

## Appendix I, Groundwater

# **Attachment I-1      C2VSimFG Results for Model Subregions**

This Attachment provides simulated groundwater pumping and groundwater-surface water interaction flow for each subregion defined in the C2VSimFG model (Figure I.2-1).

### **I-1.1      Groundwater Pumping**

#### **I-1.1.1      Annual Groundwater Pumping**

Table I.1-1 through Table I.1-21 provide the annual simulated groundwater pumping through the model simulation period for each of the 21 model subregions.

Table I.1-1. Simulated Groundwater Pumping in C2VSimFG Subregion 1 (SR1)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	55,882	55,937	55,844	55,772	55,843	55,708	55,952	55870
2	W, W	58,462	58,384	58,343	58,521	58,424	58,418	58,493	58393
3	C, C	61,356	61,201	62,355	62,325	62,380	62,166	64,124	61320
4	C, C	76,356	78,162	82,852	82,880	82,862	82,952	103,700	79728
5	AN, W	59,956	61,454	60,090	60,152	60,021	59,981	63,678	59446
6	BN, AN	61,436	60,661	62,210	61,293	61,928	62,132	60,703	61096
7	AN, W	59,453	59,349	59,462	59,440	59,565	59,628	59,314	59229
8	D, D	62,974	62,367	62,739	62,810	63,142	62,990	62,750	62660
9	W, W	55,869	55,928	55,816	55,822	55,803	55,771	55,898	55707
10	W, W	55,327	55,380	55,318	55,483	55,423	55,439	55,376	55329
11	W, AN	60,511	60,573	60,573	60,470	60,459	60,622	60,593	60423
12	D, D	62,888	63,060	63,187	63,139	63,207	63,067	63,184	63165
13	W, W	59,631	59,554	59,566	59,642	59,602	59,543	59,540	59690
14	D, D	72,008	71,053	74,288	74,011	73,921	73,904	79,482	72155
15	C, C	75,129	72,476	79,020	78,968	78,846	78,887	80,268	78252
16	D, C	69,429	68,007	70,056	70,389	70,280	70,316	69,366	69933
17	C, C	71,112	70,188	68,392	67,863	68,412	68,427	71,010	69141
18	C, C	82,399	82,105	86,962	86,783	86,924	86,949	88,680	85171
19	C, C	87,447	88,052	89,611	89,654	89,615	89,671	90,844	86610
20	AN, W	60,004	60,359	60,347	60,321	60,370	60,198	60,354	59837
21	C, C	71,204	71,158	75,545	75,237	75,829	75,637	78,615	72382
22	W, W	63,400	63,417	64,766	64,638	64,771	64,318	64,760	63792
23	W, W	59,430	59,408	59,371	59,374	59,472	59,319	59,332	59326

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	61,368	61,232	61,265	61,350	61,426	61,287	61,325	61275
25	W, W	55,731	55,778	55,651	55,615	55,712	55,598	55,603	55782
26	W, AN	60,067	59,978	60,124	60,067	59,972	59,914	59,937	60046
27	AN, AN	60,297	60,212	60,325	60,231	60,257	60,312	60,124	60259
28	D, D	62,212	61,832	62,946	62,975	62,454	62,336	65,569	62313
29	D, D	65,737	65,856	65,933	65,961	65,657	65,817	66,350	65761
30	AN, BN	61,992	62,070	62,002	61,978	61,918	62,045	61,993	62035
31	BN, D	64,444	64,493	64,422	64,481	64,463	64,453	68,218	64326
32	AN, W	58,315	58,247	58,314	58,253	58,278	58,138	58,166	58256
33	W, W	64,124	64,111	64,093	64,131	64,077	64,067	64,032	64071
34	D, C	65,681	65,895	65,760	65,668	65,772	65,775	69,313	65657
35	C, C	69,648	68,082	72,574	72,487	70,852	70,563	76,860	70430
36	D, BN	68,904	67,098	69,338	69,342	68,237	67,423	72,587	68189
37	BN, AN	59,474	59,127	59,358	59,416	59,214	59,108	59,426	59202
38	W, W	57,951	57,882	57,928	57,963	57,948	57,977	57,944	57929
39	BN, D	62,479	62,502	62,348	62,492	62,455	62,444	62,498	62488
40	D, C	69,794	69,455	73,386	73,321	73,156	73,159	76,337	71225
41	C, C	85,834	85,776	93,521	93,489	93,404	93,382	111,958	90672
42	C, C	89,363	89,173	89,546	88,076	89,537	89,565	106,369	92165
<b>Average</b>		<b>65,359</b>	<b>65,167</b>	<b>66,323</b>	<b>66,245</b>	<b>66,235</b>	<b>66,176</b>	<b>68,586</b>	<b>65732</b>
<b>Maximum</b>		<b>89,363</b>	<b>89,173</b>	<b>93,521</b>	<b>93,489</b>	<b>93,404</b>	<b>93,382</b>	<b>111,958</b>	<b>92165</b>
<b>Minimum</b>		<b>55,327</b>	<b>55,380</b>	<b>55,318</b>	<b>55,483</b>	<b>55,423</b>	<b>55,439</b>	<b>55,376</b>	<b>55329</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-2. Simulated Groundwater Pumping in C2VSimFG Subregion 2 (SR2)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	480,334	480,338	480,338	480,340	480,408	480,392	480,301	480337
2	W, W	505,475	505,470	505,572	505,577	505,576	505,611	505,712	505475
3	C, C	555,899	555,706	558,832	558,828	558,841	558,594	561,243	555860
4	C, C	650,224	649,521	654,893	654,875	654,911	654,810	659,918	653605
5	AN, W	515,675	520,384	516,304	516,291	516,419	516,409	516,463	516264
6	BN, AN	533,365	526,770	534,962	533,466	534,438	535,000	528,641	531116
7	AN, W	496,541	495,103	496,852	496,563	496,658	496,772	495,554	496082
8	D, D	551,436	550,193	550,096	550,091	553,204	552,682	550,602	550036
9	W, W	459,951	459,762	459,790	459,781	460,190	460,057	459,803	459784
10	W, W	424,818	424,809	424,800	424,812	424,646	424,651	424,800	424812
11	W, AN	537,890	537,885	537,896	537,896	537,816	537,807	537,890	537894
12	D, D	582,696	582,844	583,462	583,461	583,435	583,447	584,009	582945
13	W, W	517,652	517,350	518,301	518,301	518,075	518,046	518,181	518235
14	D, D	594,000	590,519	599,389	598,620	598,266	598,511	605,181	594566
15	C, C	616,065	609,548	627,179	626,871	626,782	626,813	633,732	625192
16	D, C	587,684	579,605	589,072	592,180	591,131	591,599	585,661	586963
17	C, C	520,081	515,571	516,902	517,111	517,521	517,550	524,363	517972
18	C, C	599,229	598,171	603,528	603,496	603,727	603,727	604,718	603141
19	C, C	648,470	648,681	649,540	649,523	649,206	649,204	649,928	648142
20	AN, W	484,521	484,591	484,557	484,572	484,576	484,595	484,534	484366
21	C, C	556,116	555,249	568,114	566,917	568,616	568,121	571,591	560868
22	W, W	504,395	504,165	507,804	507,331	507,942	507,733	508,111	505692
23	W, W	508,011	507,997	508,029	508,022	507,962	507,956	508,011	508016

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	519,755	519,750	519,755	519,755	519,628	519,629	519,769	519759
25	W, W	408,213	408,204	408,205	408,214	408,071	408,071	408,325	408214
26	W, AN	487,044	487,044	487,081	487,081	487,083	487,084	487,042	487030
27	AN, AN	504,996	504,995	505,023	505,003	504,876	504,938	505,004	504990
28	D, D	522,403	518,892	524,176	524,170	523,748	523,063	529,145	522864
29	D, D	560,709	560,258	560,726	560,725	560,742	560,204	561,775	560510
30	AN, BN	509,964	510,095	509,926	509,925	509,824	509,856	509,990	509950
31	BN, D	566,860	565,999	566,094	566,094	565,966	566,383	571,845	566861
32	AN, W	460,114	460,012	460,111	460,086	460,057	460,172	460,039	460134
33	W, W	502,463	502,468	502,462	502,466	502,410	502,401	502,454	502440
34	D, C	576,816	577,196	577,035	577,034	577,016	577,044	581,696	576922
35	C, C	572,492	570,292	579,088	579,045	575,048	574,512	582,559	574244
36	D, BN	583,841	580,004	584,801	584,787	582,460	580,684	588,638	582403
37	BN, AN	471,656	471,136	471,616	471,624	471,331	471,082	471,898	471368
38	W, W	461,249	461,253	461,249	461,249	461,200	461,207	461,253	461249
39	BN, D	558,516	558,414	558,513	558,513	558,432	558,466	558,217	558509
40	D, C	625,646	622,230	633,089	633,084	632,473	632,556	635,654	628727
41	C, C	653,812	652,951	659,755	659,749	659,583	659,560	664,155	657797
42	C, C	629,060	632,803	634,192	628,772	634,023	634,043	634,255	631293
<b>Average</b>		<b>538,241</b>	<b>537,244</b>	<b>539,979</b>	<b>539,817</b>	<b>539,865</b>	<b>539,787</b>	<b>541,254</b>	<b>538872</b>
<b>Maximum</b>		<b>653,812</b>	<b>652,951</b>	<b>659,755</b>	<b>659,749</b>	<b>659,583</b>	<b>659,560</b>	<b>664,155</b>	<b>657797</b>
<b>Minimum</b>		<b>408,213</b>	<b>408,204</b>	<b>408,205</b>	<b>408,214</b>	<b>408,071</b>	<b>408,071</b>	<b>408,325</b>	<b>408214</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-3. Simulated Groundwater Pumping in C2VSimFG Subregion 3 (SR3)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	292,306	292,306	292,306	292,306	289,162	290,047	294,967	292280
2	W, W	308,162	308,162	309,402	309,402	306,229	307,813	313,891	308173
3	C, C	451,269	450,299	467,446	467,409	465,030	464,398	497,164	451039
4	C, C	576,011	584,901	650,488	650,465	649,388	649,133	860,221	624050
5	AN, W	354,568	356,940	359,963	359,537	356,862	358,390	368,844	359384
6	BN, AN	378,740	343,202	387,692	379,742	382,323	387,730	355,991	366972
7	AN, W	313,795	306,976	315,386	313,931	311,780	314,523	308,994	311524
8	D, D	356,010	350,171	348,793	348,798	353,661	362,627	354,380	348078
9	W, W	245,986	244,788	245,200	245,199	243,898	244,758	247,662	245125
10	W, W	242,589	242,589	242,683	242,683	239,858	239,878	243,900	242589
11	W, AN	326,358	326,350	326,732	326,637	323,472	323,528	329,338	326358
12	D, D	393,903	394,668	398,453	398,451	395,159	396,836	404,445	395311
13	W, W	338,526	334,303	346,882	346,828	342,317	342,782	346,129	346178
14	D, D	420,614	401,988	450,099	446,141	441,834	444,603	496,663	424393
15	C, C	446,702	413,907	503,451	502,314	499,200	500,697	574,063	495989
16	D, C	404,837	364,814	409,453	425,141	416,789	420,716	405,972	399081
17	C, C	472,648	452,847	438,292	439,820	442,320	443,662	521,073	452370
18	C, C	533,349	530,112	613,333	613,340	613,627	613,733	610,891	591788
19	C, C	599,360	602,156	607,953	607,856	594,661	594,752	617,443	584355
20	AN, W	323,653	324,645	324,560	324,715	322,975	324,656	324,543	322130
21	C, C	400,433	395,441	468,317	461,132	463,834	463,624	502,326	427172
22	W, W	320,251	319,185	334,935	332,905	333,066	332,596	338,188	325832
23	W, W	298,577	298,510	298,722	298,722	295,550	295,594	300,219	298604

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	305,634	305,579	305,797	305,754	302,513	302,513	308,039	305644
25	W, W	224,910	224,907	224,953	224,953	221,820	221,829	226,810	224923
26	W, AN	273,860	273,873	274,452	274,464	271,283	271,493	276,328	273925
27	AN, AN	280,781	280,781	281,188	281,188	277,915	279,882	281,796	280786
28	D, D	368,457	349,403	377,745	377,733	373,414	372,359	418,103	370715
29	D, D	361,076	354,264	355,333	355,330	355,954	352,666	362,285	354359
30	AN, BN	298,064	297,798	297,718	297,717	294,339	296,895	300,459	297602
31	BN, D	343,121	330,301	332,880	332,880	327,439	336,200	375,199	343132
32	AN, W	280,883	278,886	280,572	280,572	277,050	280,402	280,213	280870
33	W, W	292,720	292,676	292,720	292,720	289,571	290,534	296,139	292720
34	D, C	358,409	363,298	361,575	361,569	358,540	360,426	401,422	360149
35	C, C	411,487	399,262	447,599	447,376	423,202	423,224	478,901	421570
36	D, BN	450,562	430,687	455,218	455,036	440,269	434,009	488,666	442613
37	BN, AN	284,234	281,744	284,944	284,906	280,616	281,528	287,713	283520
38	W, W	268,329	268,104	268,340	268,340	265,079	265,900	271,661	268329
39	BN, D	344,943	343,976	344,929	344,929	341,102	342,741	347,356	344904
40	D, C	408,267	390,619	446,435	446,420	440,724	443,699	470,559	423844
41	C, C	580,549	576,785	667,280	666,933	665,114	666,557	867,456	627134
42	C, C	594,332	595,486	605,058	595,773	596,300	596,300	781,879	648774
<b>Average</b>		<b>369,744</b>	<b>363,754</b>	<b>382,030</b>	<b>381,621</b>	<b>378,220</b>	<b>379,434</b>	<b>408,055</b>	<b>375816</b>
<b>Maximum</b>		<b>599,360</b>	<b>602,156</b>	<b>667,280</b>	<b>666,933</b>	<b>665,114</b>	<b>666,557</b>	<b>867,456</b>	<b>648774</b>
<b>Minimum</b>		<b>224,910</b>	<b>224,907</b>	<b>224,953</b>	<b>224,953</b>	<b>221,820</b>	<b>221,829</b>	<b>226,810</b>	<b>224923</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-4. Simulated Groundwater Pumping in C2VSimFG Subregion 4 (SR4)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	327,147	327,147	327,147	327,147	318,501	323,992	312,574	327147
2	W, W	343,366	335,469	343,351	343,318	334,674	342,605	333,349	343366
3	C, C	366,659	367,700	366,734	366,734	357,463	360,923	370,769	366658
4	C, C	376,026	379,280	410,170	410,170	407,873	407,872	635,199	389991
5	AN, W	343,989	344,051	345,160	345,189	336,818	345,902	351,764	343988
6	BN, AN	335,809	337,018	336,835	336,814	328,275	340,227	318,261	336802
7	AN, W	322,594	315,310	315,486	315,472	310,821	318,266	305,028	315361
8	D, D	350,488	350,450	350,118	350,170	340,724	359,131	350,830	350081
9	W, W	300,888	309,531	311,811	311,811	302,740	307,540	306,842	311811
10	W, W	311,610	311,610	311,610	311,610	301,835	301,835	311,635	311610
11	W, AN	335,892	335,903	335,903	335,903	327,039	327,039	329,374	335903
12	D, D	354,547	354,548	354,553	354,553	344,629	354,727	355,160	354548
13	W, W	337,047	337,036	337,056	337,054	328,590	333,765	326,432	337058
14	D, D	365,121	363,193	365,174	365,170	355,949	362,414	378,210	365138
15	C, C	340,382	341,101	341,467	341,464	332,056	336,309	346,885	340444
16	D, C	354,652	354,692	355,074	355,072	344,668	355,331	354,888	354811
17	C, C	321,214	321,298	306,789	306,803	306,788	310,963	331,766	312924
18	C, C	329,582	331,451	360,958	360,958	359,981	359,981	372,333	346826
19	C, C	355,770	355,483	357,493	357,796	346,315	346,315	365,464	344614
20	AN, W	323,959	321,552	325,246	325,156	316,062	322,028	313,289	324070
21	C, C	335,336	334,267	336,268	336,156	324,805	331,669	346,847	335608
22	W, W	330,201	330,199	330,228	330,224	321,288	323,144	330,279	330212
23	W, W	338,991	337,638	338,994	338,994	329,799	329,806	326,304	338980

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	326,823	326,823	326,823	326,823	317,796	317,796	325,312	326786
25	W, W	313,384	313,384	313,384	313,384	304,798	304,798	313,412	313384
26	W, AN	318,545	318,534	318,546	318,547	309,810	309,814	299,378	318546
27	AN, AN	328,723	331,233	331,236	331,236	322,148	331,539	326,167	331233
28	D, D	330,930	330,915	330,968	330,968	321,542	331,973	339,858	330952
29	D, D	337,593	337,588	337,598	337,598	327,249	345,211	337,026	337588
30	AN, BN	329,944	331,429	329,960	329,960	321,544	337,646	324,278	329960
31	BN, D	342,073	343,452	341,583	341,584	331,501	351,149	350,476	341586
32	AN, W	319,495	319,482	319,501	319,501	310,745	328,291	318,248	319494
33	W, W	324,944	322,423	324,944	324,944	315,166	321,486	327,537	324944
34	D, C	363,803	363,816	363,809	363,809	352,931	364,258	375,550	363805
35	C, C	341,774	341,754	341,813	341,813	330,904	349,052	352,142	341757
36	D, BN	365,079	365,039	364,086	364,018	354,126	369,154	375,895	364000
37	BN, AN	319,419	319,395	319,412	319,448	310,417	325,643	332,749	319376
38	W, W	323,315	324,421	322,873	322,873	314,446	318,662	325,984	322873
39	BN, D	347,947	347,972	347,962	347,962	339,034	349,016	347,770	347979
40	D, C	368,285	368,236	368,372	368,374	359,216	371,364	379,632	368326
41	C, C	380,967	380,951	418,814	418,814	416,596	421,324	626,087	397232
42	C, C	369,705	372,156	373,824	370,952	363,015	363,060	518,990	386011
<b>Average</b>		<b>339,381</b>	<b>339,403</b>	<b>341,884</b>	<b>341,818</b>	<b>333,350</b>	<b>340,786</b>	<b>356,428</b>	<b>340566</b>
<b>Maximum</b>		<b>380,967</b>	<b>380,951</b>	<b>418,814</b>	<b>418,814</b>	<b>416,596</b>	<b>421,324</b>	<b>635,199</b>	<b>397232</b>
<b>Minimum</b>		<b>300,888</b>	<b>309,531</b>	<b>306,789</b>	<b>306,803</b>	<b>301,835</b>	<b>301,835</b>	<b>299,378</b>	<b>311610</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-5. Simulated Groundwater Pumping in C2VSimFG Subregion 5 (SR5)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	372,918	372,948	372,879	372,627	372,881	372,853	373,812	372843
2	W, W	396,935	397,018	396,691	396,970	396,548	396,769	397,520	396864
3	C, C	446,548	446,329	447,782	447,430	447,196	447,176	448,503	446425
4	C, C	574,544	575,000	574,861	577,258	578,254	577,961	581,471	574445
5	AN, W	468,257	470,458	468,677	469,731	465,846	465,517	473,219	466826
6	BN, AN	414,003	411,465	414,868	414,068	412,921	413,292	411,792	412967
7	AN, W	388,270	387,977	388,496	388,291	388,097	388,004	388,959	388111
8	D, D	473,883	472,856	473,366	473,278	474,661	474,235	474,502	473324
9	W, W	350,709	350,536	350,746	350,812	350,698	350,404	351,388	351011
10	W, W	339,498	339,573	339,645	339,440	338,783	338,785	339,519	339642
11	W, AN	419,846	419,781	419,829	419,997	419,545	419,659	420,722	419797
12	D, D	463,064	463,280	462,755	462,877	462,432	462,331	464,179	462741
13	W, W	401,415	400,833	401,466	401,512	400,713	400,723	402,213	401577
14	D, D	483,167	481,737	485,436	485,162	484,747	484,862	487,914	483311
15	C, C	477,052	474,320	481,511	481,325	480,210	480,437	486,013	480913
16	D, C	460,565	446,718	457,171	458,439	457,063	457,326	453,909	449694
17	C, C	406,090	405,043	406,406	406,680	406,129	406,183	410,184	406713
18	C, C	464,882	463,755	463,785	464,367	467,770	467,985	471,730	464291
19	C, C	511,885	518,141	517,967	511,572	516,510	516,585	523,515	511334
20	AN, W	385,546	387,554	387,478	387,553	384,918	384,971	389,066	387593
21	C, C	475,110	474,766	480,328	479,886	479,713	479,432	481,745	477060
22	W, W	395,781	395,745	396,800	396,735	396,534	396,460	397,393	396313
23	W, W	384,968	384,972	384,959	385,046	383,722	383,719	384,129	385006

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	405,842	406,075	405,871	405,851	405,433	405,496	406,673	405868
25	W, W	337,997	338,106	338,039	338,033	337,733	337,850	338,177	338086
26	W, AN	378,482	378,448	378,404	378,520	378,863	378,811	379,621	378480
27	AN, AN	401,872	401,978	402,049	402,155	401,751	401,735	402,823	402038
28	D, D	472,513	471,154	473,203	473,219	472,721	472,553	475,509	472681
29	D, D	476,752	476,059	476,998	477,048	476,384	476,459	478,032	476864
30	AN, BN	392,766	392,592	392,682	392,591	392,212	392,439	393,114	392845
31	BN, D	433,963	433,980	433,953	434,103	433,447	433,687	437,856	434018
32	AN, W	370,880	371,040	371,038	370,964	370,676	370,654	370,962	370967
33	W, W	385,791	385,748	385,672	385,772	384,691	384,895	384,878	385631
34	D, C	445,883	446,096	446,044	445,958	446,151	446,263	450,217	446074
35	C, C	482,489	481,599	485,225	485,187	483,290	483,052	486,892	483322
36	D, BN	512,533	509,966	512,755	512,708	511,161	510,439	514,302	511846
37	BN, AN	430,172	429,728	429,984	430,163	429,635	430,420	430,123	430069
38	W, W	378,389	378,242	378,388	378,193	377,789	378,017	378,346	378360
39	BN, D	427,524	427,793	427,625	427,396	427,270	427,136	429,403	427691
40	D, C	503,373	502,196	506,305	506,275	505,826	505,989	507,075	504458
41	C, C	541,052	539,779	541,662	541,991	541,264	541,264	553,868	541415
42	C, C	587,281	587,309	587,422	586,850	586,948	587,015	596,405	586677
<b>Average</b>		<b>436,202</b>	<b>435,683</b>	<b>436,839</b>	<b>436,763</b>	<b>436,408</b>	<b>436,425</b>	<b>438,754</b>	<b>436100</b>
<b>Maximum</b>		<b>587,281</b>	<b>587,309</b>	<b>587,422</b>	<b>586,850</b>	<b>586,948</b>	<b>587,015</b>	<b>596,405</b>	<b>586677</b>
<b>Minimum</b>		<b>337,997</b>	<b>338,106</b>	<b>338,039</b>	<b>338,033</b>	<b>337,733</b>	<b>337,850</b>	<b>338,177</b>	<b>338086</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-6. Simulated Groundwater Pumping in C2VSimFG Subregion 6 (SR6)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	642,168	641,993	641,984	641,985	640,422	640,326	641,892	642027
2	W, W	675,336	676,134	675,760	676,619	674,836	675,674	676,229	676551
3	C, C	800,435	800,041	801,035	801,037	798,158	795,888	801,904	800584
4	C, C	933,653	932,942	933,044	932,951	932,312	931,987	951,579	933592
5	AN, W	699,333	699,262	699,430	699,442	697,745	697,829	701,854	699472
6	BN, AN	683,860	683,111	684,360	684,140	681,856	682,172	683,521	683779
7	AN, W	654,186	653,990	654,249	653,870	652,304	653,456	654,393	653858
8	D, D	717,946	718,606	718,532	718,533	716,257	716,729	719,979	717726
9	W, W	603,185	603,952	603,982	603,992	602,873	603,117	603,420	603020
10	W, W	592,881	592,881	592,067	592,606	591,289	591,301	592,062	592881
11	W, AN	702,978	700,201	703,188	703,252	701,234	701,246	702,293	702563
12	D, D	707,583	706,837	708,932	708,934	705,716	707,342	706,866	708799
13	W, W	683,402	683,122	683,805	683,805	681,761	681,321	683,094	683797
14	D, D	745,266	748,584	744,557	744,283	741,334	742,356	749,217	743803
15	C, C	737,965	737,200	739,589	739,830	737,432	735,747	739,511	738763
16	D, C	829,020	828,070	828,782	828,846	824,120	818,864	829,186	828435
17	C, C	799,256	796,209	794,906	795,082	792,452	790,566	798,891	793694
18	C, C	847,865	845,580	845,670	845,408	845,045	842,677	848,533	846301
19	C, C	869,868	870,929	871,029	870,719	868,243	879,979	871,584	869756
20	AN, W	698,158	698,625	698,636	698,890	696,758	698,154	698,595	698488
21	C, C	801,443	801,042	803,466	803,326	799,479	796,641	808,756	801431
22	W, W	690,134	690,155	689,447	690,184	688,567	690,965	690,318	690285
23	W, W	670,266	670,659	670,031	670,606	668,786	668,832	670,447	670617

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	681,571	679,700	681,572	681,491	679,226	679,168	681,312	681307
25	W, W	608,835	609,131	608,538	608,805	606,646	607,350	608,364	609126
26	W, AN	637,497	636,744	636,503	637,638	633,556	634,408	636,840	637631
27	AN, AN	664,934	664,869	665,259	665,260	662,767	662,203	665,007	665253
28	D, D	680,981	680,986	680,992	681,777	678,748	678,699	681,235	681573
29	D, D	690,627	690,153	690,900	690,900	687,277	689,236	690,972	690603
30	AN, BN	668,424	672,563	669,424	670,131	664,185	664,697	671,645	669883
31	BN, D	701,404	702,090	702,648	702,649	699,950	701,414	701,156	701272
32	AN, W	655,573	655,545	655,518	655,183	653,971	655,464	655,572	655573
33	W, W	663,210	663,875	663,875	663,646	662,317	662,451	663,746	663382
34	D, C	718,170	717,285	717,507	718,251	715,209	715,843	718,033	717566
35	C, C	717,526	717,065	719,472	719,460	716,051	716,647	720,580	717707
36	D, BN	827,875	825,301	828,841	829,256	808,295	806,490	830,327	828876
37	BN, AN	629,274	628,742	629,278	628,079	627,313	628,754	629,063	629238
38	W, W	632,570	633,167	632,958	633,257	630,722	629,896	631,898	632874
39	BN, D	754,122	753,818	754,122	754,105	749,314	749,378	754,712	754060
40	D, C	771,494	770,636	772,747	772,745	766,517	766,946	773,100	771979
41	C, C	883,023	881,050	880,946	880,968	879,817	879,328	898,174	881415
42	C, C	846,173	847,568	846,728	847,408	845,040	841,366	863,800	846106
<b>Average</b>		<b>719,511</b>	<b>719,296</b>	<b>719,626</b>	<b>719,746</b>	<b>716,807</b>	<b>716,974</b>	<b>721,420</b>	<b>719420</b>
<b>Maximum</b>		<b>933,653</b>	<b>932,942</b>	<b>933,044</b>	<b>932,951</b>	<b>932,312</b>	<b>931,987</b>	<b>951,579</b>	<b>933592</b>
<b>Minimum</b>		<b>592,881</b>	<b>592,881</b>	<b>592,067</b>	<b>592,606</b>	<b>591,289</b>	<b>591,301</b>	<b>592,062</b>	<b>592881</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-7. Simulated Groundwater Pumping in C2VSimFG Subregion 7 (SR7)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	348,383	348,913	348,928	349,046	349,161	349,309	347,496	349294
2	W, W	362,630	362,969	363,346	363,329	362,730	363,135	362,802	362612
3	C, C	378,183	378,161	378,673	378,676	378,443	390,309	377,753	378164
4	C, C	424,250	424,169	411,629	411,599	411,873	423,013	422,116	419426
5	AN, W	374,888	388,554	373,558	373,140	372,908	374,496	375,532	374248
6	BN, AN	369,480	370,199	369,464	370,473	370,910	380,640	368,422	370375
7	AN, W	359,796	357,342	359,322	359,568	359,914	359,160	358,746	360117
8	D, D	385,010	385,034	384,281	384,620	384,846	397,455	383,641	384629
9	W, W	340,197	339,762	339,076	339,934	339,453	339,002	339,924	339179
10	W, W	325,645	325,204	325,086	325,227	325,401	326,295	326,432	324389
11	W, AN	379,806	380,537	379,679	379,782	379,159	379,965	379,629	379631
12	D, D	389,039	389,332	389,249	389,185	389,543	389,664	386,894	389157
13	W, W	377,329	378,374	377,203	377,947	377,946	378,316	378,406	378098
14	D, D	389,311	388,912	388,742	388,643	389,605	402,062	388,314	388166
15	C, C	384,028	383,772	383,632	383,964	384,017	396,474	384,641	384058
16	D, C	393,179	393,078	393,064	393,037	393,117	405,609	391,532	393118
17	C, C	358,227	357,302	352,216	351,738	351,648	363,773	358,078	353820
18	C, C	383,024	385,086	372,925	373,057	373,045	384,900	383,224	378858
19	C, C	395,427	395,190	393,226	393,152	392,533	403,764	394,620	388886
20	AN, W	374,662	375,684	374,528	375,047	374,375	375,599	375,769	373809
21	C, C	392,540	392,523	393,156	392,500	393,278	403,652	391,597	392168
22	W, W	376,213	375,881	376,164	374,794	375,053	375,631	374,177	376164
23	W, W	372,912	373,043	373,268	373,092	373,119	373,230	371,278	373023

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	388,542	388,052	387,844	388,157	388,283	387,737	387,490	388200
25	W, W	348,528	349,416	351,337	350,799	351,052	351,415	349,031	351243
26	W, AN	362,041	362,769	363,252	362,740	362,864	363,430	362,488	362140
27	AN, AN	392,258	391,740	392,969	392,301	392,298	392,959	392,889	392844
28	D, D	393,199	393,102	393,108	392,524	392,181	401,967	391,644	393212
29	D, D	397,940	397,756	397,840	397,209	397,384	397,242	396,566	397425
30	AN, BN	384,031	384,004	383,774	383,876	383,977	384,460	383,236	383903
31	BN, D	401,596	401,426	402,213	402,158	401,676	400,267	399,457	401610
32	AN, W	369,532	366,799	369,276	368,962	368,090	368,842	368,584	369755
33	W, W	379,084	377,971	378,623	379,865	378,853	379,510	378,418	378417
34	D, C	395,680	394,479	394,732	395,218	395,214	395,359	392,536	395356
35	C, C	398,442	398,004	397,871	397,933	398,779	409,553	396,320	397688
36	D, BN	405,704	405,565	405,532	405,220	405,294	415,580	403,609	405951
37	BN, AN	370,409	370,483	371,394	371,457	370,219	370,956	370,851	370033
38	W, W	362,254	360,664	361,665	361,603	361,758	362,039	362,444	362176
39	BN, D	373,717	373,831	373,358	373,632	374,016	374,306	373,262	373712
40	D, C	392,167	391,925	392,043	392,383	392,352	392,621	391,258	392260
41	C, C	409,509	409,437	396,053	395,798	396,281	404,224	406,275	403743
42	C, C	407,829	408,422	406,355	406,423	407,574	413,855	408,990	402847
<b>Average</b>		<b>380,158</b>	<b>380,354</b>	<b>379,039</b>	<b>379,043</b>	<b>379,053</b>	<b>383,376</b>	<b>379,437</b>	<b>379379</b>
<b>Maximum</b>		<b>424,250</b>	<b>424,169</b>	<b>411,629</b>	<b>411,599</b>	<b>411,873</b>	<b>423,013</b>	<b>422,116</b>	<b>419426</b>
<b>Minimum</b>		<b>325,645</b>	<b>325,204</b>	<b>325,086</b>	<b>325,227</b>	<b>325,401</b>	<b>326,295</b>	<b>326,432</b>	<b>324389</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-8. Simulated Groundwater Pumping in C2VSimFG Subregion 8 (SR8)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	838,846	839,778	838,707	838,738	838,551	838,397	869,386	838336
2	W, W	913,491	912,918	913,191	913,271	913,378	917,665	944,608	913357
3	C, C	1,145,850	1,148,650	1,145,351	1,145,492	1,145,351	1,145,586	1,150,442	1145486
4	C, C	1,176,454	1,176,362	1,176,322	1,175,489	1,176,092	1,176,395	1,176,580	1176266
5	AN, W	917,786	917,387	917,918	917,667	917,765	921,567	958,089	917478
6	BN, AN	915,961	915,961	915,947	916,057	915,461	919,739	951,395	915872
7	AN, W	845,418	845,479	845,518	845,755	845,806	849,745	887,585	845905
8	D, D	1,015,965	1,015,938	1,015,866	1,015,698	1,015,841	1,016,271	1,058,606	1015763
9	W, W	783,116	783,397	783,108	783,646	783,246	783,462	828,102	783557
10	W, W	756,213	756,200	755,830	755,924	756,189	756,211	799,499	756044
11	W, AN	945,213	945,171	945,644	945,572	945,089	945,803	982,428	945116
12	D, D	975,830	975,858	975,662	975,750	975,872	975,559	1,015,078	975492
13	W, W	898,604	898,386	898,352	898,390	898,484	898,507	938,704	898224
14	D, D	1,044,164	1,044,096	1,043,472	1,044,333	1,044,072	1,043,938	1,050,762	1044317
15	C, C	1,050,287	1,050,566	1,050,317	1,050,712	1,050,273	1,050,325	1,051,143	1050496
16	D, C	1,050,709	1,050,719	1,050,948	1,051,073	1,050,604	1,051,070	1,051,644	1051050
17	C, C	1,017,731	1,017,334	1,017,744	1,017,772	1,017,796	1,017,828	1,018,324	1017724
18	C, C	1,050,935	1,050,632	1,050,732	1,050,930	1,050,914	1,051,026	1,051,350	1050860
19	C, C	1,084,859	1,084,391	1,085,280	1,084,959	1,084,959	1,085,201	1,084,783	1084924
20	AN, W	907,481	907,407	907,232	907,475	907,403	907,315	947,394	907436
21	C, C	1,054,166	1,053,396	1,053,007	1,053,321	1,052,970	1,053,338	1,058,458	1053076
22	W, W	880,542	880,658	880,789	880,590	880,619	880,441	921,356	880674
23	W, W	906,204	903,818	906,012	906,273	906,222	906,144	940,051	906144

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	946,350	944,684	945,254	945,132	945,240	945,204	989,803	944950
25	W, W	755,779	755,629	755,842	755,981	755,759	755,919	802,416	755921
26	W, AN	837,913	838,023	837,846	837,941	837,984	841,924	863,846	837986
27	AN, AN	904,155	904,387	904,372	904,205	904,002	904,524	926,533	904336
28	D, D	994,099	993,870	993,698	993,902	993,710	994,055	1,029,870	994089
29	D, D	970,613	970,883	970,879	971,113	970,816	970,896	1,005,553	970668
30	AN, BN	935,813	935,950	935,616	936,225	935,832	936,092	976,060	935833
31	BN, D	986,565	986,832	986,899	986,426	986,909	986,100	1,025,061	986954
32	AN, W	860,242	860,287	859,855	859,949	860,069	860,014	902,506	859746
33	W, W	885,563	886,003	884,660	884,906	884,221	884,704	928,388	884795
34	D, C	1,071,839	1,072,173	1,072,004	1,072,325	1,071,951	1,072,122	1,081,494	1072008
35	C, C	1,040,564	1,040,455	1,040,542	1,040,450	1,040,654	1,040,568	1,043,379	1040426
36	D, BN	990,484	990,659	990,729	990,492	990,621	990,598	1,028,640	990543
37	BN, AN	823,372	823,316	823,574	823,492	823,364	823,506	857,400	823546
38	W, W	789,126	788,940	789,205	789,226	789,083	789,034	829,082	788979
39	BN, D	1,041,624	1,042,703	1,042,292	1,042,116	1,042,126	1,041,596	1,081,780	1042308
40	D, C	1,052,415	1,052,836	1,052,471	1,052,534	1,052,778	1,052,664	1,058,603	1052379
41	C, C	1,095,802	1,095,594	1,095,553	1,096,002	1,095,875	1,096,098	1,097,137	1095772
42	C, C	1,078,711	1,078,828	1,078,450	1,079,078	1,078,414	1,078,471	1,079,356	1078852
<b>Average</b>		<b>958,020</b>	<b>958,013</b>	<b>957,921</b>	<b>958,009</b>	<b>957,913</b>	<b>958,467</b>	<b>984,349</b>	<b>957945</b>
<b>Maximum</b>		<b>1,176,454</b>	<b>1,176,362</b>	<b>1,176,322</b>	<b>1,175,489</b>	<b>1,176,092</b>	<b>1,176,395</b>	<b>1,176,580</b>	<b>1176266</b>
<b>Minimum</b>		<b>755,779</b>	<b>755,629</b>	<b>755,830</b>	<b>755,924</b>	<b>755,759</b>	<b>755,919</b>	<b>799,499</b>	<b>755921</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-9. Simulated Groundwater Pumping in C2VSimFG Subregion 9 (SR9)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	454,604	453,420	454,708	454,742	454,903	454,757	466,710	454680
2	W, W	494,210	490,214	494,074	493,948	495,708	495,752	507,330	494069
3	C, C	524,040	522,994	524,897	524,910	525,893	525,966	531,141	523994
4	C, C	569,426	569,084	569,853	570,003	570,116	570,232	570,080	569697
5	AN, W	527,646	520,473	527,616	527,666	529,568	529,684	540,640	527614
6	BN, AN	538,586	534,829	538,693	538,083	540,130	540,085	549,503	538062
7	AN, W	494,272	493,623	494,079	493,802	495,926	495,598	506,378	493987
8	D, D	546,880	540,603	547,860	547,864	549,911	549,973	559,933	547465
9	W, W	460,716	459,611	461,160	461,174	461,462	461,587	473,679	461201
10	W, W	424,160	424,048	423,942	423,961	424,496	424,529	435,184	424115
11	W, AN	542,082	541,081	541,061	541,334	541,291	541,556	556,272	541367
12	D, D	558,320	556,387	559,388	559,529	560,954	560,567	569,157	559574
13	W, W	492,535	491,570	492,923	492,915	493,130	493,162	507,315	493091
14	D, D	538,480	535,995	539,653	539,884	540,775	540,843	546,858	538616
15	C, C	539,956	537,302	542,776	542,371	542,812	542,860	544,134	542064
16	D, C	553,216	551,966	554,871	554,295	556,248	555,676	559,785	554527
17	C, C	506,628	503,358	505,286	506,539	505,216	505,168	509,201	506712
18	C, C	535,943	533,515	534,619	535,784	534,507	534,741	538,089	535984
19	C, C	564,375	560,146	562,847	561,809	562,939	562,564	563,756	563057
20	AN, W	506,923	501,796	503,988	503,778	505,008	505,120	518,769	503437
21	C, C	569,648	565,662	571,940	571,139	572,997	572,708	580,229	568635
22	W, W	515,307	514,185	516,008	515,913	516,334	516,319	531,582	515147
23	W, W	528,739	528,608	529,054	529,008	529,012	528,920	544,654	528635

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	515,779	511,758	513,105	513,127	512,751	512,709	527,016	512938
25	W, W	464,606	464,528	464,539	464,512	464,620	464,512	476,048	464618
26	W, AN	479,112	478,805	478,804	478,824	478,867	478,626	491,956	478752
27	AN, AN	522,518	517,387	522,520	522,572	525,280	525,249	535,706	522241
28	D, D	547,827	543,084	549,074	549,122	550,901	551,005	556,361	548087
29	D, D	536,355	533,920	537,437	537,595	539,320	539,264	546,875	537334
30	AN, BN	500,491	496,538	498,769	498,631	501,164	500,872	512,307	498728
31	BN, D	548,099	539,528	545,907	545,994	549,907	549,748	557,351	545901
32	AN, W	485,479	483,989	485,179	485,220	486,963	486,791	499,818	485229
33	W, W	512,581	512,303	512,270	512,102	512,324	512,190	522,868	512260
34	D, C	544,458	542,874	544,896	544,937	546,663	546,647	550,282	545078
35	C, C	537,481	535,480	538,787	538,832	540,662	540,158	544,390	538314
36	D, BN	535,858	534,045	537,396	537,307	538,174	538,064	539,644	536974
37	BN, AN	476,858	475,892	477,587	477,689	479,327	479,150	484,813	477322
38	W, W	485,345	485,040	485,328	485,320	485,393	485,335	493,850	485259
39	BN, D	563,449	562,493	562,875	562,891	564,152	564,159	574,516	562886
40	D, C	578,128	577,408	579,584	579,549	581,312	581,292	587,154	579695
41	C, C	558,440	558,073	558,589	558,838	558,675	558,736	561,314	558809
42	C, C	539,978	538,972	538,600	539,888	538,824	538,880	539,880	539894
<b>Average</b>		<b>521,894</b>	<b>519,585</b>	<b>521,965</b>	<b>521,986</b>	<b>522,967</b>	<b>522,899</b>	<b>531,251</b>	<b>521811</b>
<b>Maximum</b>		<b>578,128</b>	<b>577,408</b>	<b>579,584</b>	<b>579,549</b>	<b>581,312</b>	<b>581,292</b>	<b>587,154</b>	<b>579695</b>
<b>Minimum</b>		<b>424,160</b>	<b>424,048</b>	<b>423,942</b>	<b>423,961</b>	<b>424,496</b>	<b>424,529</b>	<b>435,184</b>	<b>424115</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-10. Simulated Groundwater Pumping in C2VSimFG Subregion 10 (SR10)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	288,610	271,068	286,549	286,409	288,630	288,462	438,180	286952
2	W, W	370,367	315,541	368,831	368,687	395,757	395,556	542,246	367889
3	C, C	517,362	496,258	528,469	528,510	534,834	535,631	584,428	518393
4	C, C	810,852	707,587	710,958	782,234	713,088	713,492	1,048,950	721147
5	AN, W	370,347	368,190	368,324	369,285	395,963	396,036	549,484	368668
6	BN, AN	403,761	358,630	403,820	398,692	419,815	422,560	524,316	396133
7	AN, W	303,391	291,065	301,793	299,770	332,169	332,613	448,869	301228
8	D, D	442,754	367,845	456,252	456,405	478,698	478,263	704,402	452341
9	W, W	297,306	279,530	300,963	301,063	300,251	300,476	479,395	300298
10	W, W	234,437	233,924	234,341	234,470	234,124	234,471	367,107	234660
11	W, AN	306,782	298,064	299,476	299,040	299,643	299,389	467,909	298760
12	D, D	445,981	422,157	458,518	458,466	478,314	478,012	581,819	461550
13	W, W	313,466	307,575	319,147	319,155	322,518	322,427	487,954	320319
14	D, D	454,815	424,366	472,669	472,994	484,690	484,378	552,020	458061
15	C, C	525,185	491,193	556,426	556,563	559,133	558,995	800,729	552301
16	D, C	542,764	522,695	551,481	550,518	569,175	568,165	801,681	549011
17	C, C	616,758	577,118	600,699	617,970	599,331	599,145	673,154	618347
18	C, C	769,005	739,925	748,416	756,326	747,321	747,116	831,272	756316
19	C, C	754,037	730,659	742,644	754,074	741,403	741,305	757,929	742160
20	AN, W	418,056	372,624	389,221	386,544	411,483	411,027	568,887	385134
21	C, C	552,022	501,360	582,054	573,904	591,704	588,197	665,386	540521
22	W, W	341,044	331,391	349,960	348,507	351,108	350,539	516,682	340202
23	W, W	316,678	315,266	318,056	318,248	318,376	318,582	504,246	315919

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	308,876	271,069	301,949	301,874	299,274	298,410	445,370	300336
25	W, W	239,527	239,215	239,327	239,608	239,828	239,886	382,839	239561
26	W, AN	282,778	278,891	279,941	279,595	279,807	279,659	447,829	278743
27	AN, AN	395,316	331,256	396,433	396,878	433,983	434,068	557,484	394480
28	D, D	462,908	403,495	476,717	476,598	499,001	497,540	551,743	466332
29	D, D	468,422	439,629	480,074	480,097	502,008	501,072	758,339	480399
30	AN, BN	429,488	386,164	418,673	418,676	445,090	436,836	634,430	415590
31	BN, D	469,243	380,869	455,693	455,785	499,875	500,055	576,809	456363
32	AN, W	303,951	284,095	299,815	299,707	321,747	321,830	471,208	299824
33	W, W	290,226	284,141	286,624	286,685	287,522	287,525	429,563	286293
34	D, C	417,894	379,333	420,902	420,658	443,190	443,141	514,895	421733
35	C, C	484,183	461,851	502,092	501,728	523,883	519,566	816,390	497945
36	D, BN	566,524	546,200	583,778	582,682	595,270	594,689	703,696	578453
37	BN, AN	431,938	412,568	440,410	440,634	459,379	456,849	527,426	434527
38	W, W	287,500	282,226	288,312	288,663	289,915	289,346	421,036	287419
39	BN, D	380,899	354,074	365,450	365,507	385,636	385,583	538,037	365550
40	D, C	452,025	437,864	465,820	465,757	484,845	484,643	562,946	467120
41	C, C	769,488	694,519	705,413	727,912	705,428	705,217	800,167	718650
42	C, C	719,870	713,809	705,941	718,344	705,308	705,376	776,719	718478
<b>Average</b>		<b>441,829</b>	<b>412,031</b>	<b>439,582</b>	<b>442,505</b>	<b>451,631</b>	<b>451,098</b>	<b>590,809</b>	<b>437955</b>
<b>Maximum</b>		<b>810,852</b>	<b>739,925</b>	<b>748,416</b>	<b>782,234</b>	<b>747,321</b>	<b>747,116</b>	<b>1,048,950</b>	<b>756316</b>
<b>Minimum</b>		<b>234,437</b>	<b>233,924</b>	<b>234,341</b>	<b>234,470</b>	<b>234,124</b>	<b>234,471</b>	<b>367,107</b>	<b>234660</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-11. Simulated Groundwater Pumping in C2VSimFG Subregion 11 (SR11)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	298,907	298,889	298,891	298,888	298,894	298,897	298,817	298889
2	W, W	301,848	301,839	301,844	301,805	301,782	301,846	302,126	301815
3	C, C	419,047	405,560	415,603	415,674	415,852	415,779	434,634	415852
4	C, C	585,807	580,342	585,561	585,487	585,772	585,613	609,435	585565
5	AN, W	386,007	386,072	386,013	385,980	385,993	386,015	387,447	386010
6	BN, AN	338,769	338,728	338,751	338,754	338,763	338,810	338,775	338752
7	AN, W	300,535	312,984	300,540	300,536	300,540	300,616	300,614	300545
8	D, D	350,199	346,885	346,916	346,913	346,916	346,925	350,187	346909
9	W, W	269,656	269,661	269,608	269,587	269,569	269,574	271,939	269592
10	W, W	273,632	273,646	273,649	273,635	273,644	273,628	274,449	273639
11	W, AN	350,630	350,596	350,628	350,658	350,654	350,647	340,136	350660
12	D, D	338,436	338,434	338,428	338,429	338,428	338,414	338,375	338391
13	W, W	318,668	318,662	318,706	318,689	318,698	318,686	320,526	318697
14	D, D	376,777	376,748	376,758	376,760	376,752	376,763	390,850	376762
15	C, C	450,244	450,655	450,209	450,191	450,180	450,232	468,320	450230
16	D, C	432,033	432,006	432,016	432,047	431,972	432,087	433,382	431978
17	C, C	391,625	391,749	391,421	391,558	391,485	391,551	398,320	391526
18	C, C	396,410	396,522	396,156	396,509	396,587	396,528	401,692	396312
19	C, C	399,863	399,539	399,716	399,578	399,851	399,714	404,800	399858
20	AN, W	341,600	335,059	338,108	337,807	338,071	337,917	344,920	343227
21	C, C	391,551	392,901	392,274	392,231	391,906	392,080	396,121	391562
22	W, W	294,582	293,537	294,982	295,006	294,954	294,990	293,515	294435
23	W, W	325,913	326,906	326,119	326,021	325,934	326,123	324,984	326019

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	322,332	332,429	332,076	332,180	332,007	332,221	319,738	332136
25	W, W	248,630	256,229	256,239	256,246	256,244	256,245	248,993	256243
26	W, AN	304,984	304,781	305,039	304,955	305,028	304,996	297,868	304829
27	AN, AN	323,679	323,729	323,566	323,642	323,691	323,663	323,971	323674
28	D, D	335,945	336,101	336,094	336,075	336,091	336,096	336,844	336096
29	D, D	343,425	343,448	343,536	343,607	343,508	343,590	345,462	343522
30	AN, BN	316,779	316,876	316,851	316,886	316,893	316,868	324,518	316874
31	BN, D	329,867	329,806	329,767	329,619	329,880	329,835	331,919	329859
32	AN, W	266,943	266,954	279,254	279,185	279,226	279,230	266,801	279312
33	W, W	286,574	286,728	286,745	286,799	286,758	286,764	277,852	286734
34	D, C	374,000	375,988	373,788	373,878	374,003	373,804	378,136	373739
35	C, C	410,373	409,986	410,440	410,383	410,352	410,283	412,081	410437
36	D, BN	365,981	365,850	366,012	365,952	365,958	365,989	368,569	366012
37	BN, AN	280,372	280,275	280,345	280,371	280,291	280,248	280,671	280335
38	W, W	273,752	278,091	273,786	273,770	273,793	273,821	275,506	273743
39	BN, D	359,615	359,401	359,524	359,365	359,469	359,566	358,718	359684
40	D, C	401,487	401,556	401,675	401,700	401,763	401,528	402,455	401706
41	C, C	485,249	484,832	485,050	485,690	484,952	484,790	502,033	485147
42	C, C	456,241	456,053	455,923	456,292	456,135	456,076	474,514	456114
<b>Average</b>		<b>352,833</b>	<b>353,025</b>	<b>353,300</b>	<b>353,318</b>	<b>353,315</b>	<b>353,311</b>	<b>355,976</b>	<b>353415</b>
<b>Maximum</b>		<b>585,807</b>	<b>580,342</b>	<b>585,561</b>	<b>585,487</b>	<b>585,772</b>	<b>585,613</b>	<b>609,435</b>	<b>585565</b>
<b>Minimum</b>		<b>248,630</b>	<b>256,229</b>	<b>256,239</b>	<b>256,246</b>	<b>256,244</b>	<b>256,245</b>	<b>248,993</b>	<b>256243</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-12. Simulated Groundwater Pumping in C2VSimFG Subregion 12 (SR12)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	492,905	492,880	492,837	492,841	493,000	492,915	493,974	492876
2	W, W	425,844	425,754	425,916	425,787	426,058	426,058	426,899	425771
3	C, C	649,275	649,206	649,302	649,278	649,196	649,055	649,981	649144
4	C, C	778,614	778,497	778,508	778,861	778,596	778,694	778,895	778632
5	AN, W	696,273	696,378	696,358	696,344	696,236	696,378	696,358	696351
6	BN, AN	557,643	557,605	557,631	557,650	557,627	557,496	557,624	557623
7	AN, W	496,278	496,266	496,345	496,260	496,334	496,296	496,328	496357
8	D, D	574,120	573,932	574,108	574,058	574,131	574,127	574,042	574120
9	W, W	374,746	374,658	374,876	374,598	374,778	374,772	374,813	374754
10	W, W	431,041	431,030	431,022	431,057	430,897	430,946	431,312	431041
11	W, AN	555,733	555,552	555,750	555,736	555,724	555,691	555,842	555547
12	D, D	572,110	572,136	571,828	571,860	571,840	571,723	572,362	571856
13	W, W	511,202	511,216	511,310	511,271	511,341	511,372	511,375	511207
14	D, D	603,982	603,912	603,990	603,896	603,979	603,982	604,431	603967
15	C, C	748,480	748,612	748,365	748,264	748,256	748,356	748,808	748376
16	D, C	809,042	809,063	809,310	809,330	809,350	809,349	809,274	809318
17	C, C	724,661	724,421	724,096	724,390	724,385	724,328	724,464	724654
18	C, C	744,591	744,429	744,382	744,472	744,496	744,486	744,841	744525
19	C, C	755,720	755,483	755,701	755,223	755,675	755,684	755,714	755780
20	AN, W	607,303	587,997	597,506	596,034	596,814	596,406	613,420	611845
21	C, C	700,516	704,897	703,021	703,267	703,117	703,197	699,953	699582
22	W, W	438,738	440,498	439,785	439,999	439,912	439,938	438,258	438016
23	W, W	511,922	511,844	511,912	511,921	511,904	511,904	511,897	511788

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	525,576	525,580	525,575	525,531	525,546	525,574	525,563	525576
25	W, W	366,181	366,108	365,950	366,201	366,096	366,208	366,011	366221
26	W, AN	473,773	473,714	473,776	473,744	473,775	473,742	473,778	473754
27	AN, AN	516,040	515,966	516,103	516,071	516,109	516,032	515,987	516131
28	D, D	557,747	557,688	557,780	557,728	557,651	557,780	557,318	557726
29	D, D	568,057	567,981	568,049	567,906	568,070	568,024	568,138	568053
30	AN, BN	524,544	524,573	524,677	524,579	524,665	524,609	547,362	524633
31	BN, D	545,046	544,930	545,075	545,012	545,061	545,099	550,944	545072
32	AN, W	395,609	395,837	395,743	395,724	395,683	395,708	395,720	395785
33	W, W	407,581	407,581	407,532	407,551	407,581	407,565	407,448	407484
34	D, C	621,578	621,502	621,579	621,580	621,603	621,365	621,976	621497
35	C, C	752,216	752,236	751,981	752,193	752,240	752,015	752,168	752331
36	D, BN	617,869	617,768	617,613	617,643	617,806	617,659	623,227	617860
37	BN, AN	463,640	463,675	463,711	463,714	463,727	463,684	464,709	463690
38	W, W	378,022	378,065	378,065	378,040	378,065	378,065	378,029	377893
39	BN, D	562,176	562,098	561,932	562,220	561,948	562,078	561,735	561907
40	D, C	751,075	750,983	750,724	750,912	751,028	750,850	750,979	750873
41	C, C	825,230	824,777	824,985	825,084	824,986	824,374	825,114	824527
42	C, C	765,401	765,865	765,698	765,554	765,204	765,547	765,756	765698
<b>Average</b>		<b>580,431</b>	<b>580,076</b>	<b>580,248</b>	<b>580,223</b>	<b>580,250</b>	<b>580,217</b>	<b>581,496</b>	<b>580472</b>
<b>Maximum</b>		<b>825,230</b>	<b>824,777</b>	<b>824,985</b>	<b>825,084</b>	<b>824,986</b>	<b>824,374</b>	<b>825,114</b>	<b>824527</b>
<b>Minimum</b>		<b>366,181</b>	<b>366,108</b>	<b>365,950</b>	<b>366,201</b>	<b>366,096</b>	<b>366,208</b>	<b>366,011</b>	<b>366221</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-13. Simulated Groundwater Pumping in C2VSimFG Subregion 13 (SR13)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	1,733,066	1,733,567	1,733,272	1,733,310	1,733,421	1,733,245	1,733,989	1733424
2	W, W	1,811,247	1,810,828	1,811,030	1,811,269	1,811,082	1,811,176	1,811,492	1810945
3	C, C	2,069,434	2,069,200	2,069,252	2,069,446	2,069,034	2,069,347	2,070,238	2069184
4	C, C	2,340,312	2,331,083	2,330,924	2,337,401	2,330,745	2,330,336	2,361,123	2332145
5	AN, W	1,739,078	1,738,305	1,739,188	1,739,060	1,726,795	1,726,949	1,750,396	1739262
6	BN, AN	1,791,400	1,791,603	1,791,929	1,791,504	1,791,511	1,791,614	1,791,970	1791159
7	AN, W	1,703,190	1,703,117	1,703,200	1,703,055	1,702,926	1,702,746	1,703,678	1703051
8	D, D	1,972,255	1,972,060	1,972,276	1,972,276	1,972,451	1,972,477	1,984,154	1972392
9	W, W	1,501,459	1,501,019	1,501,608	1,501,585	1,501,649	1,501,684	1,507,443	1501393
10	W, W	1,331,479	1,331,516	1,331,583	1,331,705	1,331,318	1,331,436	1,332,672	1331480
11	W, AN	1,986,204	1,986,164	1,986,249	1,986,598	1,989,869	1,986,188	1,986,891	1986113
12	D, D	2,030,046	2,028,639	2,030,396	2,029,940	2,026,029	2,030,344	2,034,779	2030181
13	W, W	1,725,417	1,725,520	1,725,455	1,725,300	1,725,494	1,725,475	1,725,696	1725333
14	D, D	1,943,438	1,943,120	1,943,508	1,943,191	1,943,208	1,943,095	1,943,767	1943265
15	C, C	2,056,598	2,056,077	2,056,665	2,056,880	2,055,538	2,056,357	2,081,906	2056795
16	D, C	2,221,730	2,221,676	2,222,330	2,222,416	2,221,622	2,220,986	2,240,028	2221931
17	C, C	2,032,937	2,032,138	2,032,443	2,031,966	2,032,051	2,032,453	2,037,135	2032482
18	C, C	2,150,734	2,149,916	2,148,866	2,149,542	2,149,485	2,148,324	2,154,912	2149646
19	C, C	2,100,438	2,100,701	2,100,736	2,100,602	2,100,239	2,100,181	2,101,611	2100348
20	AN, W	1,702,614	1,702,935	1,702,572	1,702,284	1,702,114	1,701,640	1,699,480	1702621
21	C, C	1,967,646	1,968,258	1,967,702	1,967,930	1,967,894	1,967,832	1,971,280	1967942
22	W, W	1,647,889	1,647,908	1,647,971	1,648,051	1,648,331	1,648,442	1,648,419	1647924
23	W, W	1,953,232	1,953,401	1,953,451	1,953,608	1,953,512	1,953,649	1,953,922	1953435

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	1,736,133	1,735,863	1,735,910	1,736,249	1,736,442	1,736,091	1,737,484	1736057
25	W, W	1,419,691	1,419,279	1,419,370	1,419,392	1,419,541	1,419,496	1,422,591	1419493
26	W, AN	1,705,351	1,705,133	1,705,329	1,704,942	1,705,297	1,705,367	1,705,760	1705283
27	AN, AN	1,789,529	1,789,376	1,789,334	1,789,543	1,789,261	1,789,516	1,790,313	1789554
28	D, D	1,949,143	1,948,855	1,949,179	1,948,939	1,949,005	1,949,209	1,950,496	1949361
29	D, D	2,041,916	2,041,172	2,041,964	2,041,697	2,041,184	2,041,208	2,058,820	2041715
30	AN, BN	1,871,437	1,870,633	1,871,354	1,871,798	1,871,662	1,871,161	1,873,545	1871453
31	BN, D	1,948,768	1,951,005	1,948,649	1,948,528	1,948,061	1,947,937	1,944,644	1948753
32	AN, W	1,436,692	1,436,555	1,436,436	1,436,214	1,436,097	1,435,976	1,433,327	1436553
33	W, W	1,531,351	1,527,499	1,531,006	1,530,967	1,530,985	1,531,592	1,530,307	1531223
34	D, C	2,019,915	2,020,037	2,019,773	2,019,717	2,019,036	2,019,662	2,018,538	2020484
35	C, C	1,913,952	1,914,422	1,914,102	1,913,532	1,913,247	1,913,641	1,935,726	1913802
36	D, BN	1,955,363	1,956,372	1,955,047	1,954,953	1,954,566	1,954,708	1,955,784	1955533
37	BN, AN	1,599,550	1,600,664	1,599,603	1,599,185	1,599,028	1,598,896	1,593,526	1599884
38	W, W	1,454,393	1,454,463	1,454,703	1,454,997	1,454,342	1,454,155	1,455,226	1454737
39	BN, D	2,016,346	2,016,649	2,015,985	2,015,759	2,015,183	2,016,130	2,016,367	2016229
40	D, C	2,094,503	2,093,957	2,094,420	2,094,372	2,093,571	2,093,711	2,091,028	2094105
41	C, C	2,371,210	2,366,489	2,364,199	2,366,808	2,363,960	2,363,595	2,363,132	2366154
42	C, C	2,442,718	2,444,816	2,441,791	2,442,350	2,440,526	2,441,062	2,436,908	2442216
<b>Average</b>		<b>1,876,424</b>	<b>1,876,000</b>	<b>1,875,971</b>	<b>1,876,163</b>	<b>1,875,412</b>	<b>1,875,454</b>	<b>1,879,536</b>	<b>1876072</b>
<b>Maximum</b>		<b>2,442,718</b>	<b>2,444,816</b>	<b>2,441,791</b>	<b>2,442,350</b>	<b>2,440,526</b>	<b>2,441,062</b>	<b>2,436,908</b>	<b>2442216</b>
<b>Minimum</b>		<b>1,331,479</b>	<b>1,331,516</b>	<b>1,331,583</b>	<b>1,331,705</b>	<b>1,331,318</b>	<b>1,331,436</b>	<b>1,332,672</b>	<b>1331480</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-14. Simulated Groundwater Pumping in C2VSimFG Subregion 14 (SR14)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	217,444	180,704	214,802	214,700	232,856	232,732	597,581	214422
2	W, W	334,785	207,209	328,029	327,841	371,656	371,888	822,546	326216
3	C, C	653,105	614,679	688,766	688,975	713,388	718,459	846,912	662126
4	C, C	1,261,358	1,259,735	1,280,076	1,280,872	1,284,392	1,284,945	1,282,474	1276698
5	AN, W	388,038	392,655	385,567	386,667	457,593	457,503	782,783	386352
6	BN, AN	478,246	352,370	487,188	482,050	518,461	525,437	841,074	466788
7	AN, W	245,050	217,304	245,780	240,789	304,254	305,535	599,530	241779
8	D, D	468,346	287,940	514,935	514,957	554,296	553,400	895,896	499074
9	W, W	293,660	233,400	306,004	305,938	320,629	321,201	669,948	303670
10	W, W	169,794	169,798	169,802	169,792	180,901	180,962	430,314	169800
11	W, AN	192,518	185,711	185,673	185,674	198,062	197,962	540,956	185707
12	D, D	501,029	433,636	540,486	540,452	582,688	582,697	915,440	555948
13	W, W	253,469	240,718	264,766	264,731	270,635	270,484	674,763	268310
14	D, D	506,645	432,225	553,467	553,244	594,974	594,100	768,524	513927
15	C, C	723,018	625,504	816,593	815,779	825,802	825,350	853,286	806268
16	D, C	751,380	698,441	779,038	776,164	814,339	811,682	936,513	772830
17	C, C	1,083,799	963,332	1,033,403	1,089,316	1,033,429	1,032,727	1,138,414	1088049
18	C, C	1,337,123	1,281,026	1,312,173	1,336,731	1,312,136	1,311,545	1,332,958	1335903
19	C, C	1,312,180	1,229,633	1,275,154	1,312,568	1,274,947	1,275,026	1,307,784	1275304
20	AN, W	612,542	475,919	525,638	515,918	582,399	581,117	1,069,355	510420
21	C, C	806,978	647,736	902,838	876,826	933,022	919,722	1,163,254	766609
22	W, W	346,676	318,178	365,434	357,844	386,870	383,391	867,170	331470
23	W, W	277,874	277,831	281,642	281,625	301,006	300,989	830,468	277829

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	262,261	219,092	219,242	219,298	238,296	238,342	702,582	219320
25	W, W	211,290	211,020	206,041	206,121	223,957	223,970	619,106	206104
26	W, AN	240,406	231,859	233,240	233,230	251,950	252,057	708,399	231482
27	AN, AN	589,219	399,344	594,803	594,929	686,833	686,618	1,122,065	587609
28	D, D	759,942	580,227	802,285	802,354	847,172	843,366	1,050,827	771755
29	D, D	792,353	702,693	830,856	831,042	879,755	876,360	1,159,921	829091
30	AN, BN	647,447	572,427	653,416	653,494	723,706	713,113	1,124,121	651574
31	BN, D	719,907	534,506	772,417	772,302	840,805	840,694	1,171,304	773294
32	AN, W	347,666	292,813	329,426	329,344	386,732	385,838	841,535	328382
33	W, W	218,468	213,848	213,349	213,320	231,669	231,720	609,109	213087
34	D, C	598,223	499,436	625,668	625,795	671,561	671,546	908,061	628438
35	C, C	867,453	799,571	924,391	924,461	970,862	956,792	1,116,192	911438
36	D, BN	1,199,865	1,134,830	1,263,316	1,260,966	1,289,890	1,288,155	1,321,025	1246341
37	BN, AN	803,612	743,043	830,498	830,432	875,278	867,063	1,118,019	813166
38	W, W	286,835	274,507	290,379	290,702	295,509	293,559	682,273	287204
39	BN, D	437,808	373,732	398,375	398,126	440,904	441,003	830,504	397992
40	D, C	778,501	739,899	825,831	825,817	860,738	860,415	1,136,503	830808
41	C, C	1,221,428	1,216,964	1,258,876	1,259,919	1,257,179	1,257,655	1,300,580	1260547
42	C, C	1,358,624	1,337,874	1,319,232	1,358,005	1,318,643	1,318,434	1,354,658	1358116
<b>Average</b>		<b>608,485</b>	<b>542,937</b>	<b>620,212</b>	<b>622,598</b>	<b>650,957</b>	<b>649,656</b>	<b>929,636</b>	<b>613839</b>
<b>Maximum</b>		<b>1,358,624</b>	<b>1,337,874</b>	<b>1,319,232</b>	<b>1,358,005</b>	<b>1,318,643</b>	<b>1,318,434</b>	<b>1,354,658</b>	<b>1358116</b>
<b>Minimum</b>		<b>169,794</b>	<b>169,798</b>	<b>169,802</b>	<b>169,792</b>	<b>180,901</b>	<b>180,962</b>	<b>430,314</b>	<b>169800</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-15. Simulated Groundwater Pumping in C2VSimFG Subregion 15 (SR15)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	1,364,638	1,336,529	1,361,183	1,361,028	1,363,772	1,364,028	1,409,929	1361087
2	W, W	1,408,960	1,373,441	1,406,410	1,406,348	1,415,910	1,415,204	1,473,197	1407387
3	C, C	1,776,151	1,772,209	1,776,215	1,776,259	1,748,725	1,755,209	1,815,920	1772620
4	C, C	1,884,624	1,873,158	1,873,974	1,881,031	1,869,476	1,869,588	1,895,833	1875458
5	AN, W	1,316,921	1,311,582	1,313,848	1,313,978	1,320,916	1,320,682	1,359,503	1313742
6	BN, AN	1,312,372	1,291,536	1,312,682	1,310,125	1,321,578	1,323,544	1,360,544	1306362
7	AN, W	1,271,260	1,266,187	1,269,206	1,268,542	1,277,854	1,277,914	1,303,732	1268076
8	D, D	1,618,274	1,587,313	1,618,420	1,619,016	1,625,377	1,624,939	1,681,829	1618670
9	W, W	1,156,076	1,145,273	1,150,865	1,150,790	1,150,768	1,150,601	1,227,085	1150584
10	W, W	1,091,851	1,091,737	1,091,645	1,091,885	1,091,715	1,091,956	1,133,500	1091808
11	W, AN	1,465,620	1,452,913	1,465,191	1,465,121	1,465,256	1,465,157	1,538,176	1464755
12	D, D	1,648,627	1,628,995	1,646,874	1,646,925	1,655,721	1,656,213	1,700,915	1648235
13	W, W	1,237,955	1,236,819	1,238,538	1,238,520	1,239,933	1,239,915	1,276,964	1238729
14	D, D	1,593,893	1,564,230	1,597,375	1,596,854	1,597,123	1,597,328	1,624,925	1590342
15	C, C	1,782,109	1,764,904	1,786,592	1,786,328	1,785,387	1,785,527	1,816,831	1787754
16	D, C	1,812,490	1,797,433	1,810,793	1,810,844	1,821,038	1,818,214	1,855,438	1808258
17	C, C	1,840,876	1,818,220	1,837,937	1,840,618	1,828,246	1,828,648	1,852,533	1841455
18	C, C	1,770,705	1,761,745	1,764,628	1,763,151	1,768,500	1,769,195	1,786,678	1762642
19	C, C	1,813,940	1,799,528	1,819,608	1,820,942	1,812,422	1,812,468	1,832,522	1812336
20	AN, W	1,243,778	1,214,663	1,240,810	1,240,644	1,245,561	1,245,397	1,284,622	1239332
21	C, C	1,654,460	1,626,031	1,655,853	1,654,493	1,661,991	1,662,364	1,694,994	1654606
22	W, W	1,101,599	1,097,643	1,102,384	1,101,901	1,101,514	1,101,754	1,156,169	1101841
23	W, W	1,297,121	1,269,666	1,288,819	1,289,415	1,289,107	1,289,110	1,343,933	1290684

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	1,402,318	1,387,068	1,399,228	1,398,973	1,399,175	1,399,151	1,465,327	1399592
25	W, W	1,009,019	1,010,149	1,008,148	1,008,212	1,008,381	1,008,237	1,053,060	1007684
26	W, AN	1,370,129	1,343,755	1,371,946	1,371,800	1,371,676	1,371,651	1,423,789	1371050
27	AN, AN	1,436,769	1,396,843	1,429,959	1,429,979	1,439,414	1,439,222	1,484,576	1431254
28	D, D	1,607,368	1,569,579	1,606,955	1,606,604	1,621,124	1,620,991	1,631,179	1601979
29	D, D	1,694,507	1,666,025	1,688,719	1,689,312	1,698,720	1,700,588	1,746,012	1691086
30	AN, BN	1,540,423	1,501,420	1,542,181	1,542,149	1,547,258	1,543,798	1,591,334	1540896
31	BN, D	1,673,196	1,621,455	1,659,103	1,659,272	1,672,465	1,673,929	1,714,952	1658509
32	AN, W	1,200,417	1,140,158	1,198,447	1,198,440	1,202,040	1,202,232	1,250,134	1198026
33	W, W	1,115,104	1,117,098	1,114,478	1,114,825	1,118,862	1,118,801	1,195,199	1114744
34	D, C	1,715,684	1,667,523	1,709,663	1,709,503	1,716,676	1,716,840	1,765,193	1709711
35	C, C	1,717,460	1,686,395	1,717,273	1,717,343	1,724,777	1,723,974	1,750,350	1716378
36	D, BN	1,761,478	1,741,304	1,761,701	1,761,609	1,780,273	1,780,656	1,781,188	1760196
37	BN, AN	1,566,608	1,552,373	1,565,544	1,565,699	1,571,453	1,571,376	1,619,712	1564230
38	W, W	1,167,244	1,151,945	1,161,381	1,161,385	1,161,423	1,161,332	1,228,762	1161117
39	BN, D	1,544,116	1,524,436	1,540,819	1,540,717	1,545,476	1,545,559	1,599,501	1540821
40	D, C	1,873,124	1,851,768	1,865,300	1,870,983	1,875,915	1,876,590	1,907,421	1872446
41	C, C	2,030,798	2,026,536	2,028,295	2,031,610	2,027,262	2,028,959	2,041,653	2027144
42	C, C	1,947,115	1,915,098	1,941,412	1,945,645	1,942,141	1,941,900	1,972,627	1944566
<b>Average</b>		<b>1,519,933</b>	<b>1,498,873</b>	<b>1,517,629</b>	<b>1,518,067</b>	<b>1,521,010</b>	<b>1,521,208</b>	<b>1,563,041</b>	<b>1517100</b>
<b>Maximum</b>		<b>2,030,798</b>	<b>2,026,536</b>	<b>2,028,295</b>	<b>2,031,610</b>	<b>2,027,262</b>	<b>2,028,959</b>	<b>2,041,653</b>	<b>2027144</b>
<b>Minimum</b>		<b>1,009,019</b>	<b>1,010,149</b>	<b>1,008,148</b>	<b>1,008,212</b>	<b>1,008,381</b>	<b>1,008,237</b>	<b>1,053,060</b>	<b>1007684</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-16. Simulated Groundwater Pumping in C2VSimFG Subregion 16 (SR16)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	76,207	76,233	76,085	76,205	76,207	76,231	76,198	76207
2	W, W	52,962	52,962	52,962	52,936	52,962	52,974	52,962	52960
3	C, C	244,725	244,774	244,722	244,754	244,758	244,747	244,609	244741
4	C, C	298,260	298,333	298,339	298,413	298,356	298,298	298,379	298255
5	AN, W	113,023	112,975	113,007	112,972	113,009	113,020	113,005	112982
6	BN, AN	38,209	38,209	38,209	38,209	38,209	38,209	38,209	38209
7	AN, W	63,638	63,638	63,638	63,629	63,638	63,601	63,638	63638
8	D, D	75,429	75,439	75,430	75,442	75,429	75,429	75,430	75430
9	W, W	101,496	101,455	101,486	101,462	101,494	101,508	101,492	101440
10	W, W	38,042	38,042	38,042	38,042	38,042	38,042	38,042	38042
11	W, AN	52,652	52,576	52,659	52,659	52,659	52,659	52,659	52659
12	D, D	74,714	74,782	74,708	74,696	74,703	74,714	74,714	74702
13	W, W	96,090	96,152	96,090	96,090	96,226	96,090	96,090	96090
14	D, D	148,673	148,723	148,651	148,740	148,683	148,683	148,712	148740
15	C, C	195,484	195,622	195,516	195,590	195,512	195,550	195,653	195422
16	D, C	195,700	195,660	195,663	195,661	195,672	195,695	195,678	195676
17	C, C	218,217	218,141	218,245	218,324	218,132	218,289	218,323	218265
18	C, C	151,753	151,867	151,708	151,743	151,781	151,877	151,882	151790
19	C, C	194,701	194,759	194,778	194,652	194,651	194,626	194,768	194590
20	AN, W	75,978	75,955	75,957	75,903	75,879	75,986	75,905	75940
21	C, C	132,218	132,199	132,244	132,199	132,199	132,272	132,200	132240
22	W, W	104,712	104,724	104,686	104,705	104,739	104,615	104,739	104723
23	W, W	89,028	89,054	89,028	89,028	89,028	89,028	88,955	89028

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	54,344	54,322	54,358	54,351	54,358	54,358	54,375	54358
25	W, W	70,803	70,803	70,803	70,803	70,803	70,803	70,803	70803
26	W, AN	50,393	50,386	50,386	50,393	50,393	50,393	50,393	50386
27	AN, AN	136,049	136,039	136,049	136,044	136,044	136,049	136,095	136049
28	D, D	152,772	152,795	152,722	152,770	152,757	152,772	152,792	152777
29	D, D	144,596	144,532	144,551	144,578	144,560	144,598	144,591	144546
30	AN, BN	139,999	140,116	140,087	140,087	140,117	140,117	140,059	140117
31	BN, D	105,054	105,031	105,041	105,060	105,060	105,020	105,064	105020
32	AN, W	77,386	77,386	77,391	77,386	77,386	77,386	77,386	77366
33	W, W	51,114	51,153	51,153	51,153	51,153	51,153	51,153	51153
34	D, C	176,425	176,260	176,422	176,422	176,388	176,426	176,595	176440
35	C, C	144,072	144,092	143,905	143,840	144,133	144,210	144,042	143967
36	D, BN	145,432	145,491	145,408	145,492	145,491	145,491	145,572	145489
37	BN, AN	152,072	151,991	151,983	152,162	152,067	151,991	152,191	152036
38	W, W	94,340	94,356	94,340	94,336	94,340	94,348	94,317	94359
39	BN, D	240,055	239,969	239,993	240,075	240,056	240,063	240,238	240089
40	D, C	335,354	335,445	335,450	335,318	335,410	335,329	335,534	335279
41	C, C	384,853	384,848	384,922	384,955	384,931	384,888	384,922	384908
42	C, C	394,689	394,630	394,625	394,686	394,691	394,659	394,704	394683
<b>Average</b>		<b>140,041</b>	<b>140,046</b>	<b>140,034</b>	<b>140,047</b>	<b>140,050</b>	<b>140,052</b>	<b>140,073</b>	<b>140038</b>
<b>Maximum</b>		<b>394,689</b>	<b>394,630</b>	<b>394,625</b>	<b>394,686</b>	<b>394,691</b>	<b>394,659</b>	<b>394,704</b>	<b>394683</b>
<b>Minimum</b>		<b>38,042</b>	<b>38,042</b>	<b>38,042</b>	<b>38,042</b>	<b>38,042</b>	<b>38,042</b>	<b>38,042</b>	<b>38042</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-17. Simulated Groundwater Pumping in C2VSimFG Subregion 17 (SR17)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	222,330	222,316	222,328	222,310	222,327	222,343	222,346	222189
2	W, W	326,164	326,151	326,172	326,131	326,094	326,155	326,192	326154
3	C, C	697,964	697,954	697,940	697,906	697,957	697,885	698,054	697962
4	C, C	676,468	676,518	676,454	676,381	676,486	676,508	676,474	676462
5	AN, W	216,490	216,397	216,490	216,519	216,482	216,475	216,480	216485
6	BN, AN	189,438	189,450	189,438	189,412	189,414	189,463	189,442	189398
7	AN, W	180,232	180,187	180,185	180,220	180,192	180,243	180,199	180225
8	D, D	403,641	403,595	403,584	403,605	403,616	403,632	403,653	403580
9	W, W	181,510	181,490	181,509	181,484	181,491	181,524	181,546	181519
10	W, W	156,626	156,633	156,621	156,628	156,631	156,580	156,598	156631
11	W, AN	276,691	276,674	276,581	276,688	276,837	276,716	276,774	276682
12	D, D	427,678	427,640	427,670	427,710	427,587	427,662	427,789	427667
13	W, W	218,544	218,334	218,553	218,461	218,417	218,505	218,374	218385
14	D, D	438,202	438,299	438,194	438,266	438,336	438,155	438,232	438260
15	C, C	591,736	591,431	591,602	591,618	591,664	591,676	591,692	591509
16	D, C	546,279	546,292	546,193	546,283	546,282	546,240	546,272	546298
17	C, C	575,710	575,758	575,714	575,756	575,694	575,736	575,770	575749
18	C, C	467,778	467,762	467,791	467,769	467,878	467,825	467,745	467773
19	C, C	571,768	571,780	571,768	571,739	571,765	571,748	571,695	571655
20	AN, W	218,213	218,219	218,204	218,224	218,238	218,180	218,222	218225
21	C, C	460,021	460,006	459,924	460,000	460,020	460,009	460,136	459920
22	W, W	159,127	159,136	159,117	159,130	159,094	159,133	159,130	159127
23	W, W	206,473	206,413	206,381	206,476	206,425	206,416	206,378	206413

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	263,695	263,754	263,809	263,768	263,771	263,780	263,822	263,628
25	W, W	177,972	177,985	177,953	177,946	177,949	178,018	177,927	177,989
26	W, AN	281,325	281,370	281,435	281,195	281,376	281,369	281,388	281,330
27	AN, AN	293,925	293,919	293,947	294,056	293,895	293,910	293,971	293,876
28	D, D	454,624	454,568	454,560	454,643	454,651	454,492	454,757	454,489
29	D, D	468,865	468,860	468,917	468,760	468,546	468,752	468,937	468,858
30	AN, BN	375,890	375,779	375,751	375,987	375,954	375,880	376,005	375,774
31	BN, D	485,730	485,819	485,758	485,792	485,794	485,832	485,862	485,820
32	AN, W	221,892	221,914	221,887	221,948	221,999	221,932	221,953	221,926
33	W, W	171,492	171,417	171,496	171,608	171,420	171,477	171,511	171,474
34	D, C	633,401	633,141	633,511	633,383	633,257	633,349	633,315	633,204
35	C, C	415,967	416,030	415,973	415,917	415,994	415,920	415,932	415,992
36	D, BN	467,383	467,428	467,325	467,358	467,385	467,424	467,466	467,446
37	BN, AN	379,419	379,534	379,494	379,519	379,495	379,480	379,535	379,532
38	W, W	263,749	263,748	263,740	263,703	263,766	263,720	263,718	263,734
39	BN, D	422,389	422,486	422,384	422,452	422,433	422,242	422,476	422,398
40	D, C	590,717	590,654	590,608	590,662	590,692	590,713	590,718	590,720
41	C, C	630,300	630,234	630,295	630,305	630,354	630,245	630,308	630,286
42	C, C	632,538	632,585	632,578	632,589	632,555	632,564	632,590	632,564
<b>Average</b>		<b>381,913</b>	<b>381,897</b>	<b>381,901</b>	<b>381,912</b>	<b>381,910</b>	<b>381,903</b>	<b>381,938</b>	<b>381,888</b>
<b>Maximum</b>		<b>697,964</b>	<b>697,954</b>	<b>697,940</b>	<b>697,906</b>	<b>697,957</b>	<b>697,885</b>	<b>698,054</b>	<b>697,962</b>
<b>Minimum</b>		<b>156,626</b>	<b>156,633</b>	<b>156,621</b>	<b>156,628</b>	<b>156,631</b>	<b>156,580</b>	<b>156,598</b>	<b>156,631</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-18. Simulated Groundwater Pumping in C2VSimFG Subregion 18 (SR18)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	1,123,771	1,123,084	1,123,752	1,123,499	1,123,685	1,123,636	1,124,781	1123612
2	W, W	1,205,421	1,203,989	1,205,381	1,205,300	1,205,314	1,205,369	1,206,997	1205597
3	C, C	1,779,386	1,777,404	1,779,779	1,779,763	1,779,700	1,779,567	1,788,962	1779382
4	C, C	1,889,705	1,889,682	1,889,732	1,889,687	1,891,282	1,891,335	1,891,100	1889597
5	AN, W	924,694	924,582	924,783	924,688	925,068	925,058	924,987	924702
6	BN, AN	1,082,231	1,081,558	1,082,411	1,081,879	1,082,356	1,082,334	1,083,417	1082252
7	AN, W	938,442	937,970	938,389	938,408	938,348	938,321	939,351	938211
8	D, D	1,481,962	1,480,334	1,481,918	1,481,989	1,482,194	1,482,239	1,485,880	1481739
9	W, W	901,531	900,929	901,572	901,516	901,751	901,743	904,618	901432
10	W, W	632,901	632,821	632,896	632,876	632,898	632,902	633,117	632833
11	W, AN	1,272,564	1,272,065	1,272,612	1,272,614	1,277,298	1,272,608	1,273,379	1272469
12	D, D	1,507,205	1,506,713	1,507,335	1,507,294	1,502,874	1,507,094	1,510,042	1507280
13	W, W	1,027,636	1,027,302	1,027,604	1,027,664	1,027,143	1,027,663	1,028,370	1027637
14	D, D	1,485,071	1,483,817	1,485,055	1,485,309	1,485,355	1,485,289	1,492,889	1485117
15	C, C	1,675,408	1,673,410	1,675,556	1,675,545	1,676,784	1,675,618	1,682,550	1675396
16	D, C	1,610,612	1,608,706	1,611,108	1,610,776	1,611,056	1,612,376	1,618,693	1610938
17	C, C	1,748,702	1,745,936	1,748,941	1,748,852	1,748,850	1,748,164	1,757,324	1748487
18	C, C	1,563,233	1,561,272	1,563,516	1,563,592	1,563,664	1,563,479	1,567,820	1563338
19	C, C	1,645,189	1,644,171	1,645,447	1,645,132	1,645,430	1,645,468	1,650,633	1645333
20	AN, W	1,046,518	1,046,238	1,046,477	1,046,733	1,046,453	1,046,392	1,046,087	1046436
21	C, C	1,521,560	1,519,421	1,521,816	1,521,536	1,522,912	1,522,884	1,539,910	1521525
22	W, W	739,307	738,823	739,307	739,330	739,299	739,269	741,445	739302
23	W, W	1,075,534	1,074,892	1,075,508	1,075,469	1,075,330	1,075,526	1,077,370	1075581

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	1,272,191	1,271,665	1,272,287	1,272,201	1,272,164	1,272,148	1,274,153	1272165
25	W, W	646,933	646,172	646,703	646,818	646,872	646,976	648,635	646787
26	W, AN	1,177,351	1,176,828	1,177,299	1,177,259	1,177,228	1,177,260	1,178,367	1177181
27	AN, AN	1,189,246	1,188,602	1,189,074	1,189,174	1,189,055	1,189,067	1,191,734	1189147
28	D, D	1,352,719	1,351,174	1,352,808	1,352,425	1,352,856	1,352,704	1,370,342	1352396
29	D, D	1,567,093	1,565,571	1,567,177	1,567,189	1,566,342	1,567,012	1,576,074	1567102
30	AN, BN	1,277,848	1,272,455	1,277,998	1,278,009	1,277,538	1,278,050	1,285,032	1277607
31	BN, D	1,525,792	1,526,782	1,525,756	1,525,877	1,526,051	1,525,937	1,531,926	1525531
32	AN, W	973,272	972,277	973,520	973,350	973,293	973,226	975,166	973350
33	W, W	1,022,837	1,022,129	1,022,862	1,022,434	1,022,679	1,022,841	1,024,581	1022450
34	D, C	1,735,687	1,733,658	1,735,866	1,736,160	1,736,049	1,735,895	1,743,545	1735909
35	C, C	1,424,216	1,422,581	1,424,231	1,424,237	1,424,225	1,424,198	1,429,706	1424086
36	D, BN	1,484,974	1,483,687	1,485,074	1,484,994	1,485,140	1,485,029	1,489,085	1484934
37	BN, AN	1,206,196	1,205,326	1,206,154	1,206,154	1,206,131	1,206,125	1,207,029	1206154
38	W, W	830,635	829,311	830,573	830,700	830,526	830,629	831,255	830600
39	BN, D	1,461,569	1,459,793	1,461,640	1,461,437	1,461,922	1,461,767	1,467,703	1461550
40	D, C	1,737,586	1,736,236	1,737,645	1,737,694	1,737,579	1,737,616	1,744,008	1737492
41	C, C	1,983,856	1,982,274	1,984,066	1,984,085	1,983,995	1,984,054	1,986,295	1984158
42	C, C	1,905,934	1,905,756	1,905,940	1,905,904	1,907,322	1,906,022	1,907,762	1905784
<b>Average</b>		<b>1,325,108</b>	<b>1,323,986</b>	<b>1,325,180</b>	<b>1,325,132</b>	<b>1,325,286</b>	<b>1,325,259</b>	<b>1,329,336</b>	<b>1325061</b>
<b>Maximum</b>		<b>1,983,856</b>	<b>1,982,274</b>	<b>1,984,066</b>	<b>1,984,085</b>	<b>1,983,995</b>	<b>1,984,054</b>	<b>1,986,295</b>	<b>1984158</b>
<b>Minimum</b>		<b>632,901</b>	<b>632,821</b>	<b>632,896</b>	<b>632,876</b>	<b>632,898</b>	<b>632,902</b>	<b>633,117</b>	<b>632833</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-19. Simulated Groundwater Pumping in C2VSimFG Subregion 19 (SR19)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	441,750	441,750	441,750	441,750	441,717	441,750	441,750	441717
2	W, W	413,492	413,492	413,491	413,492	413,492	413,492	413,490	413492
3	C, C	538,828	538,828	538,789	538,792	538,828	538,828	538,828	538828
4	C, C	520,462	520,462	520,462	520,427	520,462	520,462	520,443	520443
5	AN, W	373,595	373,595	373,595	373,595	373,595	373,595	373,562	373562
6	BN, AN	344,562	344,562	344,560	344,560	344,561	344,562	344,544	344562
7	AN, W	367,405	367,383	367,426	367,427	367,426	367,426	367,426	367426
8	D, D	396,721	396,721	396,721	396,721	396,721	396,721	396,685	396708
9	W, W	350,036	350,036	350,036	350,036	350,036	350,036	350,036	350036
10	W, W	346,825	346,825	346,825	346,825	346,825	346,825	346,825	346825
11	W, AN	384,958	385,032	385,032	385,023	384,986	385,032	385,032	385037
12	D, D	379,555	379,576	379,530	379,576	379,533	379,528	379,562	379525
13	W, W	328,546	328,530	328,516	328,545	328,545	328,510	328,545	328534
14	D, D	391,802	391,845	391,790	391,792	391,846	391,833	391,836	391824
15	C, C	408,950	409,047	409,014	409,025	409,040	409,035	408,957	408989
16	D, C	402,413	402,126	402,440	402,220	402,371	402,248	402,412	402412
17	C, C	513,225	513,190	513,225	513,225	513,194	513,225	513,183	513225
18	C, C	475,836	475,872	475,864	475,842	475,872	475,813	475,864	475862
19	C, C	455,852	455,852	455,852	455,817	455,852	455,884	455,852	455852
20	AN, W	283,404	283,404	283,404	283,374	283,353	283,404	283,404	283404
21	C, C	376,544	376,544	376,544	376,474	376,544	376,544	376,544	376547
22	W, W	247,116	247,116	247,116	247,116	247,081	247,116	247,116	247116
23	W, W	263,595	263,569	263,625	263,518	263,534	263,625	263,625	263625

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	253,109	253,298	253,285	253,140	253,314	253,284	253,210	253210
25	W, W	208,342	208,344	208,365	208,343	208,318	208,377	208,343	208319
26	W, AN	220,517	220,517	220,498	220,509	220,517	220,485	220,517	220511
27	AN, AN	270,084	270,057	270,100	270,084	270,124	270,154	270,084	270084
28	D, D	459,399	459,425	459,425	459,355	459,425	459,425	459,383	459409
29	D, D	466,762	466,772	466,729	466,693	466,772	466,771	466,772	466772
30	AN, BN	319,982	319,967	319,982	319,978	319,982	319,982	319,982	319982
31	BN, D	456,364	456,382	456,364	456,364	456,364	456,363	456,364	456382
32	AN, W	284,882	284,883	284,869	284,882	284,882	284,882	284,882	284882
33	W, W	203,714	203,698	203,705	203,714	203,705	203,714	203,714	203714
34	D, C	399,611	399,615	399,593	399,611	399,611	399,611	399,599	399542
35	C, C	570,115	570,115	570,122	570,115	570,115	570,064	570,088	570115
36	D, BN	551,859	551,850	551,859	551,859	551,859	551,886	551,859	551855
37	BN, AN	418,038	418,039	418,039	417,987	418,039	418,038	418,039	418036
38	W, W	208,830	208,766	208,830	208,830	208,830	208,830	208,817	208830
39	BN, D	321,143	321,143	321,138	321,143	321,143	321,143	321,143	321143
40	D, C	527,214	527,194	527,214	527,214	527,220	527,214	527,214	527214
41	C, C	666,963	666,963	666,920	666,963	666,963	666,963	666,920	666963
42	C, C	627,784	627,784	627,784	627,784	627,784	627,784	627,784	627752
<b>Average</b>		<b>391,433</b>	<b>391,433</b>	<b>391,439</b>	<b>391,422</b>	<b>391,438</b>	<b>391,440</b>	<b>391,434</b>	<b>391435</b>
<b>Maximum</b>		<b>666,963</b>	<b>666,963</b>	<b>666,920</b>	<b>666,963</b>	<b>666,963</b>	<b>666,963</b>	<b>666,920</b>	<b>666963</b>
<b>Minimum</b>		<b>203,714</b>	<b>203,698</b>	<b>203,705</b>	<b>203,714</b>	<b>203,705</b>	<b>203,714</b>	<b>203,714</b>	<b>203714</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-20. Simulated Groundwater Pumping in C2VSimFG Subregion 20 (SR20)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	794,423	794,423	794,423	794,423	794,423	794,423	794,423	794,423
2	W, W	736,098	736,098	736,098	736,098	736,098	736,098	736,098	736,098
3	C, C	1,019,061	1,019,056	1,019,023	1,019,059	1,019,061	1,019,061	1,019,084	1,019,061
4	C, C	988,507	988,507	988,517	988,507	988,488	988,511	988,510	988,507
5	AN, W	732,197	732,197	732,197	732,197	732,200	732,199	732,197	732,197
6	BN, AN	700,263	700,268	700,244	700,261	700,263	700,263	700,259	700,264
7	AN, W	714,926	714,931	714,926	714,926	714,797	714,924	714,791	714,926
8	D, D	741,479	741,451	741,479	741,480	741,480	741,478	741,478	741,480
9	W, W	713,883	713,883	713,883	713,883	713,883	713,882	713,886	713,883
10	W, W	697,850	697,850	697,850	697,810	697,850	697,766	697,849	697,850
11	W, AN	628,365	628,366	628,365	628,365	628,355	628,364	628,362	628,365
12	D, D	615,056	615,018	615,044	615,056	615,055	615,053	615,032	615,040
13	W, W	572,382	572,382	572,382	572,382	572,382	572,382	572,382	572,382
14	D, D	798,348	798,344	798,348	798,348	798,348	798,236	798,361	798,348
15	C, C	874,537	874,512	874,372	874,542	874,518	874,442	874,417	874,501
16	D, C	869,562	869,634	869,597	869,594	869,669	869,667	869,583	869,658
17	C, C	945,507	945,540	945,364	945,544	945,543	945,542	945,565	945,543
18	C, C	821,014	821,008	821,015	821,015	821,015	821,013	821,029	821,014
19	C, C	893,846	893,958	893,912	893,959	893,854	893,959	893,960	893,949
20	AN, W	608,047	608,027	608,020	607,986	607,912	608,001	607,982	607,793
21	C, C	749,790	749,733	749,773	749,773	749,846	749,741	749,777	749,889
22	W, W	627,741	627,730	627,721	627,719	627,737	627,735	627,726	627,709
23	W, W	656,761	656,780	656,769	656,767	656,758	656,756	656,738	656,772

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	628,109	628,155	628,113	628,080	628,108	628,127	628,067	628135
25	W, W	524,389	524,372	524,389	524,377	524,389	524,366	524,362	524367
26	W, AN	583,208	583,208	583,208	583,208	583,208	583,208	583,207	583208
27	AN, AN	655,908	655,909	655,892	655,909	655,908	655,908	655,908	655909
28	D, D	786,535	786,533	786,535	786,535	786,535	786,535	786,564	786596
29	D, D	886,429	886,428	886,388	886,429	886,426	886,428	886,419	886373
30	AN, BN	766,037	766,032	766,038	766,038	766,035	766,037	766,020	766037
31	BN, D	900,755	900,732	900,827	900,634	900,792	900,741	900,799	900845
32	AN, W	575,076	575,280	575,186	575,339	575,235	575,200	575,177	575186
33	W, W	544,666	544,545	544,523	544,530	544,486	544,507	544,461	544529
34	D, C	832,232	832,252	832,233	832,233	832,248	832,230	831,946	832233
35	C, C	813,589	813,655	813,610	813,610	813,608	813,606	813,680	813610
36	D, BN	787,419	787,501	787,394	787,422	787,405	787,418	787,406	787421
37	BN, AN	756,802	756,828	756,818	756,819	756,817	756,817	756,799	756819
38	W, W	577,243	577,249	577,245	577,208	577,242	577,244	577,202	577245
39	BN, D	776,169	776,090	776,161	776,170	776,168	776,168	776,150	776170
40	D, C	1,097,446	1,097,589	1,097,447	1,097,445	1,097,446	1,097,538	1,097,411	1097447
41	C, C	1,131,382	1,131,373	1,131,387	1,131,410	1,131,397	1,131,337	1,131,381	1131376
42	C, C	1,075,737	1,075,741	1,075,732	1,075,746	1,075,736	1,075,730	1,075,703	1075739
<b>Average</b>		<b>766,637</b>	<b>766,647</b>	<b>766,630</b>	<b>766,639</b>	<b>766,636</b>	<b>766,634</b>	<b>766,623</b>	<b>766640</b>
<b>Maximum</b>		<b>1,131,382</b>	<b>1,131,373</b>	<b>1,131,387</b>	<b>1,131,410</b>	<b>1,131,397</b>	<b>1,131,337</b>	<b>1,131,381</b>	<b>1131376</b>
<b>Minimum</b>		<b>524,389</b>	<b>524,372</b>	<b>524,389</b>	<b>524,377</b>	<b>524,389</b>	<b>524,366</b>	<b>524,362</b>	<b>524367</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-21. Simulated Groundwater Pumping in C2VSimFG Subregion 21 (SR21)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	613,498	613,499	613,482	613,487	613,491	613,500	613,486	613434
2	W, W	528,275	528,274	528,271	528,228	528,236	528,236	528,296	528273
3	C, C	897,927	897,881	897,763	897,778	897,831	897,861	897,798	897878
4	C, C	968,741	968,776	968,689	968,684	968,772	968,718	968,667	968769
5	AN, W	596,065	596,044	596,024	596,092	595,848	596,117	595,953	596126
6	BN, AN	479,576	479,537	479,536	479,476	479,600	479,602	479,500	479574
7	AN, W	505,438	505,401	505,425	505,410	505,450	505,399	505,378	505475
8	D, D	586,233	586,269	586,264	586,254	586,248	586,190	586,270	586160
9	W, W	482,308	482,337	482,337	482,337	482,268	482,338	482,338	482316
10	W, W	440,099	440,098	439,992	440,098	440,063	440,080	440,098	440085
11	W, AN	493,674	493,641	493,611	493,682	493,682	493,567	493,683	493603
12	D, D	531,433	531,370	531,433	531,426	531,362	531,420	531,433	531433
13	W, W	462,656	462,552	462,656	462,632	462,580	462,656	462,592	462639
14	D, D	747,143	747,184	747,163	747,101	747,215	747,141	747,098	747180
15	C, C	821,783	821,893	821,876	822,048	821,864	821,933	822,073	822027
16	D, C	840,649	840,647	840,729	840,747	840,666	840,559	840,768	840675
17	C, C	900,834	900,817	900,758	900,834	900,741	900,692	900,658	900668
18	C, C	809,816	809,819	809,912	809,893	809,842	809,557	809,883	809740
19	C, C	892,312	892,206	892,211	892,503	892,448	892,458	892,186	892372
20	AN, W	628,926	628,918	629,050	628,998	628,860	629,011	628,819	629017
21	C, C	680,877	680,857	680,775	680,973	680,842	680,859	680,961	680745
22	W, W	493,627	493,502	493,627	493,388	493,616	493,628	493,628	493626
23	W, W	539,728	539,742	539,772	539,775	539,771	539,771	539,772	539766

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	507,720	507,772	507,773	507,778	507,773	507,750	507,774	507749
25	W, W	436,059	435,965	436,074	436,074	436,074	435,904	436,060	436042
26	W, AN	592,068	591,975	592,103	592,133	592,133	592,158	591,891	592006
27	AN, AN	677,307	677,377	677,392	677,403	677,408	677,371	677,478	677364
28	D, D	912,261	912,243	912,202	912,261	912,261	912,227	912,262	912202
29	D, D	977,900	977,911	977,807	977,890	977,799	977,902	977,908	977910
30	AN, BN	820,537	820,554	820,497	820,514	820,505	820,548	820,556	820557
31	BN, D	884,677	884,552	884,578	884,583	884,678	884,536	884,673	884618
32	AN, W	644,872	644,940	644,902	644,828	644,892	644,886	644,678	644789
33	W, W	515,556	515,554	515,593	515,570	515,573	515,563	515,659	515546
34	D, C	1,030,296	1,030,167	1,030,262	1,030,296	1,030,284	1,030,296	1,030,240	1030283
35	C, C	1,205,455	1,205,546	1,205,496	1,205,487	1,205,446	1,205,339	1,205,491	1205361
36	D, BN	1,131,802	1,131,833	1,131,836	1,131,834	1,131,832	1,131,836	1,131,834	1131854
37	BN, AN	923,811	923,903	923,858	923,811	923,751	923,888	923,908	923892
38	W, W	485,576	485,705	485,705	485,712	485,711	485,711	485,711	485653
39	BN, D	782,624	782,522	782,572	782,563	782,553	782,537	782,573	782571
40	D, C	1,243,201	1,243,188	1,243,166	1,243,137	1,243,191	1,243,182	1,243,204	1243189
41	C, C	1,462,160	1,462,177	1,462,159	1,462,141	1,462,166	1,462,152	1,462,136	1462116
42	C, C	1,390,530	1,390,533	1,390,531	1,390,498	1,390,534	1,390,545	1,390,545	1390547
<b>Average</b>		<b>751,572</b>	<b>751,564</b>	<b>751,568</b>	<b>751,580</b>	<b>751,568</b>	<b>751,562</b>	<b>751,570</b>	<b>751567</b>
<b>Maximum</b>		<b>1,462,160</b>	<b>1,462,177</b>	<b>1,462,159</b>	<b>1,462,141</b>	<b>1,462,166</b>	<b>1,462,152</b>	<b>1,462,136</b>	<b>1462116</b>
<b>Minimum</b>		<b>436,059</b>	<b>435,965</b>	<b>436,074</b>	<b>436,074</b>	<b>436,074</b>	<b>435,904</b>	<b>436,060</b>	<b>436042</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

### I-1.1.2 Changes in Groundwater Pumping, Alternative 1 Compared to No Action Alternative

Table I.1-22 through Table I.1-42 provide the annual simulated groundwater pumping through the model simulation period for each of the 21 model subregions for Alternative 1 compared to the No Action Alternative.

Table I.1-22. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 1 (SR1) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	55	0.1%
2	W, W	-78	-0.1%
3	C, C	-155	-0.3%
4	C, C	1,806	2.4%
5	AN, W	1,498	2.5%
6	BN, AN	-775	-1.3%
7	AN, W	-104	-0.2%
8	D, D	-608	-1.0%
9	W, W	60	0.1%
10	W, W	54	0.1%
11	W, AN	62	0.1%
12	D, D	172	0.3%
13	W, W	-77	-0.1%
14	D, D	-956	-1.3%
15	C, C	-2,652	-3.5%
16	D, C	-1,422	-2.0%
17	C, C	-924	-1.3%
18	C, C	-293	-0.4%
19	C, C	606	0.7%
20	AN, W	355	0.6%
21	C, C	-47	-0.1%
22	W, W	17	0.0%
23	W, W	-22	0.0%
24	W, W	-136	-0.2%
25	W, W	47	0.1%
26	W, AN	-89	-0.1%
27	AN, AN	-86	-0.1%
28	D, D	-380	-0.6%
29	D, D	120	0.2%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
30	AN, BN	78	0.1%
31	BN, D	49	0.1%
32	AN, W	-68	-0.1%
33	W, W	-14	0.0%
34	D, C	214	0.3%
35	C, C	-1,566	-2.2%
36	D, BN	-1,806	-2.6%
37	BN, AN	-347	-0.6%
38	W, W	-69	-0.1%
39	BN, D	23	0.0%
40	D, C	-339	-0.5%
41	C, C	-58	-0.1%
42	C, C	-190	-0.2%
<b>Average</b>		<b>-192</b>	<b>-0.3%</b>
<b>Maximum</b>		<b>1,806</b>	<b>2.5%</b>
<b>Minimum</b>		<b>-2,652</b>	<b>-3.5%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-23. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 2 (SR2) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	4	0.0%
2	W, W	-5	0.0%
3	C, C	-193	0.0%
4	C, C	-703	-0.1%
5	AN, W	4,709	0.9%
6	BN, AN	-6,595	-1.2%
7	AN, W	-1,438	-0.3%
8	D, D	-1,244	-0.2%
9	W, W	-190	0.0%
10	W, W	-9	0.0%
11	W, AN	-5	0.0%
12	D, D	148	0.0%
13	W, W	-302	-0.1%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
14	D, D	-3,481	-0.6%
15	C, C	-6,516	-1.1%
16	D, C	-8,079	-1.4%
17	C, C	-4,510	-0.9%
18	C, C	-1,058	-0.2%
19	C, C	212	0.0%
20	AN, W	70	0.0%
21	C, C	-868	-0.2%
22	W, W	-230	0.0%
23	W, W	-14	0.0%
24	W, W	-4	0.0%
25	W, W	-9	0.0%
26	W, AN	0	0.0%
27	AN, AN	-1	0.0%
28	D, D	-3,511	-0.7%
29	D, D	-452	-0.1%
30	AN, BN	132	0.0%
31	BN, D	-861	-0.2%
32	AN, W	-102	0.0%
33	W, W	5	0.0%
34	D, C	380	0.1%
35	C, C	-2,199	-0.4%
36	D, BN	-3,837	-0.7%
37	BN, AN	-520	-0.1%
38	W, W	4	0.0%
39	BN, D	-102	0.0%
40	D, C	-3,416	-0.5%
41	C, C	-860	-0.1%
42	C, C	3,744	0.6%
<b>Average</b>		<b>-998</b>	<b>-0.2%</b>
<b>Maximum</b>		<b>4,709</b>	<b>0.9%</b>
<b>Minimum</b>		<b>-8,079</b>	<b>-1.4%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-24. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 3 (SR3) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	0	0.0%
3	C, C	-971	-0.2%
4	C, C	8,890	1.5%
5	AN, W	2,372	0.7%
6	BN, AN	-35,538	-9.4%
7	AN, W	-6,819	-2.2%
8	D, D	-5,839	-1.6%
9	W, W	-1,198	-0.5%
10	W, W	0	0.0%
11	W, AN	-7	0.0%
12	D, D	765	0.2%
13	W, W	-4,223	-1.2%
14	D, D	-18,626	-4.4%
15	C, C	-32,795	-7.3%
16	D, C	-40,023	-9.9%
17	C, C	-19,801	-4.2%
18	C, C	-3,236	-0.6%
19	C, C	2,796	0.5%
20	AN, W	992	0.3%
21	C, C	-4,992	-1.2%
22	W, W	-1,066	-0.3%
23	W, W	-66	0.0%
24	W, W	-55	0.0%
25	W, W	-3	0.0%
26	W, AN	13	0.0%
27	AN, AN	0	0.0%
28	D, D	-19,054	-5.2%
29	D, D	-6,813	-1.9%
30	AN, BN	-266	-0.1%
31	BN, D	-12,820	-3.7%
32	AN, W	-1,997	-0.7%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
33	W, W	-44	0.0%
34	D, C	4,888	1.4%
35	C, C	-12,225	-3.0%
36	D, BN	-19,875	-4.4%
37	BN, AN	-2,490	-0.9%
38	W, W	-225	-0.1%
39	BN, D	-967	-0.3%
40	D, C	-17,648	-4.3%
41	C, C	-3,764	-0.6%
42	C, C	1,154	0.2%
<b>Average</b>		<b>-5,990</b>	<b>-1.5%</b>
<b>Maximum</b>		<b>8,890</b>	<b>1.5%</b>
<b>Minimum</b>		<b>-40,023</b>	<b>-9.9%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-25. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 4 (SR4) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	-7,897	-2.3%
3	C, C	1,041	0.3%
4	C, C	3,254	0.9%
5	AN, W	62	0.0%
6	BN, AN	1,209	0.4%
7	AN, W	-7,284	-2.3%
8	D, D	-38	0.0%
9	W, W	8,642	2.9%
10	W, W	0	0.0%
11	W, AN	10	0.0%
12	D, D	1	0.0%
13	W, W	-11	0.0%
14	D, D	-1,928	-0.5%
15	C, C	719	0.2%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
16	D, C	39	0.0%
17	C, C	84	0.0%
18	C, C	1,869	0.6%
19	C, C	-287	-0.1%
20	AN, W	-2,407	-0.7%
21	C, C	-1,069	-0.3%
22	W, W	-2	0.0%
23	W, W	-1,353	-0.4%
24	W, W	0	0.0%
25	W, W	0	0.0%
26	W, AN	-12	0.0%
27	AN, AN	2,510	0.8%
28	D, D	-14	0.0%
29	D, D	-5	0.0%
30	AN, BN	1,486	0.5%
31	BN, D	1,379	0.4%
32	AN, W	-12	0.0%
33	W, W	-2,520	-0.8%
34	D, C	13	0.0%
35	C, C	-19	0.0%
36	D, BN	-40	0.0%
37	BN, AN	-24	0.0%
38	W, W	1,106	0.3%
39	BN, D	25	0.0%
40	D, C	-49	0.0%
41	C, C	-16	0.0%
42	C, C	2,451	0.7%
<b>Average</b>		<b>22</b>	<b>0.0%</b>
<b>Maximum</b>		<b>8,642</b>	<b>2.9%</b>
<b>Minimum</b>		<b>-7,897</b>	<b>-2.3%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-26. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 5 (SR5) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	30	0.0%
2	W, W	83	0.0%
3	C, C	-218	0.0%
4	C, C	456	0.1%
5	AN, W	2,201	0.5%
6	BN, AN	-2,538	-0.6%
7	AN, W	-293	-0.1%
8	D, D	-1,027	-0.2%
9	W, W	-173	0.0%
10	W, W	75	0.0%
11	W, AN	-64	0.0%
12	D, D	216	0.0%
13	W, W	-583	-0.1%
14	D, D	-1,430	-0.3%
15	C, C	-2,732	-0.6%
16	D, C	-13,847	-3.0%
17	C, C	-1,047	-0.3%
18	C, C	-1,126	-0.2%
19	C, C	6,256	1.2%
20	AN, W	2,008	0.5%
21	C, C	-344	-0.1%
22	W, W	-36	0.0%
23	W, W	4	0.0%
24	W, W	232	0.1%
25	W, W	109	0.0%
26	W, AN	-34	0.0%
27	AN, AN	106	0.0%
28	D, D	-1,358	-0.3%
29	D, D	-693	-0.1%
30	AN, BN	-174	0.0%
31	BN, D	17	0.0%
32	AN, W	161	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
33	W, W	-42	0.0%
34	D, C	213	0.0%
35	C, C	-890	-0.2%
36	D, BN	-2,567	-0.5%
37	BN, AN	-444	-0.1%
38	W, W	-147	0.0%
39	BN, D	269	0.1%
40	D, C	-1,177	-0.2%
41	C, C	-1,274	-0.2%
42	C, C	28	0.0%
<b>Average</b>		<b>-519</b>	<b>-0.1%</b>
<b>Maximum</b>		<b>6,256</b>	<b>1.2%</b>
<b>Minimum</b>		<b>-13,847</b>	<b>-3.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-27. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 6 (SR6) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	-175	0.0%
2	W, W	798	0.1%
3	C, C	-394	0.0%
4	C, C	-711	-0.1%
5	AN, W	-71	0.0%
6	BN, AN	-748	-0.1%
7	AN, W	-195	0.0%
8	D, D	660	0.1%
9	W, W	767	0.1%
10	W, W	0	0.0%
11	W, AN	-2,776	-0.4%
12	D, D	-746	-0.1%
13	W, W	-279	0.0%
14	D, D	3,319	0.4%
15	C, C	-765	-0.1%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
16	D, C	-950	-0.1%
17	C, C	-3,048	-0.4%
18	C, C	-2,285	-0.3%
19	C, C	1,061	0.1%
20	AN, W	468	0.1%
21	C, C	-400	0.0%
22	W, W	21	0.0%
23	W, W	392	0.1%
24	W, W	-1,871	-0.3%
25	W, W	296	0.0%
26	W, AN	-754	-0.1%
27	AN, AN	-65	0.0%
28	D, D	5	0.0%
29	D, D	-473	-0.1%
30	AN, BN	4,139	0.6%
31	BN, D	686	0.1%
32	AN, W	-28	0.0%
33	W, W	666	0.1%
34	D, C	-885	-0.1%
35	C, C	-461	-0.1%
36	D, BN	-2,574	-0.3%
37	BN, AN	-532	-0.1%
38	W, W	597	0.1%
39	BN, D	-304	0.0%
40	D, C	-858	-0.1%
41	C, C	-1,973	-0.2%
42	C, C	1,395	0.2%
<b>Average</b>		<b>-215</b>	<b>0.0%</b>
<b>Maximum</b>		<b>4,139</b>	<b>0.6%</b>
<b>Minimum</b>		<b>-3,048</b>	<b>-0.4%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-28. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 7 (SR7) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	530	0.2%
2	W, W	339	0.1%
3	C, C	-22	0.0%
4	C, C	-82	0.0%
5	AN, W	13,666	3.6%
6	BN, AN	719	0.2%
7	AN, W	-2,455	-0.7%
8	D, D	25	0.0%
9	W, W	-435	-0.1%
10	W, W	-441	-0.1%
11	W, AN	731	0.2%
12	D, D	293	0.1%
13	W, W	1,045	0.3%
14	D, D	-399	-0.1%
15	C, C	-257	-0.1%
16	D, C	-101	0.0%
17	C, C	-925	-0.3%
18	C, C	2,062	0.5%
19	C, C	-237	-0.1%
20	AN, W	1,021	0.3%
21	C, C	-17	0.0%
22	W, W	-332	-0.1%
23	W, W	131	0.0%
24	W, W	-490	-0.1%
25	W, W	888	0.3%
26	W, AN	728	0.2%
27	AN, AN	-518	-0.1%
28	D, D	-96	0.0%
29	D, D	-184	0.0%
30	AN, BN	-27	0.0%
31	BN, D	-170	0.0%
32	AN, W	-2,733	-0.7%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
33	W, W	-1,113	-0.3%
34	D, C	-1,201	-0.3%
35	C, C	-438	-0.1%
36	D, BN	-140	0.0%
37	BN, AN	74	0.0%
38	W, W	-1,590	-0.4%
39	BN, D	114	0.0%
40	D, C	-243	-0.1%
41	C, C	-72	0.0%
42	C, C	593	0.1%
<b>Average</b>		<b>196</b>	<b>0.1%</b>
<b>Maximum</b>		<b>13,666</b>	<b>3.6%</b>
<b>Minimum</b>		<b>-2,733</b>	<b>-0.7%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-29. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 8 (SR8) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	932	0.1%
2	W, W	-573	-0.1%
3	C, C	2,800	0.2%
4	C, C	-92	0.0%
5	AN, W	-399	0.0%
6	BN, AN	0	0.0%
7	AN, W	61	0.0%
8	D, D	-27	0.0%
9	W, W	281	0.0%
10	W, W	-13	0.0%
11	W, AN	-42	0.0%
12	D, D	28	0.0%
13	W, W	-218	0.0%
14	D, D	-68	0.0%
15	C, C	279	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
16	D, C	10	0.0%
17	C, C	-397	0.0%
18	C, C	-303	0.0%
19	C, C	-468	0.0%
20	AN, W	-74	0.0%
21	C, C	-770	-0.1%
22	W, W	116	0.0%
23	W, W	-2,386	-0.3%
24	W, W	-1,666	-0.2%
25	W, W	-150	0.0%
26	W, AN	110	0.0%
27	AN, AN	232	0.0%
28	D, D	-228	0.0%
29	D, D	270	0.0%
30	AN, BN	137	0.0%
31	BN, D	267	0.0%
32	AN, W	46	0.0%
33	W, W	439	0.0%
34	D, C	333	0.0%
35	C, C	-109	0.0%
36	D, BN	174	0.0%
37	BN, AN	-55	0.0%
38	W, W	-185	0.0%
39	BN, D	1,079	0.1%
40	D, C	421	0.0%
41	C, C	-208	0.0%
42	C, C	117	0.0%
<b>Average</b>		<b>-7</b>	<b>0.0%</b>
<b>Maximum</b>		<b>2,800</b>	<b>0.2%</b>
<b>Minimum</b>		<b>-2,386</b>	<b>-0.3%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-30. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 9 (SR9) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	-1,183	-0.3%
2	W, W	-3,995	-0.8%
3	C, C	-1,046	-0.2%
4	C, C	-341	-0.1%
5	AN, W	-7,173	-1.4%
6	BN, AN	-3,757	-0.7%
7	AN, W	-648	-0.1%
8	D, D	-6,276	-1.1%
9	W, W	-1,105	-0.2%
10	W, W	-112	0.0%
11	W, AN	-1,001	-0.2%
12	D, D	-1,933	-0.3%
13	W, W	-965	-0.2%
14	D, D	-2,485	-0.5%
15	C, C	-2,654	-0.5%
16	D, C	-1,251	-0.2%
17	C, C	-3,270	-0.6%
18	C, C	-2,428	-0.5%
19	C, C	-4,229	-0.7%
20	AN, W	-5,127	-1.0%
21	C, C	-3,986	-0.7%
22	W, W	-1,122	-0.2%
23	W, W	-130	0.0%
24	W, W	-4,021	-0.8%
25	W, W	-79	0.0%
26	W, AN	-307	-0.1%
27	AN, AN	-5,131	-1.0%
28	D, D	-4,742	-0.9%
29	D, D	-2,435	-0.5%
30	AN, BN	-3,953	-0.8%
31	BN, D	-8,571	-1.6%
32	AN, W	-1,490	-0.3%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
33	W, W	-278	-0.1%
34	D, C	-1,584	-0.3%
35	C, C	-2,001	-0.4%
36	D, BN	-1,814	-0.3%
37	BN, AN	-965	-0.2%
38	W, W	-305	-0.1%
39	BN, D	-955	-0.2%
40	D, C	-720	-0.1%
41	C, C	-367	-0.1%
42	C, C	-1,005	-0.2%
<b>Average</b>		<b>-2,308</b>	<b>-0.4%</b>
<b>Maximum</b>		<b>-79</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-8,571</b>	<b>-1.6%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-31. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 10 (SR10) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	-17,541	-6.1%
2	W, W	-54,827	-14.8%
3	C, C	-21,104	-4.1%
4	C, C	-103,266	-12.7%
5	AN, W	-2,158	-0.6%
6	BN, AN	-45,130	-11.2%
7	AN, W	-12,326	-4.1%
8	D, D	-74,909	-16.9%
9	W, W	-17,776	-6.0%
10	W, W	-513	-0.2%
11	W, AN	-8,719	-2.8%
12	D, D	-23,824	-5.3%
13	W, W	-5,891	-1.9%
14	D, D	-30,450	-6.7%
15	C, C	-33,991	-6.5%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
16	D, C	-20,069	-3.7%
17	C, C	-39,639	-6.4%
18	C, C	-29,080	-3.8%
19	C, C	-23,378	-3.1%
20	AN, W	-45,432	-10.9%
21	C, C	-50,662	-9.2%
22	W, W	-9,653	-2.8%
23	W, W	-1,412	-0.4%
24	W, W	-37,807	-12.2%
25	W, W	-312	-0.1%
26	W, AN	-3,886	-1.4%
27	AN, AN	-64,060	-16.2%
28	D, D	-59,413	-12.8%
29	D, D	-28,793	-6.1%
30	AN, BN	-43,324	-10.1%
31	BN, D	-88,374	-18.8%
32	AN, W	-19,856	-6.5%
33	W, W	-6,085	-2.1%
34	D, C	-38,562	-9.2%
35	C, C	-22,332	-4.6%
36	D, BN	-20,324	-3.6%
37	BN, AN	-19,370	-4.5%
38	W, W	-5,274	-1.8%
39	BN, D	-26,825	-7.0%
40	D, C	-14,161	-3.1%
41	C, C	-74,969	-9.7%
42	C, C	-6,061	-0.8%
<b>Average</b>		<b>-29,798</b>	<b>-6.5%</b>
<b>Maximum</b>		<b>-312</b>	<b>-0.1%</b>
<b>Minimum</b>		<b>-103,266</b>	<b>-18.8%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-32. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 11 (SR11) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	-17	0.0%
2	W, W	-9	0.0%
3	C, C	-13,487	-3.2%
4	C, C	-5,465	-0.9%
5	AN, W	66	0.0%
6	BN, AN	-40	0.0%
7	AN, W	12,449	4.1%
8	D, D	-3,314	-0.9%
9	W, W	5	0.0%
10	W, W	14	0.0%
11	W, AN	-34	0.0%
12	D, D	-2	0.0%
13	W, W	-5	0.0%
14	D, D	-28	0.0%
15	C, C	410	0.1%
16	D, C	-27	0.0%
17	C, C	124	0.0%
18	C, C	111	0.0%
19	C, C	-324	-0.1%
20	AN, W	-6,541	-1.9%
21	C, C	1,350	0.3%
22	W, W	-1,044	-0.4%
23	W, W	993	0.3%
24	W, W	10,097	3.1%
25	W, W	7,599	3.1%
26	W, AN	-203	-0.1%
27	AN, AN	49	0.0%
28	D, D	156	0.0%
29	D, D	23	0.0%
30	AN, BN	97	0.0%
31	BN, D	-60	0.0%
32	AN, W	11	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
33	W, W	154	0.1%
34	D, C	1,988	0.5%
35	C, C	-387	-0.1%
36	D, BN	-132	0.0%
37	BN, AN	-97	0.0%
38	W, W	4,339	1.6%
39	BN, D	-214	-0.1%
40	D, C	69	0.0%
41	C, C	-417	-0.1%
42	C, C	-187	0.0%
<b>Average</b>		<b>192</b>	<b>0.1%</b>
<b>Maximum</b>		<b>12,449</b>	<b>4.1%</b>
<b>Minimum</b>		<b>-13,487</b>	<b>-3.2%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-33. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 12 (SR12) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	-24	0.0%
2	W, W	-90	0.0%
3	C, C	-68	0.0%
4	C, C	-117	0.0%
5	AN, W	106	0.0%
6	BN, AN	-38	0.0%
7	AN, W	-12	0.0%
8	D, D	-187	0.0%
9	W, W	-89	0.0%
10	W, W	-11	0.0%
11	W, AN	-181	0.0%
12	D, D	25	0.0%
13	W, W	14	0.0%
14	D, D	-71	0.0%
15	C, C	132	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
16	D, C	21	0.0%
17	C, C	-240	0.0%
18	C, C	-162	0.0%
19	C, C	-237	0.0%
20	AN, W	-19,306	-3.2%
21	C, C	4,382	0.6%
22	W, W	1,760	0.4%
23	W, W	-77	0.0%
24	W, W	5	0.0%
25	W, W	-73	0.0%
26	W, AN	-59	0.0%
27	AN, AN	-75	0.0%
28	D, D	-59	0.0%
29	D, D	-76	0.0%
30	AN, BN	29	0.0%
31	BN, D	-116	0.0%
32	AN, W	228	0.1%
33	W, W	0	0.0%
34	D, C	-76	0.0%
35	C, C	20	0.0%
36	D, BN	-101	0.0%
37	BN, AN	35	0.0%
38	W, W	43	0.0%
39	BN, D	-78	0.0%
40	D, C	-93	0.0%
41	C, C	-452	-0.1%
42	C, C	464	0.1%
<b>Average</b>		<b>-355</b>	<b>-0.1%</b>
<b>Maximum</b>		<b>4,382</b>	<b>0.6%</b>
<b>Minimum</b>		<b>-19,306</b>	<b>-3.2%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-34. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 13 (SR13) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	500	0.0%
2	W, W	-419	0.0%
3	C, C	-233	0.0%
4	C, C	-9,229	-0.4%
5	AN, W	-773	0.0%
6	BN, AN	203	0.0%
7	AN, W	-73	0.0%
8	D, D	-195	0.0%
9	W, W	-439	0.0%
10	W, W	36	0.0%
11	W, AN	-40	0.0%
12	D, D	-1,408	-0.1%
13	W, W	103	0.0%
14	D, D	-318	0.0%
15	C, C	-521	0.0%
16	D, C	-54	0.0%
17	C, C	-800	0.0%
18	C, C	-818	0.0%
19	C, C	263	0.0%
20	AN, W	321	0.0%
21	C, C	613	0.0%
22	W, W	19	0.0%
23	W, W	170	0.0%
24	W, W	-270	0.0%
25	W, W	-412	0.0%
26	W, AN	-219	0.0%
27	AN, AN	-154	0.0%
28	D, D	-287	0.0%
29	D, D	-745	0.0%
30	AN, BN	-804	0.0%
31	BN, D	2,237	0.1%
32	AN, W	-138	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
33	W, W	-3,853	-0.3%
34	D, C	122	0.0%
35	C, C	470	0.0%
36	D, BN	1,009	0.1%
37	BN, AN	1,114	0.1%
38	W, W	69	0.0%
39	BN, D	304	0.0%
40	D, C	-546	0.0%
41	C, C	-4,721	-0.2%
42	C, C	2,098	0.1%
<b>Average</b>		<b>-424</b>	<b>0.0%</b>
<b>Maximum</b>		<b>2,237</b>	<b>0.1%</b>
<b>Minimum</b>		<b>-9,229</b>	<b>-0.4%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-35. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 14 (SR14) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	-36,740	-16.9%
2	W, W	-127,576	-38.1%
3	C, C	-38,425	-5.9%
4	C, C	-1,623	-0.1%
5	AN, W	4,618	1.2%
6	BN, AN	-125,876	-26.3%
7	AN, W	-27,745	-11.3%
8	D, D	-180,406	-38.5%
9	W, W	-60,259	-20.5%
10	W, W	4	0.0%
11	W, AN	-6,807	-3.5%
12	D, D	-67,393	-13.5%
13	W, W	-12,752	-5.0%
14	D, D	-74,420	-14.7%
15	C, C	-97,513	-13.5%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
16	D, C	-52,939	-7.0%
17	C, C	-120,468	-11.1%
18	C, C	-56,097	-4.2%
19	C, C	-82,547	-6.3%
20	AN, W	-136,623	-22.3%
21	C, C	-159,242	-19.7%
22	W, W	-28,498	-8.2%
23	W, W	-43	0.0%
24	W, W	-43,169	-16.5%
25	W, W	-271	-0.1%
26	W, AN	-8,547	-3.6%
27	AN, AN	-189,875	-32.2%
28	D, D	-179,714	-23.6%
29	D, D	-89,659	-11.3%
30	AN, BN	-75,020	-11.6%
31	BN, D	-185,401	-25.8%
32	AN, W	-54,852	-15.8%
33	W, W	-4,620	-2.1%
34	D, C	-98,787	-16.5%
35	C, C	-67,882	-7.8%
36	D, BN	-65,034	-5.4%
37	BN, AN	-60,570	-7.5%
38	W, W	-12,328	-4.3%
39	BN, D	-64,076	-14.6%
40	D, C	-38,602	-5.0%
41	C, C	-4,464	-0.4%
42	C, C	-20,750	-1.5%
<b>Average</b>		<b>-65,547</b>	<b>-11.7%</b>
<b>Maximum</b>		<b>4,618</b>	<b>1.2%</b>
<b>Minimum</b>		<b>-189,875</b>	<b>-38.5%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-36. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 15 (SR15) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	-28,108	-2.1%
2	W, W	-35,518	-2.5%
3	C, C	-3,942	-0.2%
4	C, C	-11,466	-0.6%
5	AN, W	-5,339	-0.4%
6	BN, AN	-20,836	-1.6%
7	AN, W	-5,074	-0.4%
8	D, D	-30,962	-1.9%
9	W, W	-10,803	-0.9%
10	W, W	-114	0.0%
11	W, AN	-12,707	-0.9%
12	D, D	-19,633	-1.2%
13	W, W	-1,136	-0.1%
14	D, D	-29,663	-1.9%
15	C, C	-17,205	-1.0%
16	D, C	-15,057	-0.8%
17	C, C	-22,656	-1.2%
18	C, C	-8,960	-0.5%
19	C, C	-14,411	-0.8%
20	AN, W	-29,115	-2.3%
21	C, C	-28,429	-1.7%
22	W, W	-3,956	-0.4%
23	W, W	-27,454	-2.1%
24	W, W	-15,250	-1.1%
25	W, W	1,130	0.1%
26	W, AN	-26,374	-1.9%
27	AN, AN	-39,926	-2.8%
28	D, D	-37,789	-2.4%
29	D, D	-28,482	-1.7%
30	AN, BN	-39,004	-2.5%
31	BN, D	-51,741	-3.1%
32	AN, W	-60,259	-5.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
33	W, W	1,994	0.2%
34	D, C	-48,161	-2.8%
35	C, C	-31,066	-1.8%
36	D, BN	-20,174	-1.1%
37	BN, AN	-14,235	-0.9%
38	W, W	-15,299	-1.3%
39	BN, D	-19,680	-1.3%
40	D, C	-21,356	-1.1%
41	C, C	-4,262	-0.2%
42	C, C	-32,018	-1.6%
<b>Average</b>		<b>-21,059</b>	<b>-1.4%</b>
<b>Maximum</b>		<b>1,994</b>	<b>0.2%</b>
<b>Minimum</b>		<b>-60,259</b>	<b>-5.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-37. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 16 (SR16) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	26	0.0%
2	W, W	0	0.0%
3	C, C	50	0.0%
4	C, C	73	0.0%
5	AN, W	-48	0.0%
6	BN, AN	0	0.0%
7	AN, W	1	0.0%
8	D, D	10	0.0%
9	W, W	-41	0.0%
10	W, W	0	0.0%
11	W, AN	-76	-0.1%
12	D, D	68	0.1%
13	W, W	62	0.1%
14	D, D	51	0.0%
15	C, C	138	0.1%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
16	D, C	-40	0.0%
17	C, C	-76	0.0%
18	C, C	114	0.1%
19	C, C	58	0.0%
20	AN, W	-23	0.0%
21	C, C	-19	0.0%
22	W, W	12	0.0%
23	W, W	26	0.0%
24	W, W	-22	0.0%
25	W, W	0	0.0%
26	W, AN	-7	0.0%
27	AN, AN	-10	0.0%
28	D, D	23	0.0%
29	D, D	-64	0.0%
30	AN, BN	117	0.1%
31	BN, D	-23	0.0%
32	AN, W	0	0.0%
33	W, W	39	0.1%
34	D, C	-165	-0.1%
35	C, C	20	0.0%
36	D, BN	58	0.0%
37	BN, AN	-81	-0.1%
38	W, W	16	0.0%
39	BN, D	-85	0.0%
40	D, C	91	0.0%
41	C, C	-5	0.0%
42	C, C	-59	0.0%
<b>Average</b>		<b>5</b>	<b>0.0%</b>
<b>Maximum</b>		<b>138</b>	<b>0.1%</b>
<b>Minimum</b>		<b>-165</b>	<b>-0.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-38. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 17 (SR17) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	-14	0.0%
2	W, W	-13	0.0%
3	C, C	-10	0.0%
4	C, C	51	0.0%
5	AN, W	-94	0.0%
6	BN, AN	12	0.0%
7	AN, W	-45	0.0%
8	D, D	-46	0.0%
9	W, W	-20	0.0%
10	W, W	7	0.0%
11	W, AN	-17	0.0%
12	D, D	-37	0.0%
13	W, W	-209	-0.1%
14	D, D	97	0.0%
15	C, C	-305	-0.1%
16	D, C	13	0.0%
17	C, C	47	0.0%
18	C, C	-15	0.0%
19	C, C	12	0.0%
20	AN, W	6	0.0%
21	C, C	-15	0.0%
22	W, W	9	0.0%
23	W, W	-60	0.0%
24	W, W	59	0.0%
25	W, W	13	0.0%
26	W, AN	45	0.0%
27	AN, AN	-6	0.0%
28	D, D	-56	0.0%
29	D, D	-4	0.0%
30	AN, BN	-110	0.0%
31	BN, D	89	0.0%
32	AN, W	23	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
33	W, W	-74	0.0%
34	D, C	-260	0.0%
35	C, C	63	0.0%
36	D, BN	44	0.0%
37	BN, AN	115	0.0%
38	W, W	-1	0.0%
39	BN, D	96	0.0%
40	D, C	-63	0.0%
41	C, C	-66	0.0%
42	C, C	48	0.0%
<b>Average</b>		<b>-16</b>	<b>0.0%</b>
<b>Maximum</b>		<b>115</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-305</b>	<b>-0.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-39. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 18 (SR18) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	-687	-0.1%
2	W, W	-1,432	-0.1%
3	C, C	-1,982	-0.1%
4	C, C	-23	0.0%
5	AN, W	-112	0.0%
6	BN, AN	-673	-0.1%
7	AN, W	-473	-0.1%
8	D, D	-1,628	-0.1%
9	W, W	-603	-0.1%
10	W, W	-80	0.0%
11	W, AN	-499	0.0%
12	D, D	-492	0.0%
13	W, W	-334	0.0%
14	D, D	-1,254	-0.1%
15	C, C	-1,998	-0.1%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
16	D, C	-1,905	-0.1%
17	C, C	-2,766	-0.2%
18	C, C	-1,962	-0.1%
19	C, C	-1,018	-0.1%
20	AN, W	-280	0.0%
21	C, C	-2,138	-0.1%
22	W, W	-484	-0.1%
23	W, W	-642	-0.1%
24	W, W	-526	0.0%
25	W, W	-761	-0.1%
26	W, AN	-523	0.0%
27	AN, AN	-644	-0.1%
28	D, D	-1,545	-0.1%
29	D, D	-1,522	-0.1%
30	AN, BN	-5,393	-0.4%
31	BN, D	990	0.1%
32	AN, W	-996	-0.1%
33	W, W	-708	-0.1%
34	D, C	-2,029	-0.1%
35	C, C	-1,635	-0.1%
36	D, BN	-1,286	-0.1%
37	BN, AN	-870	-0.1%
38	W, W	-1,324	-0.2%
39	BN, D	-1,776	-0.1%
40	D, C	-1,351	-0.1%
41	C, C	-1,582	-0.1%
42	C, C	-177	0.0%
<b>Average</b>		<b>-1,122</b>	<b>-0.1%</b>
<b>Maximum</b>		<b>990</b>	<b>0.1%</b>
<b>Minimum</b>		<b>-5,393</b>	<b>-0.4%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-40. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 19 (SR19) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	-1	0.0%
3	C, C	0	0.0%
4	C, C	0	0.0%
5	AN, W	0	0.0%
6	BN, AN	-1	0.0%
7	AN, W	-22	0.0%
8	D, D	0	0.0%
9	W, W	0	0.0%
10	W, W	0	0.0%
11	W, AN	74	0.0%
12	D, D	20	0.0%
13	W, W	-15	0.0%
14	D, D	43	0.0%
15	C, C	97	0.0%
16	D, C	-287	-0.1%
17	C, C	-36	0.0%
18	C, C	37	0.0%
19	C, C	0	0.0%
20	AN, W	0	0.0%
21	C, C	0	0.0%
22	W, W	0	0.0%
23	W, W	-26	0.0%
24	W, W	189	0.1%
25	W, W	2	0.0%
26	W, AN	0	0.0%
27	AN, AN	-27	0.0%
28	D, D	26	0.0%
29	D, D	10	0.0%
30	AN, BN	-14	0.0%
31	BN, D	18	0.0%
32	AN, W	0	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
33	W, W	-16	0.0%
34	D, C	3	0.0%
35	C, C	0	0.0%
36	D, BN	-9	0.0%
37	BN, AN	0	0.0%
38	W, W	-64	0.0%
39	BN, D	0	0.0%
40	D, C	-20	0.0%
41	C, C	0	0.0%
42	C, C	0	0.0%
<b>Average</b>		<b>0</b>	<b>0.0%</b>
<b>Maximum</b>		<b>189</b>	<b>0.1%</b>
<b>Minimum</b>		<b>-287</b>	<b>-0.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-41. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 20 (SR20) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	0	0.0%
3	C, C	-4	0.0%
4	C, C	0	0.0%
5	AN, W	0	0.0%
6	BN, AN	4	0.0%
7	AN, W	5	0.0%
8	D, D	-29	0.0%
9	W, W	0	0.0%
10	W, W	0	0.0%
11	W, AN	1	0.0%
12	D, D	-38	0.0%
13	W, W	0	0.0%
14	D, D	-4	0.0%
15	C, C	-25	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
16	D, C	72	0.0%
17	C, C	33	0.0%
18	C, C	-6	0.0%
19	C, C	112	0.0%
20	AN, W	-19	0.0%
21	C, C	-57	0.0%
22	W, W	-11	0.0%
23	W, W	19	0.0%
24	W, W	46	0.0%
25	W, W	-17	0.0%
26	W, AN	0	0.0%
27	AN, AN	1	0.0%
28	D, D	-2	0.0%
29	D, D	-2	0.0%
30	AN, BN	-5	0.0%
31	BN, D	-23	0.0%
32	AN, W	204	0.0%
33	W, W	-121	0.0%
34	D, C	20	0.0%
35	C, C	66	0.0%
36	D, BN	82	0.0%
37	BN, AN	26	0.0%
38	W, W	6	0.0%
39	BN, D	-79	0.0%
40	D, C	143	0.0%
41	C, C	-9	0.0%
42	C, C	4	0.0%
<b>Average</b>		<b>9</b>	<b>0.0%</b>
<b>Maximum</b>		<b>204</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-121</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-42. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 21 (SR21) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	1	0.0%
2	W, W	0	0.0%
3	C, C	-46	0.0%
4	C, C	35	0.0%
5	AN, W	-21	0.0%
6	BN, AN	-38	0.0%
7	AN, W	-37	0.0%
8	D, D	36	0.0%
9	W, W	29	0.0%
10	W, W	0	0.0%
11	W, AN	-32	0.0%
12	D, D	-63	0.0%
13	W, W	-104	0.0%
14	D, D	41	0.0%
15	C, C	110	0.0%
16	D, C	-1	0.0%
17	C, C	-17	0.0%
18	C, C	3	0.0%
19	C, C	-106	0.0%
20	AN, W	-8	0.0%
21	C, C	-20	0.0%
22	W, W	-125	0.0%
23	W, W	14	0.0%
24	W, W	52	0.0%
25	W, W	-94	0.0%
26	W, AN	-92	0.0%
27	AN, AN	70	0.0%
28	D, D	-18	0.0%
29	D, D	11	0.0%
30	AN, BN	17	0.0%
31	BN, D	-124	0.0%
32	AN, W	68	0.0%
33	W, W	-1	0.0%
34	D, C	-129	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
35	C, C	91	0.0%
36	D, BN	31	0.0%
37	BN, AN	92	0.0%
38	W, W	129	0.0%
39	BN, D	-102	0.0%
40	D, C	-13	0.0%
41	C, C	17	0.0%
42	C, C	2	0.0%
<b>Average</b>		<b>-8</b>	<b>0.0%</b>
<b>Maximum</b>		<b>129</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-129</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

### I-1.1.3 Changes in Groundwater Pumping, Alternative 2 with TUCP Without VA Compared to No Action Alternative

Table I.1-43 through Table I.1-63 provide the annual simulated groundwater pumping through the model simulation period for each of the 21 model subregions for Alternative 2 with TUCP without VA compared to the No Action Alternative.

Table I.1-43. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 1 (SR1) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	-110	-0.2%
2	W, W	59	0.1%
3	C, C	969	1.6%
4	C, C	6,524	8.5%
5	AN, W	195	0.3%
6	BN, AN	-144	-0.2%
7	AN, W	-12	0.0%
8	D, D	-164	-0.3%
9	W, W	-47	-0.1%
10	W, W	157	0.3%
11	W, AN	-42	-0.1%
12	D, D	251	0.4%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
13	W, W	11	0.0%
14	D, D	2,002	2.8%
15	C, C	3,839	5.1%
16	D, C	960	1.4%
17	C, C	-3,249	-4.6%
18	C, C	4,384	5.3%
19	C, C	2,207	2.5%
20	AN, W	316	0.5%
21	C, C	4,033	5.7%
22	W, W	1,238	2.0%
23	W, W	-56	-0.1%
24	W, W	-18	0.0%
25	W, W	-115	-0.2%
26	W, AN	0	0.0%
27	AN, AN	-67	-0.1%
28	D, D	763	1.2%
29	D, D	224	0.3%
30	AN, BN	-14	0.0%
31	BN, D	37	0.1%
32	AN, W	-62	-0.1%
33	W, W	7	0.0%
34	D, C	-13	0.0%
35	C, C	2,839	4.1%
36	D, BN	438	0.6%
37	BN, AN	-58	-0.1%
38	W, W	12	0.0%
39	BN, D	13	0.0%
40	D, C	3,528	5.1%
41	C, C	7,655	8.9%
42	C, C	-1,287	-1.4%
<b>Average</b>		<b>886</b>	<b>1.2%</b>
<b>Maximum</b>		<b>7,655</b>	<b>8.9%</b>
<b>Minimum</b>		<b>-3,249</b>	<b>-4.6%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-44. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 2 (SR2) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	6	0.0%
2	W, W	102	0.0%
3	C, C	2,928	0.5%
4	C, C	4,651	0.7%
5	AN, W	616	0.1%
6	BN, AN	101	0.0%
7	AN, W	22	0.0%
8	D, D	-1,346	-0.2%
9	W, W	-170	0.0%
10	W, W	-6	0.0%
11	W, AN	6	0.0%
12	D, D	765	0.1%
13	W, W	648	0.1%
14	D, D	4,620	0.8%
15	C, C	10,806	1.8%
16	D, C	4,496	0.8%
17	C, C	-2,970	-0.6%
18	C, C	4,268	0.7%
19	C, C	1,054	0.2%
20	AN, W	50	0.0%
21	C, C	10,801	1.9%
22	W, W	2,936	0.6%
23	W, W	11	0.0%
24	W, W	1	0.0%
25	W, W	1	0.0%
26	W, AN	36	0.0%
27	AN, AN	8	0.0%
28	D, D	1,767	0.3%
29	D, D	16	0.0%
30	AN, BN	-39	0.0%
31	BN, D	-766	-0.1%
32	AN, W	-28	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
33	W, W	3	0.0%
34	D, C	218	0.0%
35	C, C	6,553	1.1%
36	D, BN	945	0.2%
37	BN, AN	-32	0.0%
38	W, W	0	0.0%
39	BN, D	-3	0.0%
40	D, C	7,438	1.2%
41	C, C	5,938	0.9%
42	C, C	-288	0.0%
<b>Average</b>		<b>1,575</b>	<b>0.3%</b>
<b>Maximum</b>		<b>10,806</b>	<b>1.9%</b>
<b>Minimum</b>		<b>-2,970</b>	<b>-0.6%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-45. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 3 (SR3) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	1,240	0.4%
3	C, C	16,140	3.6%
4	C, C	74,454	12.9%
5	AN, W	4,970	1.4%
6	BN, AN	1,001	0.3%
7	AN, W	137	0.0%
8	D, D	-7,212	-2.0%
9	W, W	-787	-0.3%
10	W, W	94	0.0%
11	W, AN	279	0.1%
12	D, D	4,548	1.2%
13	W, W	8,302	2.5%
14	D, D	25,527	6.1%
15	C, C	55,613	12.4%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
16	D, C	20,304	5.0%
17	C, C	-32,828	-6.9%
18	C, C	79,991	15.0%
19	C, C	8,497	1.4%
20	AN, W	1,062	0.3%
21	C, C	60,699	15.2%
22	W, W	12,654	4.0%
23	W, W	145	0.0%
24	W, W	120	0.0%
25	W, W	43	0.0%
26	W, AN	604	0.2%
27	AN, AN	407	0.1%
28	D, D	9,276	2.5%
29	D, D	-5,746	-1.6%
30	AN, BN	-346	-0.1%
31	BN, D	-10,240	-3.0%
32	AN, W	-312	-0.1%
33	W, W	0	0.0%
34	D, C	3,160	0.9%
35	C, C	35,889	8.7%
36	D, BN	4,474	1.0%
37	BN, AN	671	0.2%
38	W, W	12	0.0%
39	BN, D	-14	0.0%
40	D, C	38,153	9.3%
41	C, C	86,384	14.9%
42	C, C	1,442	0.2%
<b>Average</b>		<b>11,876</b>	<b>2.5%</b>
<b>Maximum</b>		<b>86,384</b>	<b>15.2%</b>
<b>Minimum</b>		<b>-32,828</b>	<b>-6.9%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-46. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 4 (SR4) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	-48	0.0%
3	C, C	75	0.0%
4	C, C	34,145	9.1%
5	AN, W	1,200	0.3%
6	BN, AN	1,005	0.3%
7	AN, W	-7,122	-2.2%
8	D, D	-318	-0.1%
9	W, W	10,923	3.6%
10	W, W	0	0.0%
11	W, AN	10	0.0%
12	D, D	6	0.0%
13	W, W	7	0.0%
14	D, D	48	0.0%
15	C, C	1,082	0.3%
16	D, C	419	0.1%
17	C, C	-14,412	-4.5%
18	C, C	31,376	9.5%
19	C, C	2,026	0.6%
20	AN, W	1,196	0.4%
21	C, C	821	0.2%
22	W, W	23	0.0%
23	W, W	3	0.0%
24	W, W	0	0.0%
25	W, W	0	0.0%
26	W, AN	2	0.0%
27	AN, AN	2,513	0.8%
28	D, D	38	0.0%
29	D, D	5	0.0%
30	AN, BN	16	0.0%
31	BN, D	-490	-0.1%
32	AN, W	7	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
33	W, W	0	0.0%
34	D, C	6	0.0%
35	C, C	40	0.0%
36	D, BN	-1,061	-0.3%
37	BN, AN	29	0.0%
38	W, W	-442	-0.1%
39	BN, D	15	0.0%
40	D, C	89	0.0%
41	C, C	37,847	9.9%
42	C, C	1,247	0.3%
<b>Average</b>		<b>2,436</b>	<b>0.7%</b>
<b>Maximum</b>		<b>37,847</b>	<b>9.9%</b>
<b>Minimum</b>		<b>-14,412</b>	<b>-4.5%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-47. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 5 (SR5) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	-291	-0.1%
2	W, W	35	0.0%
3	C, C	882	0.2%
4	C, C	2,714	0.5%
5	AN, W	1,474	0.3%
6	BN, AN	65	0.0%
7	AN, W	21	0.0%
8	D, D	-605	-0.1%
9	W, W	103	0.0%
10	W, W	-58	0.0%
11	W, AN	152	0.0%
12	D, D	-187	0.0%
13	W, W	97	0.0%
14	D, D	1,994	0.4%
15	C, C	4,273	0.9%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
16	D, C	-2,126	-0.5%
17	C, C	590	0.1%
18	C, C	-515	-0.1%
19	C, C	-313	-0.1%
20	AN, W	2,007	0.5%
21	C, C	4,776	1.0%
22	W, W	954	0.2%
23	W, W	79	0.0%
24	W, W	8	0.0%
25	W, W	37	0.0%
26	W, AN	38	0.0%
27	AN, AN	283	0.1%
28	D, D	706	0.1%
29	D, D	295	0.1%
30	AN, BN	-175	0.0%
31	BN, D	141	0.0%
32	AN, W	84	0.0%
33	W, W	-19	0.0%
34	D, C	76	0.0%
35	C, C	2,698	0.6%
36	D, BN	176	0.0%
37	BN, AN	-9	0.0%
38	W, W	-195	-0.1%
39	BN, D	-128	0.0%
40	D, C	2,902	0.6%
41	C, C	938	0.2%
42	C, C	-430	-0.1%
<b>Average</b>		<b>561</b>	<b>0.1%</b>
<b>Maximum</b>		<b>4,776</b>	<b>1.0%</b>
<b>Minimum</b>		<b>-2,126</b>	<b>-0.5%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-48. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 6 (SR6) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	-183	0.0%
2	W, W	1,283	0.2%
3	C, C	602	0.1%
4	C, C	-702	-0.1%
5	AN, W	109	0.0%
6	BN, AN	280	0.0%
7	AN, W	-316	0.0%
8	D, D	587	0.1%
9	W, W	807	0.1%
10	W, W	-275	0.0%
11	W, AN	275	0.0%
12	D, D	1,351	0.2%
13	W, W	403	0.1%
14	D, D	-983	-0.1%
15	C, C	1,865	0.3%
16	D, C	-174	0.0%
17	C, C	-4,174	-0.5%
18	C, C	-2,457	-0.3%
19	C, C	850	0.1%
20	AN, W	732	0.1%
21	C, C	1,884	0.2%
22	W, W	51	0.0%
23	W, W	339	0.1%
24	W, W	-80	0.0%
25	W, W	-30	0.0%
26	W, AN	141	0.0%
27	AN, AN	325	0.0%
28	D, D	796	0.1%
29	D, D	274	0.0%
30	AN, BN	1,707	0.3%
31	BN, D	1,245	0.2%
32	AN, W	-390	-0.1%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
33	W, W	437	0.1%
34	D, C	81	0.0%
35	C, C	1,934	0.3%
36	D, BN	1,381	0.2%
37	BN, AN	-1,195	-0.2%
38	W, W	687	0.1%
39	BN, D	-17	0.0%
40	D, C	1,251	0.2%
41	C, C	-2,055	-0.2%
42	C, C	1,235	0.1%
<b>Average</b>		<b>235</b>	<b>0.0%</b>
<b>Maximum</b>		<b>1,934</b>	<b>0.3%</b>
<b>Minimum</b>		<b>-4,174</b>	<b>-0.5%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-49. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 7 (SR7) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	663	0.2%
2	W, W	699	0.2%
3	C, C	493	0.1%
4	C, C	-12,652	-3.0%
5	AN, W	-1,748	-0.5%
6	BN, AN	993	0.3%
7	AN, W	-228	-0.1%
8	D, D	-390	-0.1%
9	W, W	-263	-0.1%
10	W, W	-418	-0.1%
11	W, AN	-24	0.0%
12	D, D	146	0.0%
13	W, W	618	0.2%
14	D, D	-668	-0.2%
15	C, C	-65	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
16	D, C	-142	0.0%
17	C, C	-6,490	-1.8%
18	C, C	-9,967	-2.6%
19	C, C	-2,276	-0.6%
20	AN, W	384	0.1%
21	C, C	-40	0.0%
22	W, W	-1,419	-0.4%
23	W, W	180	0.0%
24	W, W	-385	-0.1%
25	W, W	2,271	0.7%
26	W, AN	699	0.2%
27	AN, AN	44	0.0%
28	D, D	-675	-0.2%
29	D, D	-731	-0.2%
30	AN, BN	-155	0.0%
31	BN, D	562	0.1%
32	AN, W	-570	-0.2%
33	W, W	781	0.2%
34	D, C	-463	-0.1%
35	C, C	-509	-0.1%
36	D, BN	-484	-0.1%
37	BN, AN	1,048	0.3%
38	W, W	-650	-0.2%
39	BN, D	-86	0.0%
40	D, C	215	0.1%
41	C, C	-13,711	-3.3%
42	C, C	-1,406	-0.3%
<b>Average</b>		<b>-1,115</b>	<b>-0.3%</b>
<b>Maximum</b>		<b>2,271</b>	<b>0.7%</b>
<b>Minimum</b>		<b>-13,711</b>	<b>-3.3%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-50. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 8 (SR8) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	-107	0.0%
2	W, W	-219	0.0%
3	C, C	-358	0.0%
4	C, C	-965	-0.1%
5	AN, W	-120	0.0%
6	BN, AN	96	0.0%
7	AN, W	338	0.0%
8	D, D	-267	0.0%
9	W, W	530	0.1%
10	W, W	-289	0.0%
11	W, AN	359	0.0%
12	D, D	-79	0.0%
13	W, W	-214	0.0%
14	D, D	169	0.0%
15	C, C	425	0.0%
16	D, C	364	0.0%
17	C, C	40	0.0%
18	C, C	-5	0.0%
19	C, C	100	0.0%
20	AN, W	-6	0.0%
21	C, C	-845	-0.1%
22	W, W	48	0.0%
23	W, W	69	0.0%
24	W, W	-1,218	-0.1%
25	W, W	202	0.0%
26	W, AN	27	0.0%
27	AN, AN	50	0.0%
28	D, D	-197	0.0%
29	D, D	500	0.1%
30	AN, BN	412	0.0%
31	BN, D	-139	0.0%
32	AN, W	-292	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
33	W, W	-657	-0.1%
34	D, C	486	0.0%
35	C, C	-114	0.0%
36	D, BN	8	0.0%
37	BN, AN	120	0.0%
38	W, W	100	0.0%
39	BN, D	492	0.0%
40	D, C	119	0.0%
41	C, C	200	0.0%
42	C, C	367	0.0%
<b>Average</b>		<b>-11</b>	<b>0.0%</b>
<b>Maximum</b>		<b>530</b>	<b>0.1%</b>
<b>Minimum</b>		<b>-1,218</b>	<b>-0.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-51. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 9 (SR9) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	138	0.0%
2	W, W	-262	-0.1%
3	C, C	870	0.2%
4	C, C	578	0.1%
5	AN, W	20	0.0%
6	BN, AN	-503	-0.1%
7	AN, W	-469	-0.1%
8	D, D	984	0.2%
9	W, W	458	0.1%
10	W, W	-199	0.0%
11	W, AN	-748	-0.1%
12	D, D	1,209	0.2%
13	W, W	380	0.1%
14	D, D	1,405	0.3%
15	C, C	2,415	0.4%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
16	D, C	1,079	0.2%
17	C, C	-88	0.0%
18	C, C	-160	0.0%
19	C, C	-2,566	-0.5%
20	AN, W	-3,144	-0.6%
21	C, C	1,491	0.3%
22	W, W	606	0.1%
23	W, W	269	0.1%
24	W, W	-2,652	-0.5%
25	W, W	-94	0.0%
26	W, AN	-287	-0.1%
27	AN, AN	54	0.0%
28	D, D	1,295	0.2%
29	D, D	1,240	0.2%
30	AN, BN	-1,860	-0.4%
31	BN, D	-2,106	-0.4%
32	AN, W	-259	-0.1%
33	W, W	-479	-0.1%
34	D, C	478	0.1%
35	C, C	1,352	0.3%
36	D, BN	1,449	0.3%
37	BN, AN	832	0.2%
38	W, W	-26	0.0%
39	BN, D	-557	-0.1%
40	D, C	1,422	0.2%
41	C, C	398	0.1%
42	C, C	-90	0.0%
<b>Average</b>		<b>92</b>	<b>0.0%</b>
<b>Maximum</b>		<b>2,415</b>	<b>0.4%</b>
<b>Minimum</b>		<b>-3,144</b>	<b>-0.6%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-52. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 10 (SR10) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	-2,201	-0.8%
2	W, W	-1,680	-0.5%
3	C, C	11,148	2.2%
4	C, C	-28,619	-3.5%
5	AN, W	-1,062	-0.3%
6	BN, AN	-5,069	-1.3%
7	AN, W	-3,621	-1.2%
8	D, D	13,651	3.1%
9	W, W	3,758	1.3%
10	W, W	32	0.0%
11	W, AN	-7,742	-2.5%
12	D, D	12,485	2.8%
13	W, W	5,689	1.8%
14	D, D	18,178	4.0%
15	C, C	31,378	6.0%
16	D, C	7,754	1.4%
17	C, C	1,212	0.2%
18	C, C	-12,678	-1.6%
19	C, C	37	0.0%
20	AN, W	-31,512	-7.5%
21	C, C	21,882	4.0%
22	W, W	7,464	2.2%
23	W, W	1,570	0.5%
24	W, W	-7,002	-2.3%
25	W, W	81	0.0%
26	W, AN	-3,183	-1.1%
27	AN, AN	1,562	0.4%
28	D, D	13,691	3.0%
29	D, D	11,675	2.5%
30	AN, BN	-10,812	-2.5%
31	BN, D	-13,458	-2.9%
32	AN, W	-4,244	-1.4%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
33	W, W	-3,541	-1.2%
34	D, C	2,764	0.7%
35	C, C	17,545	3.6%
36	D, BN	16,158	2.9%
37	BN, AN	8,696	2.0%
38	W, W	1,163	0.4%
39	BN, D	-15,392	-4.0%
40	D, C	13,732	3.0%
41	C, C	-41,576	-5.4%
42	C, C	-1,525	-0.2%
<b>Average</b>		<b>676</b>	<b>0.2%</b>
<b>Maximum</b>		<b>31,378</b>	<b>6.0%</b>
<b>Minimum</b>		<b>-41,576</b>	<b>-7.5%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-53. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 11 (SR11) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	-18	0.0%
2	W, W	-43	0.0%
3	C, C	-3,373	-0.8%
4	C, C	-320	-0.1%
5	AN, W	-27	0.0%
6	BN, AN	-15	0.0%
7	AN, W	1	0.0%
8	D, D	-3,286	-0.9%
9	W, W	-68	0.0%
10	W, W	3	0.0%
11	W, AN	28	0.0%
12	D, D	-7	0.0%
13	W, W	22	0.0%
14	D, D	-17	0.0%
15	C, C	-54	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
16	D, C	14	0.0%
17	C, C	-67	0.0%
18	C, C	98	0.0%
19	C, C	-286	-0.1%
20	AN, W	-3,793	-1.1%
21	C, C	680	0.2%
22	W, W	424	0.1%
23	W, W	108	0.0%
24	W, W	9,848	3.1%
25	W, W	7,616	3.1%
26	W, AN	-29	0.0%
27	AN, AN	-38	0.0%
28	D, D	131	0.0%
29	D, D	182	0.1%
30	AN, BN	107	0.0%
31	BN, D	-248	-0.1%
32	AN, W	12,242	4.6%
33	W, W	225	0.1%
34	D, C	-122	0.0%
35	C, C	10	0.0%
36	D, BN	-29	0.0%
37	BN, AN	-1	0.0%
38	W, W	18	0.0%
39	BN, D	-250	-0.1%
40	D, C	213	0.1%
41	C, C	440	0.1%
42	C, C	52	0.0%
<b>Average</b>		<b>485</b>	<b>0.2%</b>
<b>Maximum</b>		<b>12,242</b>	<b>4.6%</b>
<b>Minimum</b>		<b>-3,793</b>	<b>-1.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-54. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 12 (SR12) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	-64	0.0%
2	W, W	-57	0.0%
3	C, C	4	0.0%
4	C, C	247	0.0%
5	AN, W	71	0.0%
6	BN, AN	7	0.0%
7	AN, W	-19	0.0%
8	D, D	-62	0.0%
9	W, W	-148	0.0%
10	W, W	16	0.0%
11	W, AN	3	0.0%
12	D, D	-251	0.0%
13	W, W	68	0.0%
14	D, D	-86	0.0%
15	C, C	-216	0.0%
16	D, C	288	0.0%
17	C, C	-271	0.0%
18	C, C	-119	0.0%
19	C, C	-497	-0.1%
20	AN, W	-11,270	-1.9%
21	C, C	2,751	0.4%
22	W, W	1,261	0.3%
23	W, W	0	0.0%
24	W, W	-44	0.0%
25	W, W	20	0.0%
26	W, AN	-29	0.0%
27	AN, AN	31	0.0%
28	D, D	-20	0.0%
29	D, D	-151	0.0%
30	AN, BN	35	0.0%
31	BN, D	-34	0.0%
32	AN, W	115	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
33	W, W	-30	0.0%
34	D, C	2	0.0%
35	C, C	-22	0.0%
36	D, BN	-226	0.0%
37	BN, AN	73	0.0%
38	W, W	18	0.0%
39	BN, D	44	0.0%
40	D, C	-163	0.0%
41	C, C	-146	0.0%
42	C, C	152	0.0%
<b>Average</b>		<b>-208</b>	<b>0.0%</b>
<b>Maximum</b>		<b>2,751</b>	<b>0.4%</b>
<b>Minimum</b>		<b>-11,270</b>	<b>-1.9%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-55. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 13 (SR13) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	244	0.0%
2	W, W	22	0.0%
3	C, C	12	0.0%
4	C, C	-2,912	-0.1%
5	AN, W	-17	0.0%
6	BN, AN	104	0.0%
7	AN, W	-135	0.0%
8	D, D	21	0.0%
9	W, W	126	0.0%
10	W, W	226	0.0%
11	W, AN	394	0.0%
12	D, D	-106	0.0%
13	W, W	-117	0.0%
14	D, D	-247	0.0%
15	C, C	282	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
16	D, C	686	0.0%
17	C, C	-971	0.0%
18	C, C	-1,192	-0.1%
19	C, C	164	0.0%
20	AN, W	-330	0.0%
21	C, C	284	0.0%
22	W, W	162	0.0%
23	W, W	377	0.0%
24	W, W	116	0.0%
25	W, W	-299	0.0%
26	W, AN	-409	0.0%
27	AN, AN	14	0.0%
28	D, D	-203	0.0%
29	D, D	-220	0.0%
30	AN, BN	361	0.0%
31	BN, D	-240	0.0%
32	AN, W	-478	0.0%
33	W, W	-384	0.0%
34	D, C	-198	0.0%
35	C, C	-419	0.0%
36	D, BN	-410	0.0%
37	BN, AN	-365	0.0%
38	W, W	604	0.0%
39	BN, D	-586	0.0%
40	D, C	-131	0.0%
41	C, C	-4,402	-0.2%
42	C, C	-368	0.0%
<b>Average</b>		<b>-261</b>	<b>0.0%</b>
<b>Maximum</b>		<b>686</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-4,402</b>	<b>-0.2%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-56. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 14 (SR14) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	-2,744	-1.3%
2	W, W	-6,944	-2.1%
3	C, C	35,870	5.5%
4	C, C	19,514	1.5%
5	AN, W	-1,370	-0.4%
6	BN, AN	3,804	0.8%
7	AN, W	-4,260	-1.7%
8	D, D	46,611	10.0%
9	W, W	12,278	4.2%
10	W, W	-2	0.0%
11	W, AN	-6,844	-3.6%
12	D, D	39,424	7.9%
13	W, W	11,262	4.4%
14	D, D	46,599	9.2%
15	C, C	92,761	12.8%
16	D, C	24,783	3.3%
17	C, C	5,517	0.5%
18	C, C	-392	0.0%
19	C, C	388	0.0%
20	AN, W	-96,624	-15.8%
21	C, C	69,847	8.7%
22	W, W	11,168	3.2%
23	W, W	3,751	1.4%
24	W, W	-42,963	-16.4%
25	W, W	-5,169	-2.4%
26	W, AN	-7,176	-3.0%
27	AN, AN	5,710	1.0%
28	D, D	42,412	5.6%
29	D, D	38,689	4.9%
30	AN, BN	6,047	0.9%
31	BN, D	52,395	7.3%
32	AN, W	-18,322	-5.3%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
33	W, W	-5,147	-2.4%
34	D, C	27,572	4.6%
35	C, C	57,008	6.6%
36	D, BN	61,101	5.1%
37	BN, AN	26,820	3.3%
38	W, W	3,867	1.3%
39	BN, D	-39,682	-9.1%
40	D, C	47,316	6.1%
41	C, C	38,491	3.2%
42	C, C	-619	0.0%
<b>Average</b>		<b>14,113</b>	<b>1.4%</b>
<b>Maximum</b>		<b>92,761</b>	<b>12.8%</b>
<b>Minimum</b>		<b>-96,624</b>	<b>-16.4%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-57. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 15 (SR15) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	-3,610	-0.3%
2	W, W	-2,611	-0.2%
3	C, C	108	0.0%
4	C, C	-3,594	-0.2%
5	AN, W	-2,943	-0.2%
6	BN, AN	-2,247	-0.2%
7	AN, W	-2,719	-0.2%
8	D, D	742	0.0%
9	W, W	-5,287	-0.5%
10	W, W	34	0.0%
11	W, AN	-499	0.0%
12	D, D	-1,702	-0.1%
13	W, W	565	0.0%
14	D, D	2,961	0.2%
15	C, C	4,219	0.2%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
16	D, C	-1,646	-0.1%
17	C, C	-258	0.0%
18	C, C	-7,554	-0.4%
19	C, C	7,002	0.4%
20	AN, W	-3,134	-0.3%
21	C, C	33	0.0%
22	W, W	302	0.0%
23	W, W	-7,705	-0.6%
24	W, W	-3,345	-0.2%
25	W, W	-808	-0.1%
26	W, AN	1,671	0.1%
27	AN, AN	-6,790	-0.5%
28	D, D	-764	0.0%
29	D, D	-5,195	-0.3%
30	AN, BN	1,726	0.1%
31	BN, D	-13,924	-0.8%
32	AN, W	-1,977	-0.2%
33	W, W	-279	0.0%
34	D, C	-6,181	-0.4%
35	C, C	-117	0.0%
36	D, BN	131	0.0%
37	BN, AN	-910	-0.1%
38	W, W	-5,859	-0.5%
39	BN, D	-3,399	-0.2%
40	D, C	-2,141	-0.1%
41	C, C	812	0.0%
42	C, C	-1,470	-0.1%
<b>Average</b>		<b>-1,866</b>	<b>-0.1%</b>
<b>Maximum</b>		<b>7,002</b>	<b>0.4%</b>
<b>Minimum</b>		<b>-13,924</b>	<b>-0.8%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-58. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 16 (SR16) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	-2	0.0%
2	W, W	-27	-0.1%
3	C, C	29	0.0%
4	C, C	153	0.1%
5	AN, W	-51	0.0%
6	BN, AN	0	0.0%
7	AN, W	-8	0.0%
8	D, D	13	0.0%
9	W, W	-35	0.0%
10	W, W	0	0.0%
11	W, AN	8	0.0%
12	D, D	-18	0.0%
13	W, W	0	0.0%
14	D, D	67	0.0%
15	C, C	106	0.1%
16	D, C	-38	0.0%
17	C, C	107	0.0%
18	C, C	-10	0.0%
19	C, C	-49	0.0%
20	AN, W	-75	-0.1%
21	C, C	-18	0.0%
22	W, W	-8	0.0%
23	W, W	0	0.0%
24	W, W	8	0.0%
25	W, W	0	0.0%
26	W, AN	0	0.0%
27	AN, AN	-5	0.0%
28	D, D	-3	0.0%
29	D, D	-18	0.0%
30	AN, BN	88	0.1%
31	BN, D	6	0.0%
32	AN, W	0	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
33	W, W	39	0.1%
34	D, C	-3	0.0%
35	C, C	-233	-0.2%
36	D, BN	60	0.0%
37	BN, AN	90	0.1%
38	W, W	-4	0.0%
39	BN, D	20	0.0%
40	D, C	-36	0.0%
41	C, C	102	0.0%
42	C, C	-3	0.0%
<b>Average</b>		<b>6</b>	<b>0.0%</b>
<b>Maximum</b>		<b>153</b>	<b>0.1%</b>
<b>Minimum</b>		<b>-233</b>	<b>-0.2%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-59. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 17 (SR17) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	-20	0.0%
2	W, W	-33	0.0%
3	C, C	-58	0.0%
4	C, C	-87	0.0%
5	AN, W	29	0.0%
6	BN, AN	-27	0.0%
7	AN, W	-13	0.0%
8	D, D	-36	0.0%
9	W, W	-26	0.0%
10	W, W	2	0.0%
11	W, AN	-3	0.0%
12	D, D	33	0.0%
13	W, W	-83	0.0%
14	D, D	64	0.0%
15	C, C	-118	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
16	D, C	4	0.0%
17	C, C	45	0.0%
18	C, C	-8	0.0%
19	C, C	-29	0.0%
20	AN, W	12	0.0%
21	C, C	-20	0.0%
22	W, W	3	0.0%
23	W, W	3	0.0%
24	W, W	72	0.0%
25	W, W	-26	0.0%
26	W, AN	-130	0.0%
27	AN, AN	132	0.0%
28	D, D	19	0.0%
29	D, D	-105	0.0%
30	AN, BN	98	0.0%
31	BN, D	62	0.0%
32	AN, W	56	0.0%
33	W, W	116	0.1%
34	D, C	-18	0.0%
35	C, C	-50	0.0%
36	D, BN	-25	0.0%
37	BN, AN	100	0.0%
38	W, W	-46	0.0%
39	BN, D	63	0.0%
40	D, C	-55	0.0%
41	C, C	5	0.0%
42	C, C	51	0.0%
<b>Average</b>		<b>-1</b>	<b>0.0%</b>
<b>Maximum</b>		<b>132</b>	<b>0.1%</b>
<b>Minimum</b>		<b>-130</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-60. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 18 (SR18) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	-272	0.0%
2	W, W	-121	0.0%
3	C, C	377	0.0%
4	C, C	-18	0.0%
5	AN, W	-6	0.0%
6	BN, AN	-352	0.0%
7	AN, W	-34	0.0%
8	D, D	26	0.0%
9	W, W	-16	0.0%
10	W, W	-25	0.0%
11	W, AN	50	0.0%
12	D, D	89	0.0%
13	W, W	28	0.0%
14	D, D	238	0.0%
15	C, C	136	0.0%
16	D, C	164	0.0%
17	C, C	150	0.0%
18	C, C	359	0.0%
19	C, C	-57	0.0%
20	AN, W	215	0.0%
21	C, C	-24	0.0%
22	W, W	23	0.0%
23	W, W	-65	0.0%
24	W, W	10	0.0%
25	W, W	-116	0.0%
26	W, AN	-92	0.0%
27	AN, AN	-72	0.0%
28	D, D	-294	0.0%
29	D, D	96	0.0%
30	AN, BN	162	0.0%
31	BN, D	85	0.0%
32	AN, W	77	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
33	W, W	-403	0.0%
34	D, C	472	0.0%
35	C, C	21	0.0%
36	D, BN	20	0.0%
37	BN, AN	-42	0.0%
38	W, W	65	0.0%
39	BN, D	-132	0.0%
40	D, C	108	0.0%
41	C, C	229	0.0%
42	C, C	-30	0.0%
<b>Average</b>		<b>25</b>	<b>0.0%</b>
<b>Maximum</b>		<b>472</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-403</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-61. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 19 (SR19) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	0	0.0%
3	C, C	-36	0.0%
4	C, C	-36	0.0%
5	AN, W	0	0.0%
6	BN, AN	-2	0.0%
7	AN, W	22	0.0%
8	D, D	0	0.0%
9	W, W	0	0.0%
10	W, W	0	0.0%
11	W, AN	65	0.0%
12	D, D	20	0.0%
13	W, W	-1	0.0%
14	D, D	-11	0.0%
15	C, C	75	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
16	D, C	-193	0.0%
17	C, C	0	0.0%
18	C, C	6	0.0%
19	C, C	-35	0.0%
20	AN, W	-31	0.0%
21	C, C	-71	0.0%
22	W, W	0	0.0%
23	W, W	-77	0.0%
24	W, W	30	0.0%
25	W, W	1	0.0%
26	W, AN	-8	0.0%
27	AN, AN	0	0.0%
28	D, D	-44	0.0%
29	D, D	-68	0.0%
30	AN, BN	-3	0.0%
31	BN, D	0	0.0%
32	AN, W	0	0.0%
33	W, W	0	0.0%
34	D, C	0	0.0%
35	C, C	0	0.0%
36	D, BN	0	0.0%
37	BN, AN	-51	0.0%
38	W, W	0	0.0%
39	BN, D	0	0.0%
40	D, C	0	0.0%
41	C, C	0	0.0%
42	C, C	0	0.0%
<b>Average</b>		<b>-11</b>	<b>0.0%</b>
<b>Maximum</b>		<b>75</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-193</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-62. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 20 (SR20) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	0	0.0%
3	C, C	-2	0.0%
4	C, C	0	0.0%
5	AN, W	0	0.0%
6	BN, AN	-2	0.0%
7	AN, W	0	0.0%
8	D, D	0	0.0%
9	W, W	0	0.0%
10	W, W	-40	0.0%
11	W, AN	0	0.0%
12	D, D	0	0.0%
13	W, W	0	0.0%
14	D, D	0	0.0%
15	C, C	5	0.0%
16	D, C	31	0.0%
17	C, C	37	0.0%
18	C, C	1	0.0%
19	C, C	113	0.0%
20	AN, W	-60	0.0%
21	C, C	-17	0.0%
22	W, W	-22	0.0%
23	W, W	6	0.0%
24	W, W	-30	0.0%
25	W, W	-12	0.0%
26	W, AN	0	0.0%
27	AN, AN	0	0.0%
28	D, D	0	0.0%
29	D, D	0	0.0%
30	AN, BN	1	0.0%
31	BN, D	-120	0.0%
32	AN, W	262	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
33	W, W	-136	0.0%
34	D, C	0	0.0%
35	C, C	22	0.0%
36	D, BN	2	0.0%
37	BN, AN	17	0.0%
38	W, W	-35	0.0%
39	BN, D	1	0.0%
40	D, C	-2	0.0%
41	C, C	27	0.0%
42	C, C	9	0.0%
<b>Average</b>		<b>1</b>	<b>0.0%</b>
<b>Maximum</b>		<b>262</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-136</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-63. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 21 (SR21) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	-11	0.0%
2	W, W	-46	0.0%
3	C, C	-149	0.0%
4	C, C	-56	0.0%
5	AN, W	27	0.0%
6	BN, AN	-100	0.0%
7	AN, W	-28	0.0%
8	D, D	21	0.0%
9	W, W	29	0.0%
10	W, W	-1	0.0%
11	W, AN	8	0.0%
12	D, D	-7	0.0%
13	W, W	-24	0.0%
14	D, D	-43	0.0%
15	C, C	265	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
16	D, C	98	0.0%
17	C, C	0	0.0%
18	C, C	76	0.0%
19	C, C	191	0.0%
20	AN, W	72	0.0%
21	C, C	96	0.0%
22	W, W	-240	0.0%
23	W, W	47	0.0%
24	W, W	58	0.0%
25	W, W	15	0.0%
26	W, AN	66	0.0%
27	AN, AN	95	0.0%
28	D, D	0	0.0%
29	D, D	-10	0.0%
30	AN, BN	-23	0.0%
31	BN, D	-94	0.0%
32	AN, W	-44	0.0%
33	W, W	15	0.0%
34	D, C	-1	0.0%
35	C, C	32	0.0%
36	D, BN	32	0.0%
37	BN, AN	-1	0.0%
38	W, W	136	0.0%
39	BN, D	-61	0.0%
40	D, C	-64	0.0%
41	C, C	-18	0.0%
42	C, C	-33	0.0%
<b>Average</b>		<b>8</b>	<b>0.0%</b>
<b>Maximum</b>		<b>265</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-240</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

**I-1.1.4 Changes in Groundwater Pumping, Alternative 2 without TUCP Without VA Compared to No Action Alternative**

Table I.1-64 through Table I.1-84 provide the annual simulated groundwater pumping through the model simulation period for each of the 21 model subregions for Alternative 2 without TUCP without VA compared to the No Action Alternative.

Table I.1-64. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 1 (SR1) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	-38	-0.1%
2	W, W	-118	-0.2%
3	C, C	999	1.6%
4	C, C	6,496	8.5%
5	AN, W	133	0.2%
6	BN, AN	774	1.3%
7	AN, W	9	0.0%
8	D, D	-235	-0.4%
9	W, W	-52	-0.1%
10	W, W	-9	0.0%
11	W, AN	62	0.1%
12	D, D	299	0.5%
13	W, W	-65	-0.1%
14	D, D	2,280	3.2%
15	C, C	3,892	5.2%
16	D, C	627	0.9%
17	C, C	-2,721	-3.8%
18	C, C	4,563	5.5%
19	C, C	2,165	2.5%
20	AN, W	342	0.6%
21	C, C	4,341	6.1%
22	W, W	1,366	2.2%
23	W, W	-60	-0.1%
24	W, W	-103	-0.2%
25	W, W	-80	-0.1%
26	W, AN	57	0.1%
27	AN, AN	28	0.0%
28	D, D	734	1.2%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
29	D, D	196	0.3%
30	AN, BN	10	0.0%
31	BN, D	-23	0.0%
32	AN, W	0	0.0%
33	W, W	-32	0.0%
34	D, C	79	0.1%
35	C, C	2,926	4.2%
36	D, BN	434	0.6%
37	BN, AN	-116	-0.2%
38	W, W	-24	0.0%
39	BN, D	-131	-0.2%
40	D, C	3,592	5.1%
41	C, C	7,687	9.0%
42	C, C	182	0.2%
<b>Average</b>		<b>963</b>	<b>1.3%</b>
<b>Maximum</b>		<b>7,687</b>	<b>9.0%</b>
<b>Minimum</b>		<b>-2,721</b>	<b>-3.8%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-65. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 2 (SR2) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	4	0.0%
2	W, W	98	0.0%
3	C, C	2,933	0.5%
4	C, C	4,669	0.7%
5	AN, W	629	0.1%
6	BN, AN	1,597	0.3%
7	AN, W	310	0.1%
8	D, D	-1,340	-0.2%
9	W, W	-161	0.0%
10	W, W	-18	0.0%
11	W, AN	5	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
12	D, D	766	0.1%
13	W, W	649	0.1%
14	D, D	5,389	0.9%
15	C, C	11,114	1.8%
16	D, C	1,388	0.2%
17	C, C	-3,180	-0.6%
18	C, C	4,299	0.7%
19	C, C	1,070	0.2%
20	AN, W	36	0.0%
21	C, C	11,998	2.2%
22	W, W	3,408	0.7%
23	W, W	18	0.0%
24	W, W	1	0.0%
25	W, W	-8	0.0%
26	W, AN	37	0.0%
27	AN, AN	27	0.0%
28	D, D	1,772	0.3%
29	D, D	17	0.0%
30	AN, BN	-38	0.0%
31	BN, D	-766	-0.1%
32	AN, W	-4	0.0%
33	W, W	-1	0.0%
34	D, C	219	0.0%
35	C, C	6,596	1.2%
36	D, BN	960	0.2%
37	BN, AN	-40	0.0%
38	W, W	0	0.0%
39	BN, D	-3	0.0%
40	D, C	7,443	1.2%
41	C, C	5,943	0.9%
42	C, C	5,132	0.8%
<b>Average</b>		<b>1,737</b>	<b>0.3%</b>
<b>Maximum</b>		<b>11,998</b>	<b>2.2%</b>
<b>Minimum</b>		<b>-3,180</b>	<b>-0.6%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-66. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 3 (SR3) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	1,240	0.4%
3	C, C	16,177	3.6%
4	C, C	74,477	12.9%
5	AN, W	5,395	1.5%
6	BN, AN	8,952	2.4%
7	AN, W	1,592	0.5%
8	D, D	-7,217	-2.0%
9	W, W	-786	-0.3%
10	W, W	94	0.0%
11	W, AN	375	0.1%
12	D, D	4,550	1.2%
13	W, W	8,356	2.5%
14	D, D	29,485	7.0%
15	C, C	56,750	12.7%
16	D, C	4,616	1.1%
17	C, C	-34,356	-7.3%
18	C, C	79,984	15.0%
19	C, C	8,593	1.4%
20	AN, W	907	0.3%
21	C, C	67,884	17.0%
22	W, W	14,684	4.6%
23	W, W	145	0.0%
24	W, W	163	0.1%
25	W, W	43	0.0%
26	W, AN	592	0.2%
27	AN, AN	407	0.1%
28	D, D	9,287	2.5%
29	D, D	-5,743	-1.6%
30	AN, BN	-346	-0.1%
31	BN, D	-10,241	-3.0%
32	AN, W	-311	-0.1%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
33	W, W	0	0.0%
34	D, C	3,166	0.9%
35	C, C	36,112	8.8%
36	D, BN	4,656	1.0%
37	BN, AN	710	0.2%
38	W, W	12	0.0%
39	BN, D	-13	0.0%
40	D, C	38,169	9.3%
41	C, C	86,731	14.9%
42	C, C	10,727	1.8%
<b>Average</b>		<b>12,286</b>	<b>2.6%</b>
<b>Maximum</b>		<b>86,731</b>	<b>17.0%</b>
<b>Minimum</b>		<b>-34,356</b>	<b>-7.3%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-67. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 4 (SR4) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	-15	0.0%
3	C, C	76	0.0%
4	C, C	34,145	9.1%
5	AN, W	1,171	0.3%
6	BN, AN	1,026	0.3%
7	AN, W	-7,108	-2.2%
8	D, D	-370	-0.1%
9	W, W	10,923	3.6%
10	W, W	0	0.0%
11	W, AN	10	0.0%
12	D, D	6	0.0%
13	W, W	10	0.0%
14	D, D	53	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
15	C, C	1,084	0.3%
16	D, C	422	0.1%
17	C, C	-14,425	-4.5%
18	C, C	31,376	9.5%
19	C, C	1,723	0.5%
20	AN, W	1,286	0.4%
21	C, C	932	0.3%
22	W, W	27	0.0%
23	W, W	3	0.0%
24	W, W	0	0.0%
25	W, W	0	0.0%
26	W, AN	1	0.0%
27	AN, AN	2,513	0.8%
28	D, D	38	0.0%
29	D, D	5	0.0%
30	AN, BN	16	0.0%
31	BN, D	-490	-0.1%
32	AN, W	7	0.0%
33	W, W	0	0.0%
34	D, C	6	0.0%
35	C, C	40	0.0%
36	D, BN	-994	-0.3%
37	BN, AN	-7	0.0%
38	W, W	-442	-0.1%
39	BN, D	15	0.0%
40	D, C	87	0.0%
41	C, C	37,847	9.9%
42	C, C	4,120	1.1%
<b>Average</b>		<b>2,503</b>	<b>0.7%</b>
<b>Maximum</b>		<b>37,847</b>	<b>9.9%</b>
<b>Minimum</b>		<b>-14,425</b>	<b>-4.5%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-68. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 5 (SR5) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	-39	0.0%
2	W, W	-244	-0.1%
3	C, C	1,235	0.3%
4	C, C	317	0.1%
5	AN, W	420	0.1%
6	BN, AN	865	0.2%
7	AN, W	226	0.1%
8	D, D	-517	-0.1%
9	W, W	37	0.0%
10	W, W	147	0.0%
11	W, AN	-17	0.0%
12	D, D	-308	-0.1%
13	W, W	50	0.0%
14	D, D	2,269	0.5%
15	C, C	4,459	0.9%
16	D, C	-3,394	-0.7%
17	C, C	316	0.1%
18	C, C	-1,097	-0.2%
19	C, C	6,082	1.2%
20	AN, W	1,932	0.5%
21	C, C	5,218	1.1%
22	W, W	1,019	0.3%
23	W, W	-9	0.0%
24	W, W	29	0.0%
25	W, W	42	0.0%
26	W, AN	-77	0.0%
27	AN, AN	177	0.0%
28	D, D	691	0.1%
29	D, D	246	0.1%
30	AN, BN	-84	0.0%
31	BN, D	-10	0.0%
32	AN, W	158	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
33	W, W	-118	0.0%
34	D, C	162	0.0%
35	C, C	2,736	0.6%
36	D, BN	223	0.0%
37	BN, AN	-187	0.0%
38	W, W	-1	0.0%
39	BN, D	101	0.0%
40	D, C	2,932	0.6%
41	C, C	610	0.1%
42	C, C	141	0.0%
<b>Average</b>		<b>637</b>	<b>0.1%</b>
<b>Maximum</b>		<b>6,082</b>	<b>1.2%</b>
<b>Minimum</b>		<b>-3,394</b>	<b>-0.7%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-69. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 6 (SR6) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	-184	0.0%
2	W, W	425	0.1%
3	C, C	600	0.1%
4	C, C	-609	-0.1%
5	AN, W	98	0.0%
6	BN, AN	500	0.1%
7	AN, W	63	0.0%
8	D, D	585	0.1%
9	W, W	797	0.1%
10	W, W	-814	-0.1%
11	W, AN	210	0.0%
12	D, D	1,349	0.2%
13	W, W	403	0.1%
14	D, D	-708	-0.1%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
15	C, C	1,624	0.2%
16	D, C	-238	0.0%
17	C, C	-4,351	-0.5%
18	C, C	-2,194	-0.3%
19	C, C	1,160	0.1%
20	AN, W	478	0.1%
21	C, C	2,024	0.3%
22	W, W	-687	-0.1%
23	W, W	-235	0.0%
24	W, W	1	0.0%
25	W, W	-297	0.0%
26	W, AN	-994	-0.2%
27	AN, AN	324	0.0%
28	D, D	10	0.0%
29	D, D	273	0.0%
30	AN, BN	1,001	0.1%
31	BN, D	1,244	0.2%
32	AN, W	-54	0.0%
33	W, W	666	0.1%
34	D, C	-662	-0.1%
35	C, C	1,946	0.3%
36	D, BN	966	0.1%
37	BN, AN	4	0.0%
38	W, W	388	0.1%
39	BN, D	1	0.0%
40	D, C	1,253	0.2%
41	C, C	-2,077	-0.2%
42	C, C	555	0.1%
<b>Average</b>		<b>115</b>	<b>0.0%</b>
<b>Maximum</b>		<b>2,024</b>	<b>0.3%</b>
<b>Minimum</b>		<b>-4,351</b>	<b>-0.5%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-70. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 7 (SR7) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	545	0.2%
2	W, W	717	0.2%
3	C, C	490	0.1%
4	C, C	-12,621	-3.0%
5	AN, W	-1,330	-0.4%
6	BN, AN	-16	0.0%
7	AN, W	-475	-0.1%
8	D, D	-729	-0.2%
9	W, W	-1,121	-0.3%
10	W, W	-559	-0.2%
11	W, AN	-127	0.0%
12	D, D	210	0.1%
13	W, W	-126	0.0%
14	D, D	-569	-0.1%
15	C, C	-396	-0.1%
16	D, C	-115	0.0%
17	C, C	-6,011	-1.7%
18	C, C	-10,099	-2.6%
19	C, C	-2,201	-0.6%
20	AN, W	-134	0.0%
21	C, C	616	0.2%
22	W, W	-49	0.0%
23	W, W	355	0.1%
24	W, W	-698	-0.2%
25	W, W	2,809	0.8%
26	W, AN	1,210	0.3%
27	AN, AN	711	0.2%
28	D, D	-91	0.0%
29	D, D	-99	0.0%
30	AN, BN	-257	-0.1%
31	BN, D	617	0.2%
32	AN, W	-256	-0.1%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
33	W, W	-461	-0.1%
34	D, C	-948	-0.2%
35	C, C	-571	-0.1%
36	D, BN	-172	0.0%
37	BN, AN	985	0.3%
38	W, W	-588	-0.2%
39	BN, D	-360	-0.1%
40	D, C	-125	0.0%
41	C, C	-13,456	-3.3%
42	C, C	-1,474	-0.4%
<b>Average</b>		<b>-1,118</b>	<b>-0.3%</b>
<b>Maximum</b>		<b>2,809</b>	<b>0.8%</b>
<b>Minimum</b>		<b>-13,456</b>	<b>-3.3%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-71. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 8 (SR8) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	-138	0.0%
2	W, W	-300	0.0%
3	C, C	-499	0.0%
4	C, C	-132	0.0%
5	AN, W	132	0.0%
6	BN, AN	-14	0.0%
7	AN, W	101	0.0%
8	D, D	-99	0.0%
9	W, W	-9	0.0%
10	W, W	-383	-0.1%
11	W, AN	431	0.0%
12	D, D	-167	0.0%
13	W, W	-252	0.0%
14	D, D	-692	-0.1%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
15	C, C	30	0.0%
16	D, C	239	0.0%
17	C, C	13	0.0%
18	C, C	-203	0.0%
19	C, C	422	0.0%
20	AN, W	-249	0.0%
21	C, C	-1,159	-0.1%
22	W, W	247	0.0%
23	W, W	-192	0.0%
24	W, W	-1,096	-0.1%
25	W, W	63	0.0%
26	W, AN	-68	0.0%
27	AN, AN	217	0.0%
28	D, D	-401	0.0%
29	D, D	266	0.0%
30	AN, BN	-197	0.0%
31	BN, D	334	0.0%
32	AN, W	-387	0.0%
33	W, W	-903	-0.1%
34	D, C	164	0.0%
35	C, C	-21	0.0%
36	D, BN	245	0.0%
37	BN, AN	203	0.0%
38	W, W	79	0.0%
39	BN, D	668	0.1%
40	D, C	56	0.0%
41	C, C	-250	0.0%
42	C, C	-261	0.0%
<b>Average</b>		<b>-99</b>	<b>0.0%</b>
<b>Maximum</b>		<b>668</b>	<b>0.1%</b>
<b>Minimum</b>		<b>-1,159</b>	<b>-0.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-72. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 9 (SR9) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	104	0.0%
2	W, W	-136	0.0%
3	C, C	858	0.2%
4	C, C	427	0.1%
5	AN, W	-30	0.0%
6	BN, AN	107	0.0%
7	AN, W	-192	0.0%
8	D, D	980	0.2%
9	W, W	444	0.1%
10	W, W	-218	-0.1%
11	W, AN	-1,021	-0.2%
12	D, D	1,068	0.2%
13	W, W	388	0.1%
14	D, D	1,173	0.2%
15	C, C	2,821	0.5%
16	D, C	1,655	0.3%
17	C, C	-1,341	-0.3%
18	C, C	-1,324	-0.2%
19	C, C	-1,528	-0.3%
20	AN, W	-2,935	-0.6%
21	C, C	2,293	0.4%
22	W, W	701	0.1%
23	W, W	316	0.1%
24	W, W	-2,674	-0.5%
25	W, W	-68	0.0%
26	W, AN	-308	-0.1%
27	AN, AN	1	0.0%
28	D, D	1,247	0.2%
29	D, D	1,082	0.2%
30	AN, BN	-1,722	-0.3%
31	BN, D	-2,192	-0.4%
32	AN, W	-300	-0.1%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
33	W, W	-310	-0.1%
34	D, C	438	0.1%
35	C, C	1,306	0.2%
36	D, BN	1,538	0.3%
37	BN, AN	729	0.2%
38	W, W	-17	0.0%
39	BN, D	-574	-0.1%
40	D, C	1,457	0.3%
41	C, C	150	0.0%
42	C, C	-1,378	-0.3%
<b>Average</b>		<b>72</b>	<b>0.0%</b>
<b>Maximum</b>		<b>2,821</b>	<b>0.5%</b>
<b>Minimum</b>		<b>-2,935</b>	<b>-0.6%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-73. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 10 (SR10) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	-2,061	-0.7%
2	W, W	-1,536	-0.4%
3	C, C	11,107	2.1%
4	C, C	-99,894	-12.3%
5	AN, W	-2,023	-0.5%
6	BN, AN	59	0.0%
7	AN, W	-1,598	-0.5%
8	D, D	13,497	3.0%
9	W, W	3,657	1.2%
10	W, W	-97	0.0%
11	W, AN	-7,307	-2.4%
12	D, D	12,537	2.8%
13	W, W	5,681	1.8%
14	D, D	17,853	3.9%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
15	C, C	31,242	5.9%
16	D, C	8,718	1.6%
17	C, C	-16,059	-2.6%
18	C, C	-20,589	-2.7%
19	C, C	-11,393	-1.5%
20	AN, W	-28,835	-6.9%
21	C, C	30,032	5.4%
22	W, W	8,917	2.6%
23	W, W	1,378	0.4%
24	W, W	-6,927	-2.2%
25	W, W	-200	-0.1%
26	W, AN	-2,836	-1.0%
27	AN, AN	1,117	0.3%
28	D, D	13,809	3.0%
29	D, D	11,652	2.5%
30	AN, BN	-10,815	-2.5%
31	BN, D	-13,550	-2.9%
32	AN, W	-4,136	-1.4%
33	W, W	-3,602	-1.2%
34	D, C	3,007	0.7%
35	C, C	17,909	3.7%
36	D, BN	17,254	3.0%
37	BN, AN	8,472	2.0%
38	W, W	812	0.3%
39	BN, D	-15,449	-4.1%
40	D, C	13,795	3.1%
41	C, C	-64,074	-8.3%
42	C, C	-13,928	-1.9%
<b>Average</b>		<b>-2,248</b>	<b>-0.2%</b>
<b>Maximum</b>		<b>31,242</b>	<b>5.9%</b>
<b>Minimum</b>		<b>-99,894</b>	<b>-12.3%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-74. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 11 (SR11) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	-15	0.0%
2	W, W	-5	0.0%
3	C, C	-3,444	-0.8%
4	C, C	-246	0.0%
5	AN, W	6	0.0%
6	BN, AN	-18	0.0%
7	AN, W	5	0.0%
8	D, D	-3,282	-0.9%
9	W, W	-47	0.0%
10	W, W	17	0.0%
11	W, AN	-3	0.0%
12	D, D	-8	0.0%
13	W, W	38	0.0%
14	D, D	-18	0.0%
15	C, C	-35	0.0%
16	D, C	-17	0.0%
17	C, C	-204	-0.1%
18	C, C	-254	-0.1%
19	C, C	-148	0.0%
20	AN, W	-3,492	-1.0%
21	C, C	723	0.2%
22	W, W	400	0.1%
23	W, W	206	0.1%
24	W, W	9,744	3.0%
25	W, W	7,609	3.1%
26	W, AN	55	0.0%
27	AN, AN	-114	0.0%
28	D, D	149	0.0%
29	D, D	111	0.0%
30	AN, BN	72	0.0%
31	BN, D	-99	0.0%
32	AN, W	12,310	4.6%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
33	W, W	171	0.1%
34	D, C	-213	-0.1%
35	C, C	67	0.0%
36	D, BN	31	0.0%
37	BN, AN	-27	0.0%
38	W, W	34	0.0%
39	BN, D	-91	0.0%
40	D, C	188	0.0%
41	C, C	-199	0.0%
42	C, C	-318	-0.1%
<b>Average</b>		<b>468</b>	<b>0.2%</b>
<b>Maximum</b>		<b>12,310</b>	<b>4.6%</b>
<b>Minimum</b>		<b>-3,492</b>	<b>-1.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-75. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 12 (SR12) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	-68	0.0%
2	W, W	72	0.0%
3	C, C	27	0.0%
4	C, C	-106	0.0%
5	AN, W	86	0.0%
6	BN, AN	-12	0.0%
7	AN, W	67	0.0%
8	D, D	-11	0.0%
9	W, W	130	0.0%
10	W, W	-19	0.0%
11	W, AN	17	0.0%
12	D, D	-283	0.0%
13	W, W	107	0.0%
14	D, D	8	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
15	C, C	-115	0.0%
16	D, C	268	0.0%
17	C, C	-565	-0.1%
18	C, C	-209	0.0%
19	C, C	-19	0.0%
20	AN, W	-9,797	-1.6%
21	C, C	2,505	0.4%
22	W, W	1,047	0.2%
23	W, W	-10	0.0%
24	W, W	0	0.0%
25	W, W	-231	-0.1%
26	W, AN	3	0.0%
27	AN, AN	62	0.0%
28	D, D	33	0.0%
29	D, D	-8	0.0%
30	AN, BN	133	0.0%
31	BN, D	29	0.0%
32	AN, W	134	0.0%
33	W, W	-49	0.0%
34	D, C	1	0.0%
35	C, C	-235	0.0%
36	D, BN	-256	0.0%
37	BN, AN	71	0.0%
38	W, W	43	0.0%
39	BN, D	-244	0.0%
40	D, C	-351	0.0%
41	C, C	-244	0.0%
42	C, C	296	0.0%
<b>Average</b>		<b>-183</b>	<b>0.0%</b>
<b>Maximum</b>		<b>2,505</b>	<b>0.4%</b>
<b>Minimum</b>		<b>-9,797</b>	<b>-1.6%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-76. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 13 (SR13) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	205	0.0%
2	W, W	-217	0.0%
3	C, C	-182	0.0%
4	C, C	-9,388	-0.4%
5	AN, W	110	0.0%
6	BN, AN	529	0.0%
7	AN, W	10	0.0%
8	D, D	21	0.0%
9	W, W	150	0.0%
10	W, W	104	0.0%
11	W, AN	45	0.0%
12	D, D	350	0.0%
13	W, W	38	0.0%
14	D, D	70	0.0%
15	C, C	67	0.0%
16	D, C	600	0.0%
17	C, C	-494	0.0%
18	C, C	-1,868	-0.1%
19	C, C	298	0.0%
20	AN, W	-42	0.0%
21	C, C	56	0.0%
22	W, W	82	0.0%
23	W, W	220	0.0%
24	W, W	-223	0.0%
25	W, W	-321	0.0%
26	W, AN	-22	0.0%
27	AN, AN	-195	0.0%
28	D, D	37	0.0%
29	D, D	48	0.0%
30	AN, BN	-83	0.0%
31	BN, D	-119	0.0%
32	AN, W	-256	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
33	W, W	-346	0.0%
34	D, C	-142	0.0%
35	C, C	150	0.0%
36	D, BN	-316	0.0%
37	BN, AN	53	0.0%
38	W, W	310	0.0%
39	BN, D	-360	0.0%
40	D, C	-82	0.0%
41	C, C	-7,011	-0.3%
42	C, C	-927	0.0%
<b>Average</b>		<b>-453</b>	<b>0.0%</b>
<b>Maximum</b>		<b>600</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-9,388</b>	<b>-0.4%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-77. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 14 (SR14) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	-2,642	-1.2%
2	W, W	-6,756	-2.0%
3	C, C	35,661	5.5%
4	C, C	18,718	1.5%
5	AN, W	-2,471	-0.6%
6	BN, AN	8,942	1.9%
7	AN, W	730	0.3%
8	D, D	46,589	9.9%
9	W, W	12,345	4.2%
10	W, W	8	0.0%
11	W, AN	-6,844	-3.6%
12	D, D	39,457	7.9%
13	W, W	11,297	4.5%
14	D, D	46,822	9.2%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
15	C, C	93,575	12.9%
16	D, C	27,657	3.7%
17	C, C	-50,396	-4.6%
18	C, C	-24,950	-1.9%
19	C, C	-37,026	-2.8%
20	AN, W	-86,904	-14.2%
21	C, C	95,860	11.9%
22	W, W	18,758	5.4%
23	W, W	3,768	1.4%
24	W, W	-43,019	-16.4%
25	W, W	-5,249	-2.5%
26	W, AN	-7,166	-3.0%
27	AN, AN	5,583	0.9%
28	D, D	42,344	5.6%
29	D, D	38,503	4.9%
30	AN, BN	5,969	0.9%
31	BN, D	52,510	7.3%
32	AN, W	-18,240	-5.2%
33	W, W	-5,118	-2.3%
34	D, C	27,445	4.6%
35	C, C	56,938	6.6%
36	D, BN	63,451	5.3%
37	BN, AN	26,886	3.3%
38	W, W	3,544	1.2%
39	BN, D	-39,433	-9.0%
40	D, C	47,330	6.1%
41	C, C	37,448	3.1%
42	C, C	-39,393	-2.9%
<b>Average</b>		<b>11,727</b>	<b>1.4%</b>
<b>Maximum</b>		<b>95,860</b>	<b>12.9%</b>
<b>Minimum</b>		<b>-86,904</b>	<b>-16.4%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-78. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 15 (SR15) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	-3,455	-0.3%
2	W, W	-2,550	-0.2%
3	C, C	64	0.0%
4	C, C	-10,650	-0.6%
5	AN, W	-3,074	-0.2%
6	BN, AN	310	0.0%
7	AN, W	-2,055	-0.2%
8	D, D	146	0.0%
9	W, W	-5,211	-0.5%
10	W, W	-206	0.0%
11	W, AN	-429	0.0%
12	D, D	-1,753	-0.1%
13	W, W	583	0.0%
14	D, D	3,482	0.2%
15	C, C	4,484	0.3%
16	D, C	-1,698	-0.1%
17	C, C	-2,939	-0.2%
18	C, C	-6,077	-0.3%
19	C, C	5,668	0.3%
20	AN, W	-2,968	-0.2%
21	C, C	1,394	0.1%
22	W, W	786	0.1%
23	W, W	-8,302	-0.6%
24	W, W	-3,091	-0.2%
25	W, W	-871	-0.1%
26	W, AN	1,817	0.1%
27	AN, AN	-6,810	-0.5%
28	D, D	-413	0.0%
29	D, D	-5,788	-0.3%
30	AN, BN	1,758	0.1%
31	BN, D	-14,093	-0.8%
32	AN, W	-1,970	-0.2%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
33	W, W	-625	-0.1%
34	D, C	-6,021	-0.4%
35	C, C	-187	0.0%
36	D, BN	223	0.0%
37	BN, AN	-1,064	-0.1%
38	W, W	-5,863	-0.5%
39	BN, D	-3,297	-0.2%
40	D, C	-7,824	-0.4%
41	C, C	-2,503	-0.1%
42	C, C	-5,703	-0.3%
<b>Average</b>		<b>-2,304</b>	<b>-0.2%</b>
<b>Maximum</b>		<b>5,668</b>	<b>0.3%</b>
<b>Minimum</b>		<b>-14,093</b>	<b>-0.8%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-79. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 16 (SR16) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	-122	-0.2%
2	W, W	0	0.0%
3	C, C	-3	0.0%
4	C, C	79	0.0%
5	AN, W	-16	0.0%
6	BN, AN	0	0.0%
7	AN, W	1	0.0%
8	D, D	2	0.0%
9	W, W	-11	0.0%
10	W, W	0	0.0%
11	W, AN	8	0.0%
12	D, D	-6	0.0%
13	W, W	0	0.0%
14	D, D	-21	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
15	C, C	32	0.0%
16	D, C	-37	0.0%
17	C, C	28	0.0%
18	C, C	-45	0.0%
19	C, C	78	0.0%
20	AN, W	-21	0.0%
21	C, C	26	0.0%
22	W, W	-26	0.0%
23	W, W	0	0.0%
24	W, W	14	0.0%
25	W, W	0	0.0%
26	W, AN	-7	0.0%
27	AN, AN	0	0.0%
28	D, D	-51	0.0%
29	D, D	-45	0.0%
30	AN, BN	88	0.1%
31	BN, D	-13	0.0%
32	AN, W	5	0.0%
33	W, W	39	0.1%
34	D, C	-3	0.0%
35	C, C	-167	-0.1%
36	D, BN	-25	0.0%
37	BN, AN	-89	-0.1%
38	W, W	0	0.0%
39	BN, D	-62	0.0%
40	D, C	97	0.0%
41	C, C	70	0.0%
42	C, C	-64	0.0%
<b>Average</b>		<b>-6</b>	<b>0.0%</b>
<b>Maximum</b>		<b>97</b>	<b>0.1%</b>
<b>Minimum</b>		<b>-167</b>	<b>-0.2%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-80. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 17 (SR17) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	-2	0.0%
2	W, W	8	0.0%
3	C, C	-25	0.0%
4	C, C	-14	0.0%
5	AN, W	0	0.0%
6	BN, AN	-1	0.0%
7	AN, W	-47	0.0%
8	D, D	-57	0.0%
9	W, W	-1	0.0%
10	W, W	-4	0.0%
11	W, AN	-110	0.0%
12	D, D	-8	0.0%
13	W, W	10	0.0%
14	D, D	-9	0.0%
15	C, C	-134	0.0%
16	D, C	-86	0.0%
17	C, C	4	0.0%
18	C, C	13	0.0%
19	C, C	0	0.0%
20	AN, W	-9	0.0%
21	C, C	-97	0.0%
22	W, W	-10	0.0%
23	W, W	-92	0.0%
24	W, W	114	0.0%
25	W, W	-19	0.0%
26	W, AN	110	0.0%
27	AN, AN	22	0.0%
28	D, D	-64	0.0%
29	D, D	52	0.0%
30	AN, BN	-138	0.0%
31	BN, D	28	0.0%
32	AN, W	-5	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
33	W, W	4	0.0%
34	D, C	110	0.0%
35	C, C	6	0.0%
36	D, BN	-58	0.0%
37	BN, AN	75	0.0%
38	W, W	-9	0.0%
39	BN, D	-5	0.0%
40	D, C	-109	0.0%
41	C, C	-5	0.0%
42	C, C	40	0.0%
<b>Average</b>		<b>-12</b>	<b>0.0%</b>
<b>Maximum</b>		<b>114</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-138</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-81. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 18 (SR18) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	-19	0.0%
2	W, W	-40	0.0%
3	C, C	393	0.0%
4	C, C	27	0.0%
5	AN, W	89	0.0%
6	BN, AN	180	0.0%
7	AN, W	-53	0.0%
8	D, D	-45	0.0%
9	W, W	40	0.0%
10	W, W	-5	0.0%
11	W, AN	48	0.0%
12	D, D	130	0.0%
13	W, W	-32	0.0%
14	D, D	-16	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
15	C, C	148	0.0%
16	D, C	496	0.0%
17	C, C	239	0.0%
18	C, C	283	0.0%
19	C, C	258	0.0%
20	AN, W	-41	0.0%
21	C, C	256	0.0%
22	W, W	0	0.0%
23	W, W	-26	0.0%
24	W, W	96	0.0%
25	W, W	-230	0.0%
26	W, AN	-51	0.0%
27	AN, AN	-172	0.0%
28	D, D	89	0.0%
29	D, D	84	0.0%
30	AN, BN	150	0.0%
31	BN, D	-36	0.0%
32	AN, W	248	0.0%
33	W, W	25	0.0%
34	D, C	179	0.0%
35	C, C	15	0.0%
36	D, BN	100	0.0%
37	BN, AN	-41	0.0%
38	W, W	-62	0.0%
39	BN, D	72	0.0%
40	D, C	59	0.0%
41	C, C	210	0.0%
42	C, C	6	0.0%
<b>Average</b>		<b>73</b>	<b>0.0%</b>
<b>Maximum</b>		<b>496</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-230</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-82. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 19 (SR19) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	-2	0.0%
3	C, C	-39	0.0%
4	C, C	0	0.0%
5	AN, W	0	0.0%
6	BN, AN	-2	0.0%
7	AN, W	22	0.0%
8	D, D	0	0.0%
9	W, W	0	0.0%
10	W, W	0	0.0%
11	W, AN	74	0.0%
12	D, D	-26	0.0%
13	W, W	-30	0.0%
14	D, D	-13	0.0%
15	C, C	64	0.0%
16	D, C	27	0.0%
17	C, C	0	0.0%
18	C, C	28	0.0%
19	C, C	0	0.0%
20	AN, W	0	0.0%
21	C, C	0	0.0%
22	W, W	0	0.0%
23	W, W	30	0.0%
24	W, W	176	0.1%
25	W, W	23	0.0%
26	W, AN	-19	0.0%
27	AN, AN	16	0.0%
28	D, D	26	0.0%
29	D, D	-33	0.0%
30	AN, BN	0	0.0%
31	BN, D	0	0.0%
32	AN, W	-13	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
33	W, W	-9	0.0%
34	D, C	-18	0.0%
35	C, C	8	0.0%
36	D, BN	0	0.0%
37	BN, AN	0	0.0%
38	W, W	0	0.0%
39	BN, D	-5	0.0%
40	D, C	0	0.0%
41	C, C	-43	0.0%
42	C, C	0	0.0%
<b>Average</b>		<b>6</b>	<b>0.0%</b>
<b>Maximum</b>		<b>176</b>	<b>0.1%</b>
<b>Minimum</b>		<b>-43</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-83. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 20 (SR20) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	0	0.0%
3	C, C	-38	0.0%
4	C, C	10	0.0%
5	AN, W	0	0.0%
6	BN, AN	-19	0.0%
7	AN, W	0	0.0%
8	D, D	0	0.0%
9	W, W	0	0.0%
10	W, W	0	0.0%
11	W, AN	0	0.0%
12	D, D	-12	0.0%
13	W, W	0	0.0%
14	D, D	0	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
15	C, C	-165	0.0%
16	D, C	35	0.0%
17	C, C	-143	0.0%
18	C, C	1	0.0%
19	C, C	66	0.0%
20	AN, W	-26	0.0%
21	C, C	-16	0.0%
22	W, W	-20	0.0%
23	W, W	8	0.0%
24	W, W	4	0.0%
25	W, W	0	0.0%
26	W, AN	0	0.0%
27	AN, AN	-17	0.0%
28	D, D	0	0.0%
29	D, D	-41	0.0%
30	AN, BN	1	0.0%
31	BN, D	72	0.0%
32	AN, W	110	0.0%
33	W, W	-143	0.0%
34	D, C	1	0.0%
35	C, C	22	0.0%
36	D, BN	-26	0.0%
37	BN, AN	17	0.0%
38	W, W	2	0.0%
39	BN, D	-8	0.0%
40	D, C	1	0.0%
41	C, C	4	0.0%
42	C, C	-4	0.0%
<b>Average</b>		<b>-8</b>	<b>0.0%</b>
<b>Maximum</b>		<b>110</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-165</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-84. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 21 (SR21) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	-16	0.0%
2	W, W	-4	0.0%
3	C, C	-164	0.0%
4	C, C	-52	0.0%
5	AN, W	-40	0.0%
6	BN, AN	-39	0.0%
7	AN, W	-14	0.0%
8	D, D	31	0.0%
9	W, W	29	0.0%
10	W, W	-107	0.0%
11	W, AN	-63	0.0%
12	D, D	-1	0.0%
13	W, W	0	0.0%
14	D, D	20	0.0%
15	C, C	93	0.0%
16	D, C	80	0.0%
17	C, C	-76	0.0%
18	C, C	96	0.0%
19	C, C	-101	0.0%
20	AN, W	123	0.0%
21	C, C	-102	0.0%
22	W, W	0	0.0%
23	W, W	44	0.0%
24	W, W	53	0.0%
25	W, W	15	0.0%
26	W, AN	36	0.0%
27	AN, AN	85	0.0%
28	D, D	-60	0.0%
29	D, D	-93	0.0%
30	AN, BN	-40	0.0%
31	BN, D	-99	0.0%
32	AN, W	30	0.0%
33	W, W	37	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
34	D, C	-34	0.0%
35	C, C	41	0.0%
36	D, BN	33	0.0%
37	BN, AN	47	0.0%
38	W, W	129	0.0%
39	BN, D	-52	0.0%
40	D, C	-35	0.0%
41	C, C	-1	0.0%
42	C, C	1	0.0%
<b>Average</b>		<b>-4</b>	<b>0.0%</b>
<b>Maximum</b>		<b>129</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-164</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

### I-1.1.5 Changes in Groundwater Pumping, Alternative 2 without TUCP Delta VA Compared to No Action Alternative

Table I.1-85 through Table I.1-105 provide the annual simulated groundwater pumping through the model simulation period for each of the 21 model subregions for Alternative 2 without TUCP Delta VA compared to the No Action Alternative.

Table I.1-85. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 1 (SR1) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	-39	-0.1%
2	W, W	-38	-0.1%
3	C, C	1,024	1.7%
4	C, C	6,507	8.5%
5	AN, W	65	0.1%
6	BN, AN	491	0.8%
7	AN, W	112	0.2%
8	D, D	168	0.3%
9	W, W	-65	-0.1%
10	W, W	97	0.2%
11	W, AN	-52	-0.1%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
12	D, D	319	0.5%
13	W, W	-29	0.0%
14	D, D	1,913	2.7%
15	C, C	3,718	4.9%
16	D, C	852	1.2%
17	C, C	-2,700	-3.8%
18	C, C	4,525	5.5%
19	C, C	2,168	2.5%
20	AN, W	365	0.6%
21	C, C	4,625	6.5%
22	W, W	1,371	2.2%
23	W, W	42	0.1%
24	W, W	58	0.1%
25	W, W	-18	0.0%
26	W, AN	-95	-0.2%
27	AN, AN	-40	-0.1%
28	D, D	242	0.4%
29	D, D	-79	-0.1%
30	AN, BN	-74	-0.1%
31	BN, D	19	0.0%
32	AN, W	-37	-0.1%
33	W, W	-47	-0.1%
34	D, C	91	0.1%
35	C, C	1,204	1.7%
36	D, BN	-667	-1.0%
37	BN, AN	-260	-0.4%
38	W, W	-3	0.0%
39	BN, D	-24	0.0%
40	D, C	3,362	4.8%
41	C, C	7,570	8.8%
42	C, C	174	0.2%
<b>Average</b>		<b>876</b>	<b>1.2%</b>
<b>Maximum</b>		<b>7,570</b>	<b>8.8%</b>
<b>Minimum</b>		<b>-2,700</b>	<b>-3.8%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-86. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 2 (SR2) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	74	0.0%
2	W, W	102	0.0%
3	C, C	2,942	0.5%
4	C, C	4,687	0.7%
5	AN, W	744	0.1%
6	BN, AN	1,072	0.2%
7	AN, W	117	0.0%
8	D, D	1,768	0.3%
9	W, W	238	0.1%
10	W, W	-172	0.0%
11	W, AN	-74	0.0%
12	D, D	740	0.1%
13	W, W	422	0.1%
14	D, D	4,266	0.7%
15	C, C	10,717	1.7%
16	D, C	3,447	0.6%
17	C, C	-2,560	-0.5%
18	C, C	4,498	0.8%
19	C, C	736	0.1%
20	AN, W	54	0.0%
21	C, C	12,500	2.2%
22	W, W	3,547	0.7%
23	W, W	-49	0.0%
24	W, W	-127	0.0%
25	W, W	-142	0.0%
26	W, AN	39	0.0%
27	AN, AN	-120	0.0%
28	D, D	1,345	0.3%
29	D, D	33	0.0%
30	AN, BN	-139	0.0%
31	BN, D	-894	-0.2%
32	AN, W	-57	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
33	W, W	-54	0.0%
34	D, C	200	0.0%
35	C, C	2,556	0.4%
36	D, BN	-1,382	-0.2%
37	BN, AN	-325	-0.1%
38	W, W	-49	0.0%
39	BN, D	-84	0.0%
40	D, C	6,828	1.1%
41	C, C	5,771	0.9%
42	C, C	4,963	0.8%
<b>Average</b>		<b>1,623</b>	<b>0.3%</b>
<b>Maximum</b>		<b>12,500</b>	<b>2.2%</b>
<b>Minimum</b>		<b>-2,560</b>	<b>-0.5%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-87. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 3 (SR3) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	-3,144	-1.1%
2	W, W	-1,933	-0.6%
3	C, C	13,760	3.0%
4	C, C	73,377	12.7%
5	AN, W	2,295	0.6%
6	BN, AN	3,583	0.9%
7	AN, W	-2,015	-0.6%
8	D, D	-2,348	-0.7%
9	W, W	-2,088	-0.8%
10	W, W	-2,731	-1.1%
11	W, AN	-2,885	-0.9%
12	D, D	1,256	0.3%
13	W, W	3,791	1.1%
14	D, D	21,220	5.0%
15	C, C	52,499	11.8%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
16	D, C	11,952	3.0%
17	C, C	-30,328	-6.4%
18	C, C	80,279	15.1%
19	C, C	-4,699	-0.8%
20	AN, W	-678	-0.2%
21	C, C	63,401	15.8%
22	W, W	12,814	4.0%
23	W, W	-3,027	-1.0%
24	W, W	-3,121	-1.0%
25	W, W	-3,090	-1.4%
26	W, AN	-2,577	-0.9%
27	AN, AN	-2,866	-1.0%
28	D, D	4,957	1.3%
29	D, D	-5,122	-1.4%
30	AN, BN	-3,725	-1.2%
31	BN, D	-15,682	-4.6%
32	AN, W	-3,833	-1.4%
33	W, W	-3,149	-1.1%
34	D, C	131	0.0%
35	C, C	11,715	2.8%
36	D, BN	-10,294	-2.3%
37	BN, AN	-3,618	-1.3%
38	W, W	-3,250	-1.2%
39	BN, D	-3,840	-1.1%
40	D, C	32,458	8.0%
41	C, C	84,565	14.6%
42	C, C	1,968	0.3%
<b>Average</b>		<b>8,476</b>	<b>1.6%</b>
<b>Maximum</b>		<b>84,565</b>	<b>15.8%</b>
<b>Minimum</b>		<b>-30,328</b>	<b>-6.4%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-88. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 4 (SR4) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	-8,647	-2.6%
2	W, W	-8,692	-2.5%
3	C, C	-9,196	-2.5%
4	C, C	31,847	8.5%
5	AN, W	-7,170	-2.1%
6	BN, AN	-7,533	-2.2%
7	AN, W	-11,773	-3.6%
8	D, D	-9,764	-2.8%
9	W, W	1,852	0.6%
10	W, W	-9,775	-3.1%
11	W, AN	-8,853	-2.6%
12	D, D	-9,917	-2.8%
13	W, W	-8,456	-2.5%
14	D, D	-9,172	-2.5%
15	C, C	-8,326	-2.4%
16	D, C	-9,984	-2.8%
17	C, C	-14,426	-4.5%
18	C, C	30,399	9.2%
19	C, C	-9,455	-2.7%
20	AN, W	-7,898	-2.4%
21	C, C	-10,531	-3.1%
22	W, W	-8,913	-2.7%
23	W, W	-9,192	-2.7%
24	W, W	-9,026	-2.8%
25	W, W	-8,587	-2.7%
26	W, AN	-8,735	-2.7%
27	AN, AN	-6,575	-2.0%
28	D, D	-9,388	-2.8%
29	D, D	-10,344	-3.1%
30	AN, BN	-8,400	-2.5%
31	BN, D	-10,572	-3.1%
32	AN, W	-8,750	-2.7%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
33	W, W	-9,777	-3.0%
34	D, C	-10,871	-3.0%
35	C, C	-10,870	-3.2%
36	D, BN	-10,953	-3.0%
37	BN, AN	-9,002	-2.8%
38	W, W	-8,869	-2.7%
39	BN, D	-8,913	-2.6%
40	D, C	-9,069	-2.5%
41	C, C	35,629	9.4%
42	C, C	-6,690	-1.8%
<b>Average</b>		<b>-6,032</b>	<b>-1.8%</b>
<b>Maximum</b>		<b>35,629</b>	<b>9.4%</b>
<b>Minimum</b>		<b>-14,426</b>	<b>-4.5%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-89. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 5 (SR5) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	-37	0.0%
2	W, W	-387	-0.1%
3	C, C	648	0.1%
4	C, C	3,709	0.6%
5	AN, W	-2,411	-0.5%
6	BN, AN	-1,082	-0.3%
7	AN, W	-173	0.0%
8	D, D	778	0.2%
9	W, W	-11	0.0%
10	W, W	-715	-0.2%
11	W, AN	-301	-0.1%
12	D, D	-632	-0.1%
13	W, W	-702	-0.2%
14	D, D	1,579	0.3%
15	C, C	3,158	0.7%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
16	D, C	-3,502	-0.8%
17	C, C	39	0.0%
18	C, C	2,888	0.6%
19	C, C	4,624	0.9%
20	AN, W	-628	-0.2%
21	C, C	4,603	1.0%
22	W, W	752	0.2%
23	W, W	-1,246	-0.3%
24	W, W	-410	-0.1%
25	W, W	-264	-0.1%
26	W, AN	382	0.1%
27	AN, AN	-120	0.0%
28	D, D	209	0.0%
29	D, D	-368	-0.1%
30	AN, BN	-553	-0.1%
31	BN, D	-516	-0.1%
32	AN, W	-204	-0.1%
33	W, W	-1,100	-0.3%
34	D, C	268	0.1%
35	C, C	801	0.2%
36	D, BN	-1,371	-0.3%
37	BN, AN	-537	-0.1%
38	W, W	-600	-0.2%
39	BN, D	-254	-0.1%
40	D, C	2,453	0.5%
41	C, C	211	0.0%
42	C, C	-332	-0.1%
<b>Average</b>		<b>206</b>	<b>0.0%</b>
<b>Maximum</b>		<b>4,624</b>	<b>1.0%</b>
<b>Minimum</b>		<b>-3,502</b>	<b>-0.8%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-90. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 6 (SR6) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	-1,746	-0.3%
2	W, W	-499	-0.1%
3	C, C	-2,277	-0.3%
4	C, C	-1,342	-0.1%
5	AN, W	-1,588	-0.2%
6	BN, AN	-2,004	-0.3%
7	AN, W	-1,881	-0.3%
8	D, D	-1,689	-0.2%
9	W, W	-311	-0.1%
10	W, W	-1,592	-0.3%
11	W, AN	-1,743	-0.2%
12	D, D	-1,867	-0.3%
13	W, W	-1,640	-0.2%
14	D, D	-3,932	-0.5%
15	C, C	-532	-0.1%
16	D, C	-4,899	-0.6%
17	C, C	-6,804	-0.9%
18	C, C	-2,820	-0.3%
19	C, C	-1,626	-0.2%
20	AN, W	-1,400	-0.2%
21	C, C	-1,963	-0.2%
22	W, W	-1,567	-0.2%
23	W, W	-1,480	-0.2%
24	W, W	-2,344	-0.3%
25	W, W	-2,189	-0.4%
26	W, AN	-3,942	-0.6%
27	AN, AN	-2,168	-0.3%
28	D, D	-2,233	-0.3%
29	D, D	-3,350	-0.5%
30	AN, BN	-4,239	-0.6%
31	BN, D	-1,454	-0.2%
32	AN, W	-1,602	-0.2%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
33	W, W	-892	-0.1%
34	D, C	-2,961	-0.4%
35	C, C	-1,475	-0.2%
36	D, BN	-19,580	-2.4%
37	BN, AN	-1,960	-0.3%
38	W, W	-1,848	-0.3%
39	BN, D	-4,808	-0.6%
40	D, C	-4,977	-0.6%
41	C, C	-3,206	-0.4%
42	C, C	-1,133	-0.1%
<b>Average</b>		<b>-2,704</b>	<b>-0.4%</b>
<b>Maximum</b>		<b>-311</b>	<b>-0.1%</b>
<b>Minimum</b>		<b>-19,580</b>	<b>-2.4%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-91. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 7 (SR7) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	778	0.2%
2	W, W	101	0.0%
3	C, C	260	0.1%
4	C, C	-12,378	-2.9%
5	AN, W	-1,980	-0.5%
6	BN, AN	1,430	0.4%
7	AN, W	118	0.0%
8	D, D	-164	0.0%
9	W, W	-744	-0.2%
10	W, W	-244	-0.1%
11	W, AN	-647	-0.2%
12	D, D	504	0.1%
13	W, W	617	0.2%
14	D, D	294	0.1%
15	C, C	-12	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
16	D, C	-62	0.0%
17	C, C	-6,579	-1.8%
18	C, C	-9,979	-2.6%
19	C, C	-2,894	-0.7%
20	AN, W	-287	-0.1%
21	C, C	738	0.2%
22	W, W	-1,160	-0.3%
23	W, W	206	0.1%
24	W, W	-260	-0.1%
25	W, W	2,524	0.7%
26	W, AN	823	0.2%
27	AN, AN	40	0.0%
28	D, D	-1,018	-0.3%
29	D, D	-555	-0.1%
30	AN, BN	-54	0.0%
31	BN, D	80	0.0%
32	AN, W	-1,442	-0.4%
33	W, W	-231	-0.1%
34	D, C	-466	-0.1%
35	C, C	337	0.1%
36	D, BN	-410	-0.1%
37	BN, AN	-190	-0.1%
38	W, W	-496	-0.1%
39	BN, D	299	0.1%
40	D, C	185	0.0%
41	C, C	-13,227	-3.2%
42	C, C	-254	-0.1%
<b>Average</b>		<b>-1,105</b>	<b>-0.3%</b>
<b>Maximum</b>		<b>2,524</b>	<b>0.7%</b>
<b>Minimum</b>		<b>-13,227</b>	<b>-3.2%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-92. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 8 (SR8) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	-295	0.0%
2	W, W	-113	0.0%
3	C, C	-500	0.0%
4	C, C	-362	0.0%
5	AN, W	-21	0.0%
6	BN, AN	-500	-0.1%
7	AN, W	388	0.0%
8	D, D	-124	0.0%
9	W, W	129	0.0%
10	W, W	-24	0.0%
11	W, AN	-124	0.0%
12	D, D	42	0.0%
13	W, W	-120	0.0%
14	D, D	-92	0.0%
15	C, C	-15	0.0%
16	D, C	-104	0.0%
17	C, C	65	0.0%
18	C, C	-21	0.0%
19	C, C	100	0.0%
20	AN, W	-78	0.0%
21	C, C	-1,196	-0.1%
22	W, W	77	0.0%
23	W, W	18	0.0%
24	W, W	-1,110	-0.1%
25	W, W	-20	0.0%
26	W, AN	71	0.0%
27	AN, AN	-153	0.0%
28	D, D	-389	0.0%
29	D, D	202	0.0%
30	AN, BN	19	0.0%
31	BN, D	344	0.0%
32	AN, W	-173	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
33	W, W	-1,342	-0.2%
34	D, C	112	0.0%
35	C, C	91	0.0%
36	D, BN	136	0.0%
37	BN, AN	-8	0.0%
38	W, W	-43	0.0%
39	BN, D	503	0.0%
40	D, C	363	0.0%
41	C, C	73	0.0%
42	C, C	-298	0.0%
<b>Average</b>		<b>-107</b>	<b>0.0%</b>
<b>Maximum</b>		<b>503</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-1,342</b>	<b>-0.2%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-93. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 9 (SR9) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	299	0.1%
2	W, W	1,498	0.3%
3	C, C	1,854	0.4%
4	C, C	690	0.1%
5	AN, W	1,922	0.4%
6	BN, AN	1,544	0.3%
7	AN, W	1,654	0.3%
8	D, D	3,031	0.6%
9	W, W	746	0.2%
10	W, W	336	0.1%
11	W, AN	-791	-0.1%
12	D, D	2,634	0.5%
13	W, W	595	0.1%
14	D, D	2,296	0.4%
15	C, C	2,856	0.5%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
16	D, C	3,031	0.5%
17	C, C	-1,412	-0.3%
18	C, C	-1,436	-0.3%
19	C, C	-1,436	-0.3%
20	AN, W	-1,914	-0.4%
21	C, C	3,349	0.6%
22	W, W	1,027	0.2%
23	W, W	273	0.1%
24	W, W	-3,027	-0.6%
25	W, W	13	0.0%
26	W, AN	-244	-0.1%
27	AN, AN	2,762	0.5%
28	D, D	3,075	0.6%
29	D, D	2,965	0.6%
30	AN, BN	673	0.1%
31	BN, D	1,807	0.3%
32	AN, W	1,484	0.3%
33	W, W	-256	-0.1%
34	D, C	2,204	0.4%
35	C, C	3,181	0.6%
36	D, BN	2,316	0.4%
37	BN, AN	2,469	0.5%
38	W, W	48	0.0%
39	BN, D	703	0.1%
40	D, C	3,184	0.6%
41	C, C	235	0.0%
42	C, C	-1,154	-0.2%
<b>Average</b>		<b>1,073</b>	<b>0.2%</b>
<b>Maximum</b>		<b>3,349</b>	<b>0.6%</b>
<b>Minimum</b>		<b>-3,027</b>	<b>-0.6%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-94. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 10 (SR10) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	21	0.0%
2	W, W	25,389	6.9%
3	C, C	17,472	3.4%
4	C, C	-97,765	-12.1%
5	AN, W	25,616	6.9%
6	BN, AN	16,054	4.0%
7	AN, W	28,778	9.5%
8	D, D	35,944	8.1%
9	W, W	2,945	1.0%
10	W, W	-313	-0.1%
11	W, AN	-7,139	-2.3%
12	D, D	32,332	7.2%
13	W, W	9,051	2.9%
14	D, D	29,875	6.6%
15	C, C	33,948	6.5%
16	D, C	26,411	4.9%
17	C, C	-17,427	-2.8%
18	C, C	-21,684	-2.8%
19	C, C	-12,634	-1.7%
20	AN, W	-6,573	-1.6%
21	C, C	39,682	7.2%
22	W, W	10,064	3.0%
23	W, W	1,698	0.5%
24	W, W	-9,602	-3.1%
25	W, W	300	0.1%
26	W, AN	-2,970	-1.1%
27	AN, AN	38,667	9.8%
28	D, D	36,093	7.8%
29	D, D	33,586	7.2%
30	AN, BN	15,602	3.6%
31	BN, D	30,632	6.5%
32	AN, W	17,796	5.9%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
33	W, W	-2,704	-0.9%
34	D, C	25,296	6.1%
35	C, C	39,700	8.2%
36	D, BN	28,746	5.1%
37	BN, AN	27,441	6.4%
38	W, W	2,414	0.8%
39	BN, D	4,736	1.2%
40	D, C	32,820	7.3%
41	C, C	-64,060	-8.3%
42	C, C	-14,562	-2.0%
<b>Average</b>		<b>9,802</b>	<b>2.8%</b>
<b>Maximum</b>		<b>39,700</b>	<b>9.8%</b>
<b>Minimum</b>		<b>-97,765</b>	<b>-12.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-95. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 11 (SR11) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	-12	0.0%
2	W, W	-66	0.0%
3	C, C	-3,196	-0.8%
4	C, C	-35	0.0%
5	AN, W	-13	0.0%
6	BN, AN	-6	0.0%
7	AN, W	5	0.0%
8	D, D	-3,283	-0.9%
9	W, W	-86	0.0%
10	W, W	12	0.0%
11	W, AN	24	0.0%
12	D, D	-9	0.0%
13	W, W	31	0.0%
14	D, D	-24	0.0%
15	C, C	-65	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
16	D, C	-61	0.0%
17	C, C	-140	0.0%
18	C, C	177	0.0%
19	C, C	-13	0.0%
20	AN, W	-3,529	-1.0%
21	C, C	355	0.1%
22	W, W	372	0.1%
23	W, W	21	0.0%
24	W, W	9,675	3.0%
25	W, W	7,614	3.1%
26	W, AN	43	0.0%
27	AN, AN	11	0.0%
28	D, D	146	0.0%
29	D, D	84	0.0%
30	AN, BN	114	0.0%
31	BN, D	13	0.0%
32	AN, W	12,283	4.6%
33	W, W	184	0.1%
34	D, C	3	0.0%
35	C, C	-22	0.0%
36	D, BN	-23	0.0%
37	BN, AN	-82	0.0%
38	W, W	41	0.0%
39	BN, D	-146	0.0%
40	D, C	276	0.1%
41	C, C	-296	-0.1%
42	C, C	-106	0.0%
<b>Average</b>		<b>483</b>	<b>0.2%</b>
<b>Maximum</b>		<b>12,283</b>	<b>4.6%</b>
<b>Minimum</b>		<b>-3,529</b>	<b>-1.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-96. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 12 (SR12) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	95	0.0%
2	W, W	215	0.1%
3	C, C	-79	0.0%
4	C, C	-18	0.0%
5	AN, W	-37	0.0%
6	BN, AN	-16	0.0%
7	AN, W	56	0.0%
8	D, D	12	0.0%
9	W, W	32	0.0%
10	W, W	-144	0.0%
11	W, AN	-9	0.0%
12	D, D	-270	0.0%
13	W, W	138	0.0%
14	D, D	-4	0.0%
15	C, C	-225	0.0%
16	D, C	308	0.0%
17	C, C	-276	0.0%
18	C, C	-95	0.0%
19	C, C	-44	0.0%
20	AN, W	-10,489	-1.7%
21	C, C	2,601	0.4%
22	W, W	1,174	0.3%
23	W, W	-18	0.0%
24	W, W	-29	0.0%
25	W, W	-85	0.0%
26	W, AN	2	0.0%
27	AN, AN	69	0.0%
28	D, D	-97	0.0%
29	D, D	13	0.0%
30	AN, BN	122	0.0%
31	BN, D	16	0.0%
32	AN, W	74	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
33	W, W	0	0.0%
34	D, C	25	0.0%
35	C, C	25	0.0%
36	D, BN	-63	0.0%
37	BN, AN	86	0.0%
38	W, W	43	0.0%
39	BN, D	-228	0.0%
40	D, C	-48	0.0%
41	C, C	-244	0.0%
42	C, C	-197	0.0%
<b>Average</b>		<b>-181</b>	<b>0.0%</b>
<b>Maximum</b>		<b>2,601</b>	<b>0.4%</b>
<b>Minimum</b>		<b>-10,489</b>	<b>-1.7%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-97. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 13 (SR13) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	354	0.0%
2	W, W	-165	0.0%
3	C, C	-400	0.0%
4	C, C	-9,567	-0.4%
5	AN, W	-12,283	-0.7%
6	BN, AN	110	0.0%
7	AN, W	-264	0.0%
8	D, D	196	0.0%
9	W, W	191	0.0%
10	W, W	-161	0.0%
11	W, AN	3,665	0.2%
12	D, D	-4,017	-0.2%
13	W, W	76	0.0%
14	D, D	-230	0.0%
15	C, C	-1,060	-0.1%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
16	D, C	-108	0.0%
17	C, C	-886	0.0%
18	C, C	-1,249	-0.1%
19	C, C	-199	0.0%
20	AN, W	-500	0.0%
21	C, C	248	0.0%
22	W, W	442	0.0%
23	W, W	281	0.0%
24	W, W	309	0.0%
25	W, W	-150	0.0%
26	W, AN	-55	0.0%
27	AN, AN	-269	0.0%
28	D, D	-138	0.0%
29	D, D	-733	0.0%
30	AN, BN	225	0.0%
31	BN, D	-707	0.0%
32	AN, W	-595	0.0%
33	W, W	-366	0.0%
34	D, C	-879	0.0%
35	C, C	-704	0.0%
36	D, BN	-798	0.0%
37	BN, AN	-522	0.0%
38	W, W	-52	0.0%
39	BN, D	-1,163	-0.1%
40	D, C	-932	0.0%
41	C, C	-7,250	-0.3%
42	C, C	-2,192	-0.1%
<b>Average</b>		<b>-1,012</b>	<b>0.0%</b>
<b>Maximum</b>		<b>3,665</b>	<b>0.2%</b>
<b>Minimum</b>		<b>-12,283</b>	<b>-0.7%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-98. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 14 (SR14) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	15,412	7.1%
2	W, W	36,872	11.0%
3	C, C	60,284	9.2%
4	C, C	23,034	1.8%
5	AN, W	69,555	17.9%
6	BN, AN	40,215	8.4%
7	AN, W	59,205	24.2%
8	D, D	85,950	18.4%
9	W, W	26,970	9.2%
10	W, W	11,107	6.5%
11	W, AN	5,544	2.9%
12	D, D	81,660	16.3%
13	W, W	17,166	6.8%
14	D, D	88,330	17.4%
15	C, C	102,784	14.2%
16	D, C	62,958	8.4%
17	C, C	-50,370	-4.6%
18	C, C	-24,987	-1.9%
19	C, C	-37,233	-2.8%
20	AN, W	-30,143	-4.9%
21	C, C	126,043	15.6%
22	W, W	40,194	11.6%
23	W, W	23,132	8.3%
24	W, W	-23,965	-9.1%
25	W, W	12,667	6.0%
26	W, AN	11,544	4.8%
27	AN, AN	97,614	16.6%
28	D, D	87,230	11.5%
29	D, D	87,403	11.0%
30	AN, BN	76,259	11.8%
31	BN, D	120,898	16.8%
32	AN, W	39,067	11.2%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
33	W, W	13,201	6.0%
34	D, C	73,338	12.3%
35	C, C	103,408	11.9%
36	D, BN	90,025	7.5%
37	BN, AN	71,666	8.9%
38	W, W	8,674	3.0%
39	BN, D	3,096	0.7%
40	D, C	82,236	10.6%
41	C, C	35,751	2.9%
42	C, C	-39,982	-2.9%
<b>Average</b>		<b>42,472</b>	<b>8.2%</b>
<b>Maximum</b>		<b>126,043</b>	<b>24.2%</b>
<b>Minimum</b>		<b>-50,370</b>	<b>-9.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-99. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 15 (SR15) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	-866	-0.1%
2	W, W	6,951	0.5%
3	C, C	-27,426	-1.5%
4	C, C	-15,149	-0.8%
5	AN, W	3,995	0.3%
6	BN, AN	9,205	0.7%
7	AN, W	6,594	0.5%
8	D, D	7,103	0.4%
9	W, W	-5,309	-0.5%
10	W, W	-136	0.0%
11	W, AN	-365	0.0%
12	D, D	7,094	0.4%
13	W, W	1,978	0.2%
14	D, D	3,230	0.2%
15	C, C	3,278	0.2%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
16	D, C	8,547	0.5%
17	C, C	-12,630	-0.7%
18	C, C	-2,205	-0.1%
19	C, C	-1,518	-0.1%
20	AN, W	1,783	0.1%
21	C, C	7,532	0.5%
22	W, W	-84	0.0%
23	W, W	-8,014	-0.6%
24	W, W	-3,143	-0.2%
25	W, W	-639	-0.1%
26	W, AN	1,547	0.1%
27	AN, AN	2,645	0.2%
28	D, D	13,756	0.9%
29	D, D	4,212	0.2%
30	AN, BN	6,834	0.4%
31	BN, D	-731	0.0%
32	AN, W	1,623	0.1%
33	W, W	3,758	0.3%
34	D, C	992	0.1%
35	C, C	7,317	0.4%
36	D, BN	18,795	1.1%
37	BN, AN	4,845	0.3%
38	W, W	-5,820	-0.5%
39	BN, D	1,361	0.1%
40	D, C	2,791	0.1%
41	C, C	-3,536	-0.2%
42	C, C	-4,974	-0.3%
<b>Average</b>		<b>1,077</b>	<b>0.1%</b>
<b>Maximum</b>		<b>18,795</b>	<b>1.1%</b>
<b>Minimum</b>		<b>-27,426</b>	<b>-1.5%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-100. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 16 (SR16) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	0	0.0%
3	C, C	33	0.0%
4	C, C	96	0.0%
5	AN, W	-14	0.0%
6	BN, AN	0	0.0%
7	AN, W	1	0.0%
8	D, D	0	0.0%
9	W, W	-3	0.0%
10	W, W	0	0.0%
11	W, AN	7	0.0%
12	D, D	-10	0.0%
13	W, W	135	0.1%
14	D, D	11	0.0%
15	C, C	28	0.0%
16	D, C	-28	0.0%
17	C, C	-84	0.0%
18	C, C	28	0.0%
19	C, C	-50	0.0%
20	AN, W	-99	-0.1%
21	C, C	-19	0.0%
22	W, W	27	0.0%
23	W, W	0	0.0%
24	W, W	14	0.0%
25	W, W	0	0.0%
26	W, AN	0	0.0%
27	AN, AN	-5	0.0%
28	D, D	-16	0.0%
29	D, D	-36	0.0%
30	AN, BN	117	0.1%
31	BN, D	6	0.0%
32	AN, W	0	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
33	W, W	39	0.1%
34	D, C	-37	0.0%
35	C, C	61	0.0%
36	D, BN	59	0.0%
37	BN, AN	-5	0.0%
38	W, W	0	0.0%
39	BN, D	1	0.0%
40	D, C	56	0.0%
41	C, C	78	0.0%
42	C, C	2	0.0%
<b>Average</b>		<b>9</b>	<b>0.0%</b>
<b>Maximum</b>		<b>135</b>	<b>0.1%</b>
<b>Minimum</b>		<b>-99</b>	<b>-0.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-101. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 17 (SR17) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	-4	0.0%
2	W, W	-70	0.0%
3	C, C	-7	0.0%
4	C, C	18	0.0%
5	AN, W	-8	0.0%
6	BN, AN	-24	0.0%
7	AN, W	-40	0.0%
8	D, D	-24	0.0%
9	W, W	-19	0.0%
10	W, W	5	0.0%
11	W, AN	146	0.1%
12	D, D	-91	0.0%
13	W, W	-126	-0.1%
14	D, D	134	0.0%
15	C, C	-72	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
16	D, C	3	0.0%
17	C, C	-17	0.0%
18	C, C	101	0.0%
19	C, C	-3	0.0%
20	AN, W	25	0.0%
21	C, C	-1	0.0%
22	W, W	-33	0.0%
23	W, W	-48	0.0%
24	W, W	75	0.0%
25	W, W	-23	0.0%
26	W, AN	51	0.0%
27	AN, AN	-30	0.0%
28	D, D	27	0.0%
29	D, D	-319	-0.1%
30	AN, BN	65	0.0%
31	BN, D	64	0.0%
32	AN, W	107	0.0%
33	W, W	-72	0.0%
34	D, C	-144	0.0%
35	C, C	27	0.0%
36	D, BN	2	0.0%
37	BN, AN	76	0.0%
38	W, W	17	0.0%
39	BN, D	43	0.0%
40	D, C	-24	0.0%
41	C, C	54	0.0%
42	C, C	17	0.0%
<b>Average</b>		<b>-3</b>	<b>0.0%</b>
<b>Maximum</b>		<b>146</b>	<b>0.1%</b>
<b>Minimum</b>		<b>-319</b>	<b>-0.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-102. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 18 (SR18) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	-86	0.0%
2	W, W	-107	0.0%
3	C, C	314	0.0%
4	C, C	1,577	0.1%
5	AN, W	374	0.0%
6	BN, AN	124	0.0%
7	AN, W	-94	0.0%
8	D, D	231	0.0%
9	W, W	220	0.0%
10	W, W	-3	0.0%
11	W, AN	4,734	0.4%
12	D, D	-4,331	-0.3%
13	W, W	-493	0.0%
14	D, D	284	0.0%
15	C, C	1,375	0.1%
16	D, C	444	0.0%
17	C, C	148	0.0%
18	C, C	431	0.0%
19	C, C	241	0.0%
20	AN, W	-65	0.0%
21	C, C	1,352	0.1%
22	W, W	-8	0.0%
23	W, W	-204	0.0%
24	W, W	-27	0.0%
25	W, W	-61	0.0%
26	W, AN	-122	0.0%
27	AN, AN	-191	0.0%
28	D, D	137	0.0%
29	D, D	-751	0.0%
30	AN, BN	-310	0.0%
31	BN, D	259	0.0%
32	AN, W	21	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
33	W, W	-157	0.0%
34	D, C	362	0.0%
35	C, C	8	0.0%
36	D, BN	166	0.0%
37	BN, AN	-64	0.0%
38	W, W	-109	0.0%
39	BN, D	353	0.0%
40	D, C	-8	0.0%
41	C, C	139	0.0%
42	C, C	1,388	0.1%
<b>Average</b>		<b>178</b>	<b>0.0%</b>
<b>Maximum</b>		<b>4,734</b>	<b>0.4%</b>
<b>Minimum</b>		<b>-4,331</b>	<b>-0.3%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-103. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 19 (SR19) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	-33	0.0%
2	W, W	-1	0.0%
3	C, C	0	0.0%
4	C, C	0	0.0%
5	AN, W	0	0.0%
6	BN, AN	-1	0.0%
7	AN, W	22	0.0%
8	D, D	0	0.0%
9	W, W	0	0.0%
10	W, W	0	0.0%
11	W, AN	29	0.0%
12	D, D	-22	0.0%
13	W, W	-1	0.0%
14	D, D	43	0.0%
15	C, C	90	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
16	D, C	-42	0.0%
17	C, C	-32	0.0%
18	C, C	37	0.0%
19	C, C	0	0.0%
20	AN, W	-51	0.0%
21	C, C	0	0.0%
22	W, W	-35	0.0%
23	W, W	-62	0.0%
24	W, W	204	0.1%
25	W, W	-24	0.0%
26	W, AN	0	0.0%
27	AN, AN	40	0.0%
28	D, D	26	0.0%
29	D, D	10	0.0%
30	AN, BN	0	0.0%
31	BN, D	0	0.0%
32	AN, W	0	0.0%
33	W, W	-9	0.0%
34	D, C	0	0.0%
35	C, C	0	0.0%
36	D, BN	0	0.0%
37	BN, AN	0	0.0%
38	W, W	0	0.0%
39	BN, D	0	0.0%
40	D, C	6	0.0%
41	C, C	0	0.0%
42	C, C	0	0.0%
<b>Average</b>		<b>5</b>	<b>0.0%</b>
<b>Maximum</b>		<b>204</b>	<b>0.1%</b>
<b>Minimum</b>		<b>-62</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-104. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 20 (SR20) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	0	0.0%
3	C, C	0	0.0%
4	C, C	-20	0.0%
5	AN, W	2	0.0%
6	BN, AN	-1	0.0%
7	AN, W	-128	0.0%
8	D, D	0	0.0%
9	W, W	0	0.0%
10	W, W	0	0.0%
11	W, AN	-10	0.0%
12	D, D	-1	0.0%
13	W, W	0	0.0%
14	D, D	0	0.0%
15	C, C	-20	0.0%
16	D, C	107	0.0%
17	C, C	36	0.0%
18	C, C	0	0.0%
19	C, C	8	0.0%
20	AN, W	-134	0.0%
21	C, C	56	0.0%
22	W, W	-3	0.0%
23	W, W	-3	0.0%
24	W, W	-2	0.0%
25	W, W	0	0.0%
26	W, AN	0	0.0%
27	AN, AN	0	0.0%
28	D, D	0	0.0%
29	D, D	-4	0.0%
30	AN, BN	-2	0.0%
31	BN, D	37	0.0%
32	AN, W	159	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
33	W, W	-180	0.0%
34	D, C	16	0.0%
35	C, C	19	0.0%
36	D, BN	-15	0.0%
37	BN, AN	16	0.0%
38	W, W	0	0.0%
39	BN, D	-1	0.0%
40	D, C	-1	0.0%
41	C, C	15	0.0%
42	C, C	-1	0.0%
<b>Average</b>		<b>-1</b>	<b>0.0%</b>
<b>Maximum</b>		<b>159</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-180</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-105. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 21 (SR21) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	-7	0.0%
2	W, W	-38	0.0%
3	C, C	-96	0.0%
4	C, C	32	0.0%
5	AN, W	-217	0.0%
6	BN, AN	24	0.0%
7	AN, W	12	0.0%
8	D, D	16	0.0%
9	W, W	-41	0.0%
10	W, W	-35	0.0%
11	W, AN	8	0.0%
12	D, D	-71	0.0%
13	W, W	-76	0.0%
14	D, D	72	0.0%
15	C, C	81	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
16	D, C	18	0.0%
17	C, C	-93	0.0%
18	C, C	26	0.0%
19	C, C	136	0.0%
20	AN, W	-66	0.0%
21	C, C	-35	0.0%
22	W, W	-12	0.0%
23	W, W	43	0.0%
24	W, W	53	0.0%
25	W, W	16	0.0%
26	W, AN	66	0.0%
27	AN, AN	101	0.0%
28	D, D	0	0.0%
29	D, D	-101	0.0%
30	AN, BN	-32	0.0%
31	BN, D	1	0.0%
32	AN, W	20	0.0%
33	W, W	18	0.0%
34	D, C	-12	0.0%
35	C, C	-9	0.0%
36	D, BN	29	0.0%
37	BN, AN	-60	0.0%
38	W, W	135	0.0%
39	BN, D	-71	0.0%
40	D, C	-10	0.0%
41	C, C	6	0.0%
42	C, C	3	0.0%
<b>Average</b>		<b>-4</b>	<b>0.0%</b>
<b>Maximum</b>		<b>136</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-217</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

**I-1.1.6 Changes in Groundwater Pumping, Alternative 2 without TUCP Systemwide VA Compared to No Action Alternative**

Table I.1-106 through Table I.1-126 provide the annual simulated groundwater pumping through the model simulation period for each of the 21 model subregions for Alternative 2 without TUCP Systemwide VA compared to the No Action Alternative.

Table I.1-106. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 1 (SR1) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	-174	-0.3%
2	W, W	-44	-0.1%
3	C, C	810	1.3%
4	C, C	6,597	8.6%
5	AN, W	24	0.0%
6	BN, AN	696	1.1%
7	AN, W	175	0.3%
8	D, D	15	0.0%
9	W, W	-97	-0.2%
10	W, W	112	0.2%
11	W, AN	111	0.2%
12	D, D	179	0.3%
13	W, W	-88	-0.1%
14	D, D	1,896	2.6%
15	C, C	3,758	5.0%
16	D, C	888	1.3%
17	C, C	-2,685	-3.8%
18	C, C	4,550	5.5%
19	C, C	2,224	2.5%
20	AN, W	194	0.3%
21	C, C	4,433	6.2%
22	W, W	918	1.4%
23	W, W	-112	-0.2%
24	W, W	-80	-0.1%
25	W, W	-132	-0.2%
26	W, AN	-154	-0.3%
27	AN, AN	14	0.0%
28	D, D	124	0.2%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
29	D, D	80	0.1%
30	AN, BN	52	0.1%
31	BN, D	9	0.0%
32	AN, W	-177	-0.3%
33	W, W	-57	-0.1%
34	D, C	94	0.1%
35	C, C	915	1.3%
36	D, BN	-1,482	-2.2%
37	BN, AN	-366	-0.6%
38	W, W	26	0.0%
39	BN, D	-35	-0.1%
40	D, C	3,365	4.8%
41	C, C	7,548	8.8%
42	C, C	202	0.2%
<b>Average</b>		<b>817</b>	<b>1.1%</b>
<b>Maximum</b>		<b>7,548</b>	<b>8.8%</b>
<b>Minimum</b>		<b>-2,685</b>	<b>-3.8%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-107. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 2 (SR2) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	58	0.0%
2	W, W	136	0.0%
3	C, C	2,695	0.5%
4	C, C	4,586	0.7%
5	AN, W	734	0.1%
6	BN, AN	1,635	0.3%
7	AN, W	231	0.0%
8	D, D	1,245	0.2%
9	W, W	106	0.0%
10	W, W	-167	0.0%
11	W, AN	-83	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
12	D, D	751	0.1%
13	W, W	394	0.1%
14	D, D	4,511	0.8%
15	C, C	10,748	1.7%
16	D, C	3,915	0.7%
17	C, C	-2,531	-0.5%
18	C, C	4,498	0.8%
19	C, C	734	0.1%
20	AN, W	74	0.0%
21	C, C	12,004	2.2%
22	W, W	3,338	0.7%
23	W, W	-55	0.0%
24	W, W	-126	0.0%
25	W, W	-142	0.0%
26	W, AN	40	0.0%
27	AN, AN	-58	0.0%
28	D, D	660	0.1%
29	D, D	-505	-0.1%
30	AN, BN	-108	0.0%
31	BN, D	-477	-0.1%
32	AN, W	58	0.0%
33	W, W	-62	0.0%
34	D, C	228	0.0%
35	C, C	2,021	0.4%
36	D, BN	-3,158	-0.5%
37	BN, AN	-574	-0.1%
38	W, W	-42	0.0%
39	BN, D	-50	0.0%
40	D, C	6,910	1.1%
41	C, C	5,748	0.9%
42	C, C	4,983	0.8%
<b>Average</b>		<b>1,545</b>	<b>0.3%</b>
<b>Maximum</b>		<b>12,004</b>	<b>2.2%</b>
<b>Minimum</b>		<b>-3,158</b>	<b>-0.5%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-108. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 3 (SR3) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	-2,260	-0.8%
2	W, W	-349	-0.1%
3	C, C	13,128	2.9%
4	C, C	73,122	12.7%
5	AN, W	3,823	1.1%
6	BN, AN	8,990	2.4%
7	AN, W	728	0.2%
8	D, D	6,617	1.9%
9	W, W	-1,227	-0.5%
10	W, W	-2,710	-1.1%
11	W, AN	-2,830	-0.9%
12	D, D	2,933	0.7%
13	W, W	4,256	1.3%
14	D, D	23,989	5.7%
15	C, C	53,996	12.1%
16	D, C	15,879	3.9%
17	C, C	-28,986	-6.1%
18	C, C	80,384	15.1%
19	C, C	-4,608	-0.8%
20	AN, W	1,003	0.3%
21	C, C	63,191	15.8%
22	W, W	12,345	3.9%
23	W, W	-2,983	-1.0%
24	W, W	-3,121	-1.0%
25	W, W	-3,081	-1.4%
26	W, AN	-2,367	-0.9%
27	AN, AN	-899	-0.3%
28	D, D	3,902	1.1%
29	D, D	-8,410	-2.3%
30	AN, BN	-1,169	-0.4%
31	BN, D	-6,921	-2.0%
32	AN, W	-482	-0.2%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
33	W, W	-2,186	-0.7%
34	D, C	2,016	0.6%
35	C, C	11,737	2.9%
36	D, BN	-16,554	-3.7%
37	BN, AN	-2,707	-1.0%
38	W, W	-2,429	-0.9%
39	BN, D	-2,201	-0.6%
40	D, C	35,432	8.7%
41	C, C	86,008	14.8%
42	C, C	1,968	0.3%
<b>Average</b>		<b>9,690</b>	<b>1.9%</b>
<b>Maximum</b>		<b>86,008</b>	<b>15.8%</b>
<b>Minimum</b>		<b>-28,986</b>	<b>-6.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-109. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 4 (SR4) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	-3,156	-1.0%
2	W, W	-761	-0.2%
3	C, C	-5,735	-1.6%
4	C, C	31,846	8.5%
5	AN, W	1,913	0.6%
6	BN, AN	4,418	1.3%
7	AN, W	-4,328	-1.3%
8	D, D	8,643	2.5%
9	W, W	6,652	2.2%
10	W, W	-9,775	-3.1%
11	W, AN	-8,853	-2.6%
12	D, D	180	0.1%
13	W, W	-3,282	-1.0%
14	D, D	-2,707	-0.7%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
15	C, C	-4,074	-1.2%
16	D, C	679	0.2%
17	C, C	-10,252	-3.2%
18	C, C	30,399	9.2%
19	C, C	-9,455	-2.7%
20	AN, W	-1,932	-0.6%
21	C, C	-3,667	-1.1%
22	W, W	-7,057	-2.1%
23	W, W	-9,184	-2.7%
24	W, W	-9,026	-2.8%
25	W, W	-8,587	-2.7%
26	W, AN	-8,732	-2.7%
27	AN, AN	2,816	0.9%
28	D, D	1,044	0.3%
29	D, D	7,618	2.3%
30	AN, BN	7,703	2.3%
31	BN, D	9,076	2.7%
32	AN, W	8,797	2.8%
33	W, W	-3,458	-1.1%
34	D, C	456	0.1%
35	C, C	7,279	2.1%
36	D, BN	4,075	1.1%
37	BN, AN	6,224	1.9%
38	W, W	-4,654	-1.4%
39	BN, D	1,069	0.3%
40	D, C	3,079	0.8%
41	C, C	40,357	10.6%
42	C, C	-6,645	-1.8%
<b>Average</b>		<b>1,405</b>	<b>0.4%</b>
<b>Maximum</b>		<b>40,357</b>	<b>10.6%</b>
<b>Minimum</b>		<b>-10,252</b>	<b>-3.2%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-110. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 5 (SR5) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	-65	0.0%
2	W, W	-166	0.0%
3	C, C	628	0.1%
4	C, C	3,417	0.6%
5	AN, W	-2,740	-0.6%
6	BN, AN	-710	-0.2%
7	AN, W	-266	-0.1%
8	D, D	352	0.1%
9	W, W	-305	-0.1%
10	W, W	-713	-0.2%
11	W, AN	-187	0.0%
12	D, D	-733	-0.2%
13	W, W	-692	-0.2%
14	D, D	1,695	0.4%
15	C, C	3,385	0.7%
16	D, C	-3,239	-0.7%
17	C, C	94	0.0%
18	C, C	3,104	0.7%
19	C, C	4,699	0.9%
20	AN, W	-575	-0.1%
21	C, C	4,323	0.9%
22	W, W	679	0.2%
23	W, W	-1,248	-0.3%
24	W, W	-346	-0.1%
25	W, W	-147	0.0%
26	W, AN	329	0.1%
27	AN, AN	-137	0.0%
28	D, D	41	0.0%
29	D, D	-294	-0.1%
30	AN, BN	-326	-0.1%
31	BN, D	-276	-0.1%
32	AN, W	-226	-0.1%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
33	W, W	-896	-0.2%
34	D, C	380	0.1%
35	C, C	564	0.1%
36	D, BN	-2,093	-0.4%
37	BN, AN	248	0.1%
38	W, W	-372	-0.1%
39	BN, D	-388	-0.1%
40	D, C	2,616	0.5%
41	C, C	211	0.0%
42	C, C	-266	0.0%
<b>Average</b>		<b>223</b>	<b>0.0%</b>
<b>Maximum</b>		<b>4,699</b>	<b>0.9%</b>
<b>Minimum</b>		<b>-3,239</b>	<b>-0.7%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-111. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 6 (SR6) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	-1,842	-0.3%
2	W, W	338	0.1%
3	C, C	-4,547	-0.6%
4	C, C	-1,666	-0.2%
5	AN, W	-1,504	-0.2%
6	BN, AN	-1,687	-0.2%
7	AN, W	-729	-0.1%
8	D, D	-1,217	-0.2%
9	W, W	-68	0.0%
10	W, W	-1,580	-0.3%
11	W, AN	-1,731	-0.2%
12	D, D	-241	0.0%
13	W, W	-2,081	-0.3%
14	D, D	-2,910	-0.4%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
15	C, C	-2,218	-0.3%
16	D, C	-10,156	-1.2%
17	C, C	-8,691	-1.1%
18	C, C	-5,188	-0.6%
19	C, C	10,111	1.2%
20	AN, W	-4	0.0%
21	C, C	-4,802	-0.6%
22	W, W	832	0.1%
23	W, W	-1,434	-0.2%
24	W, W	-2,402	-0.4%
25	W, W	-1,485	-0.2%
26	W, AN	-3,089	-0.5%
27	AN, AN	-2,732	-0.4%
28	D, D	-2,282	-0.3%
29	D, D	-1,390	-0.2%
30	AN, BN	-3,727	-0.6%
31	BN, D	11	0.0%
32	AN, W	-108	0.0%
33	W, W	-758	-0.1%
34	D, C	-2,327	-0.3%
35	C, C	-880	-0.1%
36	D, BN	-21,384	-2.6%
37	BN, AN	-520	-0.1%
38	W, W	-2,674	-0.4%
39	BN, D	-4,743	-0.6%
40	D, C	-4,548	-0.6%
41	C, C	-3,695	-0.4%
42	C, C	-4,807	-0.6%
<b>Average</b>		<b>-2,537</b>	<b>-0.3%</b>
<b>Maximum</b>		<b>10,111</b>	<b>1.2%</b>
<b>Minimum</b>		<b>-21,384</b>	<b>-2.6%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-112. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 7 (SR7) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	926	0.3%
2	W, W	505	0.1%
3	C, C	12,126	3.2%
4	C, C	-1,237	-0.3%
5	AN, W	-392	-0.1%
6	BN, AN	11,160	3.0%
7	AN, W	-636	-0.2%
8	D, D	12,445	3.2%
9	W, W	-1,194	-0.4%
10	W, W	650	0.2%
11	W, AN	160	0.0%
12	D, D	625	0.2%
13	W, W	988	0.3%
14	D, D	12,750	3.3%
15	C, C	12,445	3.2%
16	D, C	12,431	3.2%
17	C, C	5,546	1.5%
18	C, C	1,875	0.5%
19	C, C	8,337	2.1%
20	AN, W	937	0.3%
21	C, C	11,112	2.8%
22	W, W	-583	-0.2%
23	W, W	318	0.1%
24	W, W	-805	-0.2%
25	W, W	2,887	0.8%
26	W, AN	1,389	0.4%
27	AN, AN	701	0.2%
28	D, D	8,768	2.2%
29	D, D	-698	-0.2%
30	AN, BN	428	0.1%
31	BN, D	-1,328	-0.3%
32	AN, W	-690	-0.2%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
33	W, W	426	0.1%
34	D, C	-321	-0.1%
35	C, C	11,111	2.8%
36	D, BN	9,875	2.4%
37	BN, AN	547	0.1%
38	W, W	-214	-0.1%
39	BN, D	588	0.2%
40	D, C	454	0.1%
41	C, C	-5,285	-1.3%
42	C, C	6,027	1.5%
<b>Average</b>		<b>3,218</b>	<b>0.8%</b>
<b>Maximum</b>		<b>12,750</b>	<b>3.3%</b>
<b>Minimum</b>		<b>-5,285</b>	<b>-1.3%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-113. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 8 (SR8) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	-448	-0.1%
2	W, W	4,174	0.5%
3	C, C	-265	0.0%
4	C, C	-59	0.0%
5	AN, W	3,781	0.4%
6	BN, AN	3,778	0.4%
7	AN, W	4,328	0.5%
8	D, D	306	0.0%
9	W, W	346	0.0%
10	W, W	-2	0.0%
11	W, AN	590	0.1%
12	D, D	-270	0.0%
13	W, W	-97	0.0%
14	D, D	-226	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
15	C, C	37	0.0%
16	D, C	362	0.0%
17	C, C	97	0.0%
18	C, C	91	0.0%
19	C, C	342	0.0%
20	AN, W	-167	0.0%
21	C, C	-828	-0.1%
22	W, W	-101	0.0%
23	W, W	-60	0.0%
24	W, W	-1,146	-0.1%
25	W, W	140	0.0%
26	W, AN	4,011	0.5%
27	AN, AN	369	0.0%
28	D, D	-44	0.0%
29	D, D	282	0.0%
30	AN, BN	279	0.0%
31	BN, D	-465	0.0%
32	AN, W	-228	0.0%
33	W, W	-860	-0.1%
34	D, C	283	0.0%
35	C, C	4	0.0%
36	D, BN	114	0.0%
37	BN, AN	134	0.0%
38	W, W	-92	0.0%
39	BN, D	-28	0.0%
40	D, C	249	0.0%
41	C, C	295	0.0%
42	C, C	-240	0.0%
<b>Average</b>		<b>447</b>	<b>0.1%</b>
<b>Maximum</b>		<b>4,328</b>	<b>0.5%</b>
<b>Minimum</b>		<b>-1,146</b>	<b>-0.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-114. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 9 (SR9) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	153	0.0%
2	W, W	1,543	0.3%
3	C, C	1,927	0.4%
4	C, C	806	0.1%
5	AN, W	2,039	0.4%
6	BN, AN	1,499	0.3%
7	AN, W	1,327	0.3%
8	D, D	3,093	0.6%
9	W, W	871	0.2%
10	W, W	369	0.1%
11	W, AN	-526	-0.1%
12	D, D	2,248	0.4%
13	W, W	628	0.1%
14	D, D	2,364	0.4%
15	C, C	2,905	0.5%
16	D, C	2,459	0.4%
17	C, C	-1,460	-0.3%
18	C, C	-1,202	-0.2%
19	C, C	-1,811	-0.3%
20	AN, W	-1,803	-0.4%
21	C, C	3,061	0.5%
22	W, W	1,011	0.2%
23	W, W	182	0.0%
24	W, W	-3,070	-0.6%
25	W, W	-95	0.0%
26	W, AN	-485	-0.1%
27	AN, AN	2,730	0.5%
28	D, D	3,178	0.6%
29	D, D	2,909	0.5%
30	AN, BN	381	0.1%
31	BN, D	1,649	0.3%
32	AN, W	1,312	0.3%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
33	W, W	-391	-0.1%
34	D, C	2,188	0.4%
35	C, C	2,677	0.5%
36	D, BN	2,206	0.4%
37	BN, AN	2,293	0.5%
38	W, W	-10	0.0%
39	BN, D	710	0.1%
40	D, C	3,165	0.5%
41	C, C	297	0.1%
42	C, C	-1,097	-0.2%
<b>Average</b>		<b>1,005</b>	<b>0.2%</b>
<b>Maximum</b>		<b>3,178</b>	<b>0.6%</b>
<b>Minimum</b>		<b>-3,070</b>	<b>-0.6%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-115. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 10 (SR10) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	-148	-0.1%
2	W, W	25,189	6.8%
3	C, C	18,269	3.5%
4	C, C	-97,360	-12.0%
5	AN, W	25,689	6.9%
6	BN, AN	18,799	4.7%
7	AN, W	29,222	9.6%
8	D, D	35,509	8.0%
9	W, W	3,170	1.1%
10	W, W	34	0.0%
11	W, AN	-7,394	-2.4%
12	D, D	32,031	7.2%
13	W, W	8,961	2.9%
14	D, D	29,562	6.5%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
15	C, C	33,810	6.4%
16	D, C	25,401	4.7%
17	C, C	-17,612	-2.9%
18	C, C	-21,889	-2.8%
19	C, C	-12,732	-1.7%
20	AN, W	-7,029	-1.7%
21	C, C	36,175	6.6%
22	W, W	9,496	2.8%
23	W, W	1,904	0.6%
24	W, W	-10,466	-3.4%
25	W, W	359	0.1%
26	W, AN	-3,119	-1.1%
27	AN, AN	38,752	9.8%
28	D, D	34,632	7.5%
29	D, D	32,651	7.0%
30	AN, BN	7,348	1.7%
31	BN, D	30,812	6.6%
32	AN, W	17,879	5.9%
33	W, W	-2,701	-0.9%
34	D, C	25,246	6.0%
35	C, C	35,383	7.3%
36	D, BN	28,165	5.0%
37	BN, AN	24,911	5.8%
38	W, W	1,845	0.6%
39	BN, D	4,684	1.2%
40	D, C	32,618	7.2%
41	C, C	-64,270	-8.4%
42	C, C	-14,494	-2.0%
<b>Average</b>		<b>9,269</b>	<b>2.6%</b>
<b>Maximum</b>		<b>38,752</b>	<b>9.8%</b>
<b>Minimum</b>		<b>-97,360</b>	<b>-12.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-116. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 11 (SR11) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	-10	0.0%
2	W, W	-2	0.0%
3	C, C	-3,268	-0.8%
4	C, C	-193	0.0%
5	AN, W	8	0.0%
6	BN, AN	41	0.0%
7	AN, W	81	0.0%
8	D, D	-3,274	-0.9%
9	W, W	-81	0.0%
10	W, W	-4	0.0%
11	W, AN	17	0.0%
12	D, D	-23	0.0%
13	W, W	19	0.0%
14	D, D	-13	0.0%
15	C, C	-12	0.0%
16	D, C	55	0.0%
17	C, C	-74	0.0%
18	C, C	117	0.0%
19	C, C	-149	0.0%
20	AN, W	-3,683	-1.1%
21	C, C	529	0.1%
22	W, W	409	0.1%
23	W, W	210	0.1%
24	W, W	9,890	3.1%
25	W, W	7,615	3.1%
26	W, AN	12	0.0%
27	AN, AN	-17	0.0%
28	D, D	151	0.0%
29	D, D	166	0.0%
30	AN, BN	89	0.0%
31	BN, D	-32	0.0%
32	AN, W	12,286	4.6%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
33	W, W	190	0.1%
34	D, C	-196	-0.1%
35	C, C	-90	0.0%
36	D, BN	7	0.0%
37	BN, AN	-125	0.0%
38	W, W	69	0.0%
39	BN, D	-49	0.0%
40	D, C	41	0.0%
41	C, C	-459	-0.1%
42	C, C	-165	0.0%
<b>Average</b>		<b>478</b>	<b>0.2%</b>
<b>Maximum</b>		<b>12,286</b>	<b>4.6%</b>
<b>Minimum</b>		<b>-3,683</b>	<b>-1.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-117. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 12 (SR12) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	10	0.0%
2	W, W	215	0.1%
3	C, C	-219	0.0%
4	C, C	80	0.0%
5	AN, W	105	0.0%
6	BN, AN	-147	0.0%
7	AN, W	18	0.0%
8	D, D	7	0.0%
9	W, W	26	0.0%
10	W, W	-96	0.0%
11	W, AN	-42	0.0%
12	D, D	-388	-0.1%
13	W, W	170	0.0%
14	D, D	0	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
15	C, C	-125	0.0%
16	D, C	307	0.0%
17	C, C	-333	0.0%
18	C, C	-105	0.0%
19	C, C	-36	0.0%
20	AN, W	-10,898	-1.8%
21	C, C	2,682	0.4%
22	W, W	1,200	0.3%
23	W, W	-18	0.0%
24	W, W	-1	0.0%
25	W, W	27	0.0%
26	W, AN	-30	0.0%
27	AN, AN	-8	0.0%
28	D, D	33	0.0%
29	D, D	-33	0.0%
30	AN, BN	65	0.0%
31	BN, D	53	0.0%
32	AN, W	99	0.0%
33	W, W	-16	0.0%
34	D, C	-213	0.0%
35	C, C	-200	0.0%
36	D, BN	-211	0.0%
37	BN, AN	44	0.0%
38	W, W	43	0.0%
39	BN, D	-98	0.0%
40	D, C	-225	0.0%
41	C, C	-856	-0.1%
42	C, C	146	0.0%
<b>Average</b>		<b>-214</b>	<b>0.0%</b>
<b>Maximum</b>		<b>2,682</b>	<b>0.4%</b>
<b>Minimum</b>		<b>-10,898</b>	<b>-1.8%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-118. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 13 (SR13) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	179	0.0%
2	W, W	-72	0.0%
3	C, C	-87	0.0%
4	C, C	-9,976	-0.4%
5	AN, W	-12,128	-0.7%
6	BN, AN	213	0.0%
7	AN, W	-444	0.0%
8	D, D	222	0.0%
9	W, W	225	0.0%
10	W, W	-43	0.0%
11	W, AN	-16	0.0%
12	D, D	297	0.0%
13	W, W	58	0.0%
14	D, D	-343	0.0%
15	C, C	-241	0.0%
16	D, C	-743	0.0%
17	C, C	-484	0.0%
18	C, C	-2,410	-0.1%
19	C, C	-257	0.0%
20	AN, W	-974	-0.1%
21	C, C	186	0.0%
22	W, W	553	0.0%
23	W, W	418	0.0%
24	W, W	-42	0.0%
25	W, W	-195	0.0%
26	W, AN	15	0.0%
27	AN, AN	-13	0.0%
28	D, D	66	0.0%
29	D, D	-709	0.0%
30	AN, BN	-276	0.0%
31	BN, D	-831	0.0%
32	AN, W	-717	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
33	W, W	241	0.0%
34	D, C	-253	0.0%
35	C, C	-311	0.0%
36	D, BN	-655	0.0%
37	BN, AN	-654	0.0%
38	W, W	-238	0.0%
39	BN, D	-216	0.0%
40	D, C	-792	0.0%
41	C, C	-7,615	-0.3%
42	C, C	-1,656	-0.1%
<b>Average</b>		<b>-969</b>	<b>0.0%</b>
<b>Maximum</b>		<b>553</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-12,128</b>	<b>-0.7%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-119. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 14 (SR14) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	15,288	7.0%
2	W, W	37,103	11.1%
3	C, C	65,355	10.0%
4	C, C	23,587	1.9%
5	AN, W	69,465	17.9%
6	BN, AN	47,191	9.9%
7	AN, W	60,486	24.7%
8	D, D	85,054	18.2%
9	W, W	27,542	9.4%
10	W, W	11,168	6.6%
11	W, AN	5,444	2.8%
12	D, D	81,668	16.3%
13	W, W	17,015	6.7%
14	D, D	87,455	17.3%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
15	C, C	102,332	14.2%
16	D, C	60,302	8.0%
17	C, C	-51,073	-4.7%
18	C, C	-25,578	-1.9%
19	C, C	-37,154	-2.8%
20	AN, W	-31,425	-5.1%
21	C, C	112,744	14.0%
22	W, W	36,716	10.6%
23	W, W	23,115	8.3%
24	W, W	-23,919	-9.1%
25	W, W	12,680	6.0%
26	W, AN	11,651	4.8%
27	AN, AN	97,398	16.5%
28	D, D	83,424	11.0%
29	D, D	84,008	10.6%
30	AN, BN	65,666	10.1%
31	BN, D	120,788	16.8%
32	AN, W	38,173	11.0%
33	W, W	13,252	6.1%
34	D, C	73,323	12.3%
35	C, C	89,338	10.3%
36	D, BN	88,291	7.4%
37	BN, AN	63,450	7.9%
38	W, W	6,724	2.3%
39	BN, D	3,196	0.7%
40	D, C	81,914	10.5%
41	C, C	36,227	3.0%
42	C, C	-40,190	-3.0%
<b>Average</b>		<b>41,171</b>	<b>8.0%</b>
<b>Maximum</b>		<b>120,788</b>	<b>24.7%</b>
<b>Minimum</b>		<b>-51,073</b>	<b>-9.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-120. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 15 (SR15) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	-609	0.0%
2	W, W	6,245	0.4%
3	C, C	-20,942	-1.2%
4	C, C	-15,036	-0.8%
5	AN, W	3,760	0.3%
6	BN, AN	11,172	0.9%
7	AN, W	6,654	0.5%
8	D, D	6,665	0.4%
9	W, W	-5,475	-0.5%
10	W, W	105	0.0%
11	W, AN	-463	0.0%
12	D, D	7,586	0.5%
13	W, W	1,960	0.2%
14	D, D	3,435	0.2%
15	C, C	3,418	0.2%
16	D, C	5,724	0.3%
17	C, C	-12,227	-0.7%
18	C, C	-1,510	-0.1%
19	C, C	-1,471	-0.1%
20	AN, W	1,619	0.1%
21	C, C	7,904	0.5%
22	W, W	155	0.0%
23	W, W	-8,011	-0.6%
24	W, W	-3,168	-0.2%
25	W, W	-783	-0.1%
26	W, AN	1,522	0.1%
27	AN, AN	2,453	0.2%
28	D, D	13,623	0.8%
29	D, D	6,080	0.4%
30	AN, BN	3,375	0.2%
31	BN, D	733	0.0%
32	AN, W	1,815	0.2%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
33	W, W	3,698	0.3%
34	D, C	1,156	0.1%
35	C, C	6,514	0.4%
36	D, BN	19,178	1.1%
37	BN, AN	4,768	0.3%
38	W, W	-5,912	-0.5%
39	BN, D	1,443	0.1%
40	D, C	3,465	0.2%
41	C, C	-1,839	-0.1%
42	C, C	-5,215	-0.3%
<b>Average</b>		<b>1,275</b>	<b>0.1%</b>
<b>Maximum</b>		<b>19,178</b>	<b>1.1%</b>
<b>Minimum</b>		<b>-20,942</b>	<b>-1.2%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-121. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 16 (SR16) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	24	0.0%
2	W, W	12	0.0%
3	C, C	22	0.0%
4	C, C	37	0.0%
5	AN, W	-3	0.0%
6	BN, AN	0	0.0%
7	AN, W	-36	-0.1%
8	D, D	0	0.0%
9	W, W	11	0.0%
10	W, W	0	0.0%
11	W, AN	8	0.0%
12	D, D	0	0.0%
13	W, W	0	0.0%
14	D, D	11	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
15	C, C	66	0.0%
16	D, C	-5	0.0%
17	C, C	72	0.0%
18	C, C	125	0.1%
19	C, C	-74	0.0%
20	AN, W	8	0.0%
21	C, C	54	0.0%
22	W, W	-98	-0.1%
23	W, W	0	0.0%
24	W, W	14	0.0%
25	W, W	0	0.0%
26	W, AN	0	0.0%
27	AN, AN	0	0.0%
28	D, D	0	0.0%
29	D, D	1	0.0%
30	AN, BN	117	0.1%
31	BN, D	-34	0.0%
32	AN, W	0	0.0%
33	W, W	39	0.1%
34	D, C	0	0.0%
35	C, C	137	0.1%
36	D, BN	58	0.0%
37	BN, AN	-80	-0.1%
38	W, W	8	0.0%
39	BN, D	9	0.0%
40	D, C	-24	0.0%
41	C, C	35	0.0%
42	C, C	-30	0.0%
<b>Average</b>		<b>12</b>	<b>0.0%</b>
<b>Maximum</b>		<b>137</b>	<b>0.1%</b>
<b>Minimum</b>		<b>-98</b>	<b>-0.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-122. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 17 (SR17) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	13	0.0%
2	W, W	-8	0.0%
3	C, C	-79	0.0%
4	C, C	40	0.0%
5	AN, W	-15	0.0%
6	BN, AN	25	0.0%
7	AN, W	11	0.0%
8	D, D	-9	0.0%
9	W, W	14	0.0%
10	W, W	-45	0.0%
11	W, AN	25	0.0%
12	D, D	-15	0.0%
13	W, W	-38	0.0%
14	D, D	-47	0.0%
15	C, C	-60	0.0%
16	D, C	-39	0.0%
17	C, C	26	0.0%
18	C, C	48	0.0%
19	C, C	-20	0.0%
20	AN, W	-33	0.0%
21	C, C	-12	0.0%
22	W, W	6	0.0%
23	W, W	-56	0.0%
24	W, W	85	0.0%
25	W, W	46	0.0%
26	W, AN	44	0.0%
27	AN, AN	-14	0.0%
28	D, D	-132	0.0%
29	D, D	-113	0.0%
30	AN, BN	-10	0.0%
31	BN, D	103	0.0%
32	AN, W	40	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
33	W, W	-15	0.0%
34	D, C	-52	0.0%
35	C, C	-47	0.0%
36	D, BN	40	0.0%
37	BN, AN	61	0.0%
38	W, W	-28	0.0%
39	BN, D	-148	0.0%
40	D, C	-4	0.0%
41	C, C	-55	0.0%
42	C, C	26	0.0%
<b>Average</b>		<b>-11</b>	<b>0.0%</b>
<b>Maximum</b>		<b>103</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-148</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-123. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 18 (SR18) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	-135	0.0%
2	W, W	-52	0.0%
3	C, C	181	0.0%
4	C, C	1,630	0.1%
5	AN, W	364	0.0%
6	BN, AN	103	0.0%
7	AN, W	-121	0.0%
8	D, D	276	0.0%
9	W, W	211	0.0%
10	W, W	1	0.0%
11	W, AN	43	0.0%
12	D, D	-111	0.0%
13	W, W	27	0.0%
14	D, D	218	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
15	C, C	210	0.0%
16	D, C	1,765	0.1%
17	C, C	-538	0.0%
18	C, C	245	0.0%
19	C, C	278	0.0%
20	AN, W	-127	0.0%
21	C, C	1,325	0.1%
22	W, W	-38	0.0%
23	W, W	-8	0.0%
24	W, W	-43	0.0%
25	W, W	43	0.0%
26	W, AN	-91	0.0%
27	AN, AN	-179	0.0%
28	D, D	-15	0.0%
29	D, D	-81	0.0%
30	AN, BN	202	0.0%
31	BN, D	145	0.0%
32	AN, W	-47	0.0%
33	W, W	5	0.0%
34	D, C	208	0.0%
35	C, C	-18	0.0%
36	D, BN	55	0.0%
37	BN, AN	-70	0.0%
38	W, W	-6	0.0%
39	BN, D	198	0.0%
40	D, C	30	0.0%
41	C, C	198	0.0%
42	C, C	88	0.0%
<b>Average</b>		<b>152</b>	<b>0.0%</b>
<b>Maximum</b>		<b>1,765</b>	<b>0.1%</b>
<b>Minimum</b>		<b>-538</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-124. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 19 (SR19) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	0	0.0%
3	C, C	0	0.0%
4	C, C	0	0.0%
5	AN, W	0	0.0%
6	BN, AN	-1	0.0%
7	AN, W	22	0.0%
8	D, D	0	0.0%
9	W, W	0	0.0%
10	W, W	0	0.0%
11	W, AN	75	0.0%
12	D, D	-27	0.0%
13	W, W	-35	0.0%
14	D, D	31	0.0%
15	C, C	85	0.0%
16	D, C	-165	0.0%
17	C, C	0	0.0%
18	C, C	-23	0.0%
19	C, C	32	0.0%
20	AN, W	0	0.0%
21	C, C	0	0.0%
22	W, W	0	0.0%
23	W, W	30	0.0%
24	W, W	175	0.1%
25	W, W	35	0.0%
26	W, AN	-32	0.0%
27	AN, AN	70	0.0%
28	D, D	26	0.0%
29	D, D	10	0.0%
30	AN, BN	0	0.0%
31	BN, D	-1	0.0%
32	AN, W	0	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
33	W, W	0	0.0%
34	D, C	0	0.0%
35	C, C	-50	0.0%
36	D, BN	27	0.0%
37	BN, AN	0	0.0%
38	W, W	0	0.0%
39	BN, D	0	0.0%
40	D, C	0	0.0%
41	C, C	0	0.0%
42	C, C	0	0.0%
<b>Average</b>		<b>7</b>	<b>0.0%</b>
<b>Maximum</b>		<b>175</b>	<b>0.1%</b>
<b>Minimum</b>		<b>-165</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-125. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 20 (SR20) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	0	0.0%
3	C, C	0	0.0%
4	C, C	4	0.0%
5	AN, W	2	0.0%
6	BN, AN	0	0.0%
7	AN, W	-2	0.0%
8	D, D	-1	0.0%
9	W, W	-1	0.0%
10	W, W	-84	0.0%
11	W, AN	-1	0.0%
12	D, D	-3	0.0%
13	W, W	0	0.0%
14	D, D	-112	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
15	C, C	-95	0.0%
16	D, C	105	0.0%
17	C, C	35	0.0%
18	C, C	-2	0.0%
19	C, C	113	0.0%
20	AN, W	-45	0.0%
21	C, C	-48	0.0%
22	W, W	-5	0.0%
23	W, W	-5	0.0%
24	W, W	17	0.0%
25	W, W	-23	0.0%
26	W, AN	0	0.0%
27	AN, AN	0	0.0%
28	D, D	0	0.0%
29	D, D	-1	0.0%
30	AN, BN	0	0.0%
31	BN, D	-13	0.0%
32	AN, W	124	0.0%
33	W, W	-159	0.0%
34	D, C	-2	0.0%
35	C, C	18	0.0%
36	D, BN	-2	0.0%
37	BN, AN	15	0.0%
38	W, W	2	0.0%
39	BN, D	-1	0.0%
40	D, C	91	0.0%
41	C, C	-45	0.0%
42	C, C	-7	0.0%
<b>Average</b>		<b>-3</b>	<b>0.0%</b>
<b>Maximum</b>		<b>124</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-159</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-126. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 21 (SR21) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	2	0.0%
2	W, W	-38	0.0%
3	C, C	-66	0.0%
4	C, C	-22	0.0%
5	AN, W	52	0.0%
6	BN, AN	26	0.0%
7	AN, W	-40	0.0%
8	D, D	-43	0.0%
9	W, W	30	0.0%
10	W, W	-19	0.0%
11	W, AN	-107	0.0%
12	D, D	-13	0.0%
13	W, W	0	0.0%
14	D, D	-2	0.0%
15	C, C	150	0.0%
16	D, C	-90	0.0%
17	C, C	-142	0.0%
18	C, C	-260	0.0%
19	C, C	145	0.0%
20	AN, W	85	0.0%
21	C, C	-18	0.0%
22	W, W	0	0.0%
23	W, W	43	0.0%
24	W, W	30	0.0%
25	W, W	-155	0.0%
26	W, AN	90	0.0%
27	AN, AN	64	0.0%
28	D, D	-34	0.0%
29	D, D	2	0.0%
30	AN, BN	11	0.0%
31	BN, D	-141	0.0%
32	AN, W	14	0.0%
33	W, W	7	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
34	D, C	-1	0.0%
35	C, C	-116	0.0%
36	D, BN	33	0.0%
37	BN, AN	77	0.0%
38	W, W	135	0.0%
39	BN, D	-87	0.0%
40	D, C	-19	0.0%
41	C, C	-8	0.0%
42	C, C	14	0.0%
<b>Average</b>		<b>-10</b>	<b>0.0%</b>
<b>Maximum</b>		<b>150</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-260</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

### I-1.1.7 Changes in Groundwater Pumping, Alternative 3 Compared to No Action Alternative

Table I.1-127 through Table I.1-147 provide the annual simulated groundwater pumping through the model simulation period for each of the 21 model subregions for Alternative 3 compared to the No Action Alternative.

Table I.1-127. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 1 (SR1) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	70	0.1%
2	W, W	31	0.1%
3	C, C	2,768	4.5%
4	C, C	27,344	35.8%
5	AN, W	3,721	6.2%
6	BN, AN	-734	-1.2%
7	AN, W	-138	-0.2%
8	D, D	-224	-0.4%
9	W, W	29	0.1%
10	W, W	49	0.1%
11	W, AN	82	0.1%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
12	D, D	296	0.5%
13	W, W	-91	-0.2%
14	D, D	7,474	10.4%
15	C, C	5,139	6.8%
16	D, C	-63	-0.1%
17	C, C	-102	-0.1%
18	C, C	6,281	7.6%
19	C, C	3,397	3.9%
20	AN, W	350	0.6%
21	C, C	7,411	10.4%
22	W, W	1,360	2.1%
23	W, W	-98	-0.2%
24	W, W	-42	-0.1%
25	W, W	-128	-0.2%
26	W, AN	-130	-0.2%
27	AN, AN	-173	-0.3%
28	D, D	3,357	5.4%
29	D, D	614	0.9%
30	AN, BN	1	0.0%
31	BN, D	3,774	5.9%
32	AN, W	-149	-0.3%
33	W, W	-93	-0.1%
34	D, C	3,632	5.5%
35	C, C	7,212	10.4%
36	D, BN	3,683	5.3%
37	BN, AN	-48	-0.1%
38	W, W	-6	0.0%
39	BN, D	18	0.0%
40	D, C	6,544	9.4%
41	C, C	26,124	30.4%
42	C, C	17,006	19.0%
<b>Average</b>		<b>3,227</b>	<b>4.2%</b>
<b>Maximum</b>		<b>27,344</b>	<b>35.8%</b>
<b>Minimum</b>		<b>-734</b>	<b>-1.2%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-128. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 2 (SR2) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	-33	0.0%
2	W, W	238	0.0%
3	C, C	5,344	1.0%
4	C, C	9,694	1.5%
5	AN, W	788	0.2%
6	BN, AN	-4,724	-0.9%
7	AN, W	-987	-0.2%
8	D, D	-834	-0.2%
9	W, W	-148	0.0%
10	W, W	-18	0.0%
11	W, AN	-1	0.0%
12	D, D	1,314	0.2%
13	W, W	529	0.1%
14	D, D	11,181	1.9%
15	C, C	17,667	2.9%
16	D, C	-2,023	-0.3%
17	C, C	4,282	0.8%
18	C, C	5,489	0.9%
19	C, C	1,459	0.2%
20	AN, W	13	0.0%
21	C, C	15,475	2.8%
22	W, W	3,716	0.7%
23	W, W	0	0.0%
24	W, W	14	0.0%
25	W, W	112	0.0%
26	W, AN	-2	0.0%
27	AN, AN	8	0.0%
28	D, D	6,742	1.3%
29	D, D	1,066	0.2%
30	AN, BN	27	0.0%
31	BN, D	4,985	0.9%
32	AN, W	-75	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
33	W, W	-9	0.0%
34	D, C	4,881	0.8%
35	C, C	10,067	1.8%
36	D, BN	4,797	0.8%
37	BN, AN	242	0.1%
38	W, W	4	0.0%
39	BN, D	-298	-0.1%
40	D, C	10,008	1.6%
41	C, C	10,344	1.6%
42	C, C	5,195	0.8%
<b>Average</b>		<b>3,013</b>	<b>0.5%</b>
<b>Maximum</b>		<b>17,667</b>	<b>2.9%</b>
<b>Minimum</b>		<b>-4,724</b>	<b>-0.9%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-129. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 3 (SR3) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	2,660	0.9%
2	W, W	5,729	1.9%
3	C, C	45,895	10.2%
4	C, C	284,210	49.3%
5	AN, W	14,276	4.0%
6	BN, AN	-22,749	-6.0%
7	AN, W	-4,800	-1.5%
8	D, D	-1,629	-0.5%
9	W, W	1,677	0.7%
10	W, W	1,311	0.5%
11	W, AN	2,981	0.9%
12	D, D	10,542	2.7%
13	W, W	7,603	2.2%
14	D, D	76,049	18.1%
15	C, C	127,361	28.5%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
16	D, C	1,135	0.3%
17	C, C	48,425	10.2%
18	C, C	77,542	14.5%
19	C, C	18,083	3.0%
20	AN, W	890	0.3%
21	C, C	101,893	25.4%
22	W, W	17,937	5.6%
23	W, W	1,642	0.6%
24	W, W	2,405	0.8%
25	W, W	1,900	0.8%
26	W, AN	2,468	0.9%
27	AN, AN	1,014	0.4%
28	D, D	49,645	13.5%
29	D, D	1,209	0.3%
30	AN, BN	2,396	0.8%
31	BN, D	32,078	9.3%
32	AN, W	-670	-0.2%
33	W, W	3,419	1.2%
34	D, C	43,012	12.0%
35	C, C	67,414	16.4%
36	D, BN	38,104	8.5%
37	BN, AN	3,478	1.2%
38	W, W	3,332	1.2%
39	BN, D	2,413	0.7%
40	D, C	62,292	15.3%
41	C, C	286,906	49.4%
42	C, C	187,547	31.6%
<b>Average</b>		<b>38,310</b>	<b>8.0%</b>
<b>Maximum</b>		<b>286,906</b>	<b>49.4%</b>
<b>Minimum</b>		<b>-22,749</b>	<b>-6.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-130. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 4 (SR4) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	-14,574	-4.5%
2	W, W	-10,017	-2.9%
3	C, C	4,110	1.1%
4	C, C	259,173	68.9%
5	AN, W	7,775	2.3%
6	BN, AN	-17,548	-5.2%
7	AN, W	-17,566	-5.4%
8	D, D	342	0.1%
9	W, W	5,954	2.0%
10	W, W	25	0.0%
11	W, AN	-6,518	-1.9%
12	D, D	614	0.2%
13	W, W	-10,614	-3.1%
14	D, D	13,088	3.6%
15	C, C	6,503	1.9%
16	D, C	236	0.1%
17	C, C	10,551	3.3%
18	C, C	42,751	13.0%
19	C, C	9,693	2.7%
20	AN, W	-10,670	-3.3%
21	C, C	11,511	3.4%
22	W, W	78	0.0%
23	W, W	-12,686	-3.7%
24	W, W	-1,511	-0.5%
25	W, W	27	0.0%
26	W, AN	-19,168	-6.0%
27	AN, AN	-2,556	-0.8%
28	D, D	8,928	2.7%
29	D, D	-568	-0.2%
30	AN, BN	-5,666	-1.7%
31	BN, D	8,403	2.5%
32	AN, W	-1,247	-0.4%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
33	W, W	2,593	0.8%
34	D, C	11,748	3.2%
35	C, C	10,368	3.0%
36	D, BN	10,816	3.0%
37	BN, AN	13,330	4.2%
38	W, W	2,669	0.8%
39	BN, D	-177	-0.1%
40	D, C	11,347	3.1%
41	C, C	245,120	64.3%
42	C, C	149,285	40.4%
<b>Average</b>		<b>17,047</b>	<b>4.5%</b>
<b>Maximum</b>		<b>259,173</b>	<b>68.9%</b>
<b>Minimum</b>		<b>-19,168</b>	<b>-6.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-131. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 5 (SR5) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	894	0.2%
2	W, W	585	0.1%
3	C, C	1,956	0.4%
4	C, C	6,927	1.2%
5	AN, W	4,962	1.1%
6	BN, AN	-2,211	-0.5%
7	AN, W	689	0.2%
8	D, D	619	0.1%
9	W, W	678	0.2%
10	W, W	21	0.0%
11	W, AN	876	0.2%
12	D, D	1,115	0.2%
13	W, W	798	0.2%
14	D, D	4,747	1.0%
15	C, C	8,960	1.9%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
16	D, C	-6,656	-1.4%
17	C, C	4,094	1.0%
18	C, C	6,848	1.5%
19	C, C	11,630	2.3%
20	AN, W	3,520	0.9%
21	C, C	6,636	1.4%
22	W, W	1,612	0.4%
23	W, W	-838	-0.2%
24	W, W	831	0.2%
25	W, W	181	0.1%
26	W, AN	1,139	0.3%
27	AN, AN	951	0.2%
28	D, D	2,996	0.6%
29	D, D	1,279	0.3%
30	AN, BN	348	0.1%
31	BN, D	3,894	0.9%
32	AN, W	83	0.0%
33	W, W	-913	-0.2%
34	D, C	4,335	1.0%
35	C, C	4,404	0.9%
36	D, BN	1,769	0.3%
37	BN, AN	-49	0.0%
38	W, W	-42	0.0%
39	BN, D	1,879	0.4%
40	D, C	3,702	0.7%
41	C, C	12,816	2.4%
42	C, C	9,124	1.6%
<b>Average</b>		<b>2,552</b>	<b>0.5%</b>
<b>Maximum</b>		<b>12,816</b>	<b>2.4%</b>
<b>Minimum</b>		<b>-6,656</b>	<b>-1.4%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-132. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 6 (SR6) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	-276	0.0%
2	W, W	893	0.1%
3	C, C	1,469	0.2%
4	C, C	17,926	1.9%
5	AN, W	2,521	0.4%
6	BN, AN	-339	0.0%
7	AN, W	208	0.0%
8	D, D	2,033	0.3%
9	W, W	235	0.0%
10	W, W	-819	-0.1%
11	W, AN	-684	-0.1%
12	D, D	-717	-0.1%
13	W, W	-308	0.0%
14	D, D	3,951	0.5%
15	C, C	1,546	0.2%
16	D, C	166	0.0%
17	C, C	-365	0.0%
18	C, C	668	0.1%
19	C, C	1,716	0.2%
20	AN, W	437	0.1%
21	C, C	7,313	0.9%
22	W, W	184	0.0%
23	W, W	181	0.0%
24	W, W	-259	0.0%
25	W, W	-471	-0.1%
26	W, AN	-658	-0.1%
27	AN, AN	72	0.0%
28	D, D	253	0.0%
29	D, D	346	0.1%
30	AN, BN	3,222	0.5%
31	BN, D	-248	0.0%
32	AN, W	-1	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
33	W, W	537	0.1%
34	D, C	-137	0.0%
35	C, C	3,053	0.4%
36	D, BN	2,452	0.3%
37	BN, AN	-211	0.0%
38	W, W	-672	-0.1%
39	BN, D	591	0.1%
40	D, C	1,606	0.2%
41	C, C	15,151	1.7%
42	C, C	17,627	2.1%
<b>Average</b>		<b>1,909</b>	<b>0.2%</b>
<b>Maximum</b>		<b>17,926</b>	<b>2.1%</b>
<b>Minimum</b>		<b>-819</b>	<b>-0.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-133. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 7 (SR7) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	-887	-0.3%
2	W, W	172	0.0%
3	C, C	-430	-0.1%
4	C, C	-2,134	-0.5%
5	AN, W	644	0.2%
6	BN, AN	-1,058	-0.3%
7	AN, W	-1,050	-0.3%
8	D, D	-1,369	-0.4%
9	W, W	-272	-0.1%
10	W, W	787	0.2%
11	W, AN	-177	0.0%
12	D, D	-2,146	-0.6%
13	W, W	1,078	0.3%
14	D, D	-998	-0.3%
15	C, C	613	0.2%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
16	D, C	-1,647	-0.4%
17	C, C	-150	0.0%
18	C, C	199	0.1%
19	C, C	-808	-0.2%
20	AN, W	1,106	0.3%
21	C, C	-943	-0.2%
22	W, W	-2,036	-0.5%
23	W, W	-1,634	-0.4%
24	W, W	-1,052	-0.3%
25	W, W	503	0.1%
26	W, AN	447	0.1%
27	AN, AN	632	0.2%
28	D, D	-1,554	-0.4%
29	D, D	-1,374	-0.3%
30	AN, BN	-795	-0.2%
31	BN, D	-2,139	-0.5%
32	AN, W	-948	-0.3%
33	W, W	-666	-0.2%
34	D, C	-3,144	-0.8%
35	C, C	-2,122	-0.5%
36	D, BN	-2,096	-0.5%
37	BN, AN	442	0.1%
38	W, W	191	0.1%
39	BN, D	-455	-0.1%
40	D, C	-909	-0.2%
41	C, C	-3,234	-0.8%
42	C, C	1,161	0.3%
<b>Average</b>		<b>-720</b>	<b>-0.2%</b>
<b>Maximum</b>		<b>1,161</b>	<b>0.3%</b>
<b>Minimum</b>		<b>-3,234</b>	<b>-0.8%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-134. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 8 (SR8) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	30,540	3.6%
2	W, W	31,117	3.4%
3	C, C	4,592	0.4%
4	C, C	126	0.0%
5	AN, W	40,303	4.4%
6	BN, AN	35,434	3.9%
7	AN, W	42,168	5.0%
8	D, D	42,641	4.2%
9	W, W	44,986	5.7%
10	W, W	43,286	5.7%
11	W, AN	37,215	3.9%
12	D, D	39,248	4.0%
13	W, W	40,100	4.5%
14	D, D	6,598	0.6%
15	C, C	856	0.1%
16	D, C	935	0.1%
17	C, C	593	0.1%
18	C, C	416	0.0%
19	C, C	-76	0.0%
20	AN, W	39,912	4.4%
21	C, C	4,292	0.4%
22	W, W	40,814	4.6%
23	W, W	33,847	3.7%
24	W, W	43,453	4.6%
25	W, W	46,637	6.2%
26	W, AN	25,933	3.1%
27	AN, AN	22,378	2.5%
28	D, D	35,771	3.6%
29	D, D	34,939	3.6%
30	AN, BN	40,247	4.3%
31	BN, D	38,496	3.9%
32	AN, W	42,264	4.9%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
33	W, W	42,825	4.8%
34	D, C	9,655	0.9%
35	C, C	2,815	0.3%
36	D, BN	38,155	3.9%
37	BN, AN	34,028	4.1%
38	W, W	39,956	5.1%
39	BN, D	40,156	3.9%
40	D, C	6,188	0.6%
41	C, C	1,335	0.1%
42	C, C	645	0.1%
<b>Average</b>		<b>26,329</b>	<b>2.9%</b>
<b>Maximum</b>		<b>46,637</b>	<b>6.2%</b>
<b>Minimum</b>		<b>-76</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-135. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 9 (SR9) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	12,106	2.7%
2	W, W	13,121	2.7%
3	C, C	7,101	1.4%
4	C, C	655	0.1%
5	AN, W	12,994	2.5%
6	BN, AN	10,917	2.0%
7	AN, W	12,107	2.4%
8	D, D	13,053	2.4%
9	W, W	12,963	2.8%
10	W, W	11,024	2.6%
11	W, AN	14,190	2.6%
12	D, D	10,838	1.9%
13	W, W	14,780	3.0%
14	D, D	8,379	1.6%
15	C, C	4,178	0.8%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
16	D, C	6,569	1.2%
17	C, C	2,573	0.5%
18	C, C	2,146	0.4%
19	C, C	-619	-0.1%
20	AN, W	11,846	2.3%
21	C, C	10,582	1.9%
22	W, W	16,275	3.2%
23	W, W	15,916	3.0%
24	W, W	11,238	2.2%
25	W, W	11,441	2.5%
26	W, AN	12,845	2.7%
27	AN, AN	13,188	2.5%
28	D, D	8,534	1.6%
29	D, D	10,520	2.0%
30	AN, BN	11,816	2.4%
31	BN, D	9,252	1.7%
32	AN, W	14,339	3.0%
33	W, W	10,287	2.0%
34	D, C	5,824	1.1%
35	C, C	6,909	1.3%
36	D, BN	3,786	0.7%
37	BN, AN	7,955	1.7%
38	W, W	8,505	1.8%
39	BN, D	11,067	2.0%
40	D, C	9,026	1.6%
41	C, C	2,874	0.5%
42	C, C	-98	0.0%
<b>Average</b>		<b>9,357</b>	<b>1.8%</b>
<b>Maximum</b>		<b>16,275</b>	<b>3.2%</b>
<b>Minimum</b>		<b>-619</b>	<b>-0.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-136. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 10 (SR10) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	149,570	51.8%
2	W, W	171,878	46.4%
3	C, C	67,066	13.0%
4	C, C	238,098	29.4%
5	AN, W	179,137	48.4%
6	BN, AN	120,556	29.9%
7	AN, W	145,478	48.0%
8	D, D	261,648	59.1%
9	W, W	182,090	61.2%
10	W, W	132,670	56.6%
11	W, AN	161,126	52.5%
12	D, D	135,838	30.5%
13	W, W	174,488	55.7%
14	D, D	97,204	21.4%
15	C, C	275,544	52.5%
16	D, C	258,917	47.7%
17	C, C	56,396	9.1%
18	C, C	62,267	8.1%
19	C, C	3,892	0.5%
20	AN, W	150,831	36.1%
21	C, C	113,364	20.5%
22	W, W	175,638	51.5%
23	W, W	187,567	59.2%
24	W, W	136,494	44.2%
25	W, W	143,312	59.8%
26	W, AN	165,051	58.4%
27	AN, AN	162,168	41.0%
28	D, D	88,836	19.2%
29	D, D	289,918	61.9%
30	AN, BN	204,943	47.7%
31	BN, D	107,566	22.9%
32	AN, W	167,257	55.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
33	W, W	139,337	48.0%
34	D, C	97,000	23.2%
35	C, C	332,207	68.6%
36	D, BN	137,171	24.2%
37	BN, AN	95,488	22.1%
38	W, W	133,535	46.4%
39	BN, D	157,138	41.3%
40	D, C	110,922	24.5%
41	C, C	30,680	4.0%
42	C, C	56,849	7.9%
<b>Average</b>		<b>148,979</b>	<b>38.3%</b>
<b>Maximum</b>		<b>332,207</b>	<b>68.6%</b>
<b>Minimum</b>		<b>3,892</b>	<b>0.5%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-137. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 11 (SR11) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	-89	0.0%
2	W, W	277	0.1%
3	C, C	15,587	3.7%
4	C, C	23,629	4.0%
5	AN, W	1,440	0.4%
6	BN, AN	6	0.0%
7	AN, W	79	0.0%
8	D, D	-12	0.0%
9	W, W	2,284	0.8%
10	W, W	817	0.3%
11	W, AN	-10,494	-3.0%
12	D, D	-62	0.0%
13	W, W	1,858	0.6%
14	D, D	14,074	3.7%
15	C, C	18,076	4.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
16	D, C	1,350	0.3%
17	C, C	6,696	1.7%
18	C, C	5,281	1.3%
19	C, C	4,936	1.2%
20	AN, W	3,320	1.0%
21	C, C	4,570	1.2%
22	W, W	-1,066	-0.4%
23	W, W	-929	-0.3%
24	W, W	-2,594	-0.8%
25	W, W	363	0.1%
26	W, AN	-7,117	-2.3%
27	AN, AN	292	0.1%
28	D, D	899	0.3%
29	D, D	2,037	0.6%
30	AN, BN	7,738	2.4%
31	BN, D	2,052	0.6%
32	AN, W	-142	-0.1%
33	W, W	-8,722	-3.0%
34	D, C	4,136	1.1%
35	C, C	1,708	0.4%
36	D, BN	2,587	0.7%
37	BN, AN	299	0.1%
38	W, W	1,754	0.6%
39	BN, D	-897	-0.2%
40	D, C	968	0.2%
41	C, C	16,784	3.5%
42	C, C	18,273	4.0%
<b>Average</b>		<b>3,144</b>	<b>0.7%</b>
<b>Maximum</b>		<b>23,629</b>	<b>4.0%</b>
<b>Minimum</b>		<b>-10,494</b>	<b>-3.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-138. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 12 (SR12) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	1,069	0.2%
2	W, W	1,055	0.2%
3	C, C	707	0.1%
4	C, C	281	0.0%
5	AN, W	86	0.0%
6	BN, AN	-20	0.0%
7	AN, W	50	0.0%
8	D, D	-77	0.0%
9	W, W	67	0.0%
10	W, W	271	0.1%
11	W, AN	109	0.0%
12	D, D	251	0.0%
13	W, W	173	0.0%
14	D, D	449	0.1%
15	C, C	328	0.0%
16	D, C	232	0.0%
17	C, C	-197	0.0%
18	C, C	250	0.0%
19	C, C	-6	0.0%
20	AN, W	6,117	1.0%
21	C, C	-562	-0.1%
22	W, W	-480	-0.1%
23	W, W	-25	0.0%
24	W, W	-13	0.0%
25	W, W	-170	0.0%
26	W, AN	6	0.0%
27	AN, AN	-53	0.0%
28	D, D	-430	-0.1%
29	D, D	81	0.0%
30	AN, BN	22,818	4.4%
31	BN, D	5,898	1.1%
32	AN, W	111	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
33	W, W	-133	0.0%
34	D, C	398	0.1%
35	C, C	-48	0.0%
36	D, BN	5,357	0.9%
37	BN, AN	1,069	0.2%
38	W, W	6	0.0%
39	BN, D	-441	-0.1%
40	D, C	-96	0.0%
41	C, C	-116	0.0%
42	C, C	355	0.0%
<b>Average</b>		<b>1,065</b>	<b>0.2%</b>
<b>Maximum</b>		<b>22,818</b>	<b>4.4%</b>
<b>Minimum</b>		<b>-562</b>	<b>-0.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-139. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 13 (SR13) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	923	0.1%
2	W, W	245	0.0%
3	C, C	805	0.0%
4	C, C	20,811	0.9%
5	AN, W	11,318	0.7%
6	BN, AN	570	0.0%
7	AN, W	488	0.0%
8	D, D	11,900	0.6%
9	W, W	5,984	0.4%
10	W, W	1,193	0.1%
11	W, AN	687	0.0%
12	D, D	4,732	0.2%
13	W, W	279	0.0%
14	D, D	329	0.0%
15	C, C	25,308	1.2%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
16	D, C	18,299	0.8%
17	C, C	4,198	0.2%
18	C, C	4,178	0.2%
19	C, C	1,173	0.1%
20	AN, W	-3,133	-0.2%
21	C, C	3,634	0.2%
22	W, W	530	0.0%
23	W, W	691	0.0%
24	W, W	1,350	0.1%
25	W, W	2,900	0.2%
26	W, AN	409	0.0%
27	AN, AN	784	0.0%
28	D, D	1,354	0.1%
29	D, D	16,904	0.8%
30	AN, BN	2,108	0.1%
31	BN, D	-4,124	-0.2%
32	AN, W	-3,365	-0.2%
33	W, W	-1,044	-0.1%
34	D, C	-1,376	-0.1%
35	C, C	21,775	1.1%
36	D, BN	421	0.0%
37	BN, AN	-6,024	-0.4%
38	W, W	833	0.1%
39	BN, D	21	0.0%
40	D, C	-3,475	-0.2%
41	C, C	-8,078	-0.3%
42	C, C	-5,810	-0.2%
<b>Average</b>		<b>3,112</b>	<b>0.2%</b>
<b>Maximum</b>		<b>25,308</b>	<b>1.2%</b>
<b>Minimum</b>		<b>-8,078</b>	<b>-0.4%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-140. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 14 (SR14) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	380,136	174.8%
2	W, W	487,761	145.7%
3	C, C	193,807	29.7%
4	C, C	21,116	1.7%
5	AN, W	394,745	101.7%
6	BN, AN	362,828	75.9%
7	AN, W	354,481	144.7%
8	D, D	427,550	91.3%
9	W, W	376,288	128.1%
10	W, W	260,520	153.4%
11	W, AN	348,439	181.0%
12	D, D	414,411	82.7%
13	W, W	421,294	166.2%
14	D, D	261,879	51.7%
15	C, C	130,269	18.0%
16	D, C	185,133	24.6%
17	C, C	54,615	5.0%
18	C, C	-4,166	-0.3%
19	C, C	-4,396	-0.3%
20	AN, W	456,813	74.6%
21	C, C	356,275	44.1%
22	W, W	520,494	150.1%
23	W, W	552,595	198.9%
24	W, W	440,321	167.9%
25	W, W	407,816	193.0%
26	W, AN	467,993	194.7%
27	AN, AN	532,845	90.4%
28	D, D	290,886	38.3%
29	D, D	367,568	46.4%
30	AN, BN	476,674	73.6%
31	BN, D	451,398	62.7%
32	AN, W	493,869	142.1%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
33	W, W	390,641	178.8%
34	D, C	309,838	51.8%
35	C, C	248,739	28.7%
36	D, BN	121,160	10.1%
37	BN, AN	314,406	39.1%
38	W, W	395,438	137.9%
39	BN, D	392,696	89.7%
40	D, C	358,002	46.0%
41	C, C	79,152	6.5%
42	C, C	-3,966	-0.3%
<b>Average</b>		<b>321,152</b>	<b>86.7%</b>
<b>Maximum</b>		<b>552,595</b>	<b>198.9%</b>
<b>Minimum</b>		<b>-4,396</b>	<b>-0.3%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-141. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 15 (SR15) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	45,291	3.3%
2	W, W	64,237	4.6%
3	C, C	39,768	2.2%
4	C, C	11,209	0.6%
5	AN, W	42,581	3.2%
6	BN, AN	48,171	3.7%
7	AN, W	32,472	2.6%
8	D, D	63,555	3.9%
9	W, W	71,008	6.1%
10	W, W	41,649	3.8%
11	W, AN	72,556	5.0%
12	D, D	52,288	3.2%
13	W, W	39,009	3.2%
14	D, D	31,032	1.9%
15	C, C	34,722	1.9%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
16	D, C	42,948	2.4%
17	C, C	11,657	0.6%
18	C, C	15,973	0.9%
19	C, C	18,582	1.0%
20	AN, W	40,844	3.3%
21	C, C	40,535	2.5%
22	W, W	54,570	5.0%
23	W, W	46,812	3.6%
24	W, W	63,008	4.5%
25	W, W	44,041	4.4%
26	W, AN	53,660	3.9%
27	AN, AN	47,806	3.3%
28	D, D	23,810	1.5%
29	D, D	51,504	3.0%
30	AN, BN	50,911	3.3%
31	BN, D	41,756	2.5%
32	AN, W	49,717	4.1%
33	W, W	80,095	7.2%
34	D, C	49,509	2.9%
35	C, C	32,889	1.9%
36	D, BN	19,710	1.1%
37	BN, AN	53,103	3.4%
38	W, W	61,519	5.3%
39	BN, D	55,386	3.6%
40	D, C	34,296	1.8%
41	C, C	10,855	0.5%
42	C, C	25,512	1.3%
<b>Average</b>		<b>43,109</b>	<b>3.0%</b>
<b>Maximum</b>		<b>80,095</b>	<b>7.2%</b>
<b>Minimum</b>		<b>10,855</b>	<b>0.5%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-142. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 16 (SR16) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	-9	0.0%
2	W, W	0	0.0%
3	C, C	-116	0.0%
4	C, C	119	0.0%
5	AN, W	-18	0.0%
6	BN, AN	0	0.0%
7	AN, W	1	0.0%
8	D, D	1	0.0%
9	W, W	-4	0.0%
10	W, W	0	0.0%
11	W, AN	8	0.0%
12	D, D	1	0.0%
13	W, W	0	0.0%
14	D, D	39	0.0%
15	C, C	170	0.1%
16	D, C	-21	0.0%
17	C, C	106	0.0%
18	C, C	129	0.1%
19	C, C	67	0.0%
20	AN, W	-73	-0.1%
21	C, C	-18	0.0%
22	W, W	27	0.0%
23	W, W	-73	-0.1%
24	W, W	31	0.1%
25	W, W	0	0.0%
26	W, AN	0	0.0%
27	AN, AN	45	0.0%
28	D, D	20	0.0%
29	D, D	-6	0.0%
30	AN, BN	60	0.0%
31	BN, D	10	0.0%
32	AN, W	0	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
33	W, W	39	0.1%
34	D, C	170	0.1%
35	C, C	-30	0.0%
36	D, BN	140	0.1%
37	BN, AN	119	0.1%
38	W, W	-23	0.0%
39	BN, D	184	0.1%
40	D, C	181	0.1%
41	C, C	69	0.0%
42	C, C	15	0.0%
<b>Average</b>		<b>32</b>	<b>0.0%</b>
<b>Maximum</b>		<b>184</b>	<b>0.1%</b>
<b>Minimum</b>		<b>-116</b>	<b>-0.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-143. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 17 (SR17) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	16	0.0%
2	W, W	28	0.0%
3	C, C	90	0.0%
4	C, C	6	0.0%
5	AN, W	-10	0.0%
6	BN, AN	4	0.0%
7	AN, W	-34	0.0%
8	D, D	13	0.0%
9	W, W	36	0.0%
10	W, W	-27	0.0%
11	W, AN	83	0.0%
12	D, D	111	0.0%
13	W, W	-170	-0.1%
14	D, D	30	0.0%
15	C, C	-45	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
16	D, C	-7	0.0%
17	C, C	60	0.0%
18	C, C	-32	0.0%
19	C, C	-73	0.0%
20	AN, W	10	0.0%
21	C, C	116	0.0%
22	W, W	3	0.0%
23	W, W	-95	0.0%
24	W, W	127	0.0%
25	W, W	-44	0.0%
26	W, AN	63	0.0%
27	AN, AN	46	0.0%
28	D, D	133	0.0%
29	D, D	72	0.0%
30	AN, BN	116	0.0%
31	BN, D	133	0.0%
32	AN, W	62	0.0%
33	W, W	19	0.0%
34	D, C	-86	0.0%
35	C, C	-35	0.0%
36	D, BN	82	0.0%
37	BN, AN	116	0.0%
38	W, W	-31	0.0%
39	BN, D	86	0.0%
40	D, C	2	0.0%
41	C, C	8	0.0%
42	C, C	52	0.0%
<b>Average</b>		<b>25</b>	<b>0.0%</b>
<b>Maximum</b>		<b>133</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-170</b>	<b>-0.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-144. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 18 (SR18) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	1,010	0.1%
2	W, W	1,576	0.1%
3	C, C	9,575	0.5%
4	C, C	1,396	0.1%
5	AN, W	294	0.0%
6	BN, AN	1,186	0.1%
7	AN, W	909	0.1%
8	D, D	3,918	0.3%
9	W, W	3,087	0.3%
10	W, W	216	0.0%
11	W, AN	815	0.1%
12	D, D	2,837	0.2%
13	W, W	733	0.1%
14	D, D	7,818	0.5%
15	C, C	7,142	0.4%
16	D, C	8,082	0.5%
17	C, C	8,622	0.5%
18	C, C	4,586	0.3%
19	C, C	5,444	0.3%
20	AN, W	-431	0.0%
21	C, C	18,350	1.2%
22	W, W	2,138	0.3%
23	W, W	1,836	0.2%
24	W, W	1,962	0.2%
25	W, W	1,702	0.3%
26	W, AN	1,016	0.1%
27	AN, AN	2,488	0.2%
28	D, D	17,622	1.3%
29	D, D	8,981	0.6%
30	AN, BN	7,184	0.6%
31	BN, D	6,134	0.4%
32	AN, W	1,894	0.2%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
33	W, W	1,744	0.2%
34	D, C	7,858	0.5%
35	C, C	5,489	0.4%
36	D, BN	4,111	0.3%
37	BN, AN	833	0.1%
38	W, W	620	0.1%
39	BN, D	6,134	0.4%
40	D, C	6,422	0.4%
41	C, C	2,439	0.1%
42	C, C	1,828	0.1%
<b>Average</b>		<b>4,229</b>	<b>0.3%</b>
<b>Maximum</b>		<b>18,350</b>	<b>1.3%</b>
<b>Minimum</b>		<b>-431</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-145. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 19 (SR19) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	-2	0.0%
3	C, C	0	0.0%
4	C, C	-20	0.0%
5	AN, W	-33	0.0%
6	BN, AN	-18	0.0%
7	AN, W	22	0.0%
8	D, D	-36	0.0%
9	W, W	0	0.0%
10	W, W	0	0.0%
11	W, AN	74	0.0%
12	D, D	7	0.0%
13	W, W	-1	0.0%
14	D, D	34	0.0%
15	C, C	7	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
16	D, C	-1	0.0%
17	C, C	-42	0.0%
18	C, C	28	0.0%
19	C, C	0	0.0%
20	AN, W	0	0.0%
21	C, C	0	0.0%
22	W, W	0	0.0%
23	W, W	30	0.0%
24	W, W	100	0.0%
25	W, W	1	0.0%
26	W, AN	0	0.0%
27	AN, AN	0	0.0%
28	D, D	-16	0.0%
29	D, D	10	0.0%
30	AN, BN	0	0.0%
31	BN, D	0	0.0%
32	AN, W	0	0.0%
33	W, W	0	0.0%
34	D, C	-12	0.0%
35	C, C	-27	0.0%
36	D, BN	0	0.0%
37	BN, AN	0	0.0%
38	W, W	-13	0.0%
39	BN, D	0	0.0%
40	D, C	0	0.0%
41	C, C	-43	0.0%
42	C, C	0	0.0%
<b>Average</b>		<b>1</b>	<b>0.0%</b>
<b>Maximum</b>		<b>100</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-43</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-146. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 20 (SR20) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	0	0.0%
3	C, C	23	0.0%
4	C, C	2	0.0%
5	AN, W	0	0.0%
6	BN, AN	-4	0.0%
7	AN, W	-134	0.0%
8	D, D	-2	0.0%
9	W, W	3	0.0%
10	W, W	0	0.0%
11	W, AN	-3	0.0%
12	D, D	-24	0.0%
13	W, W	0	0.0%
14	D, D	13	0.0%
15	C, C	-120	0.0%
16	D, C	21	0.0%
17	C, C	58	0.0%
18	C, C	15	0.0%
19	C, C	114	0.0%
20	AN, W	-65	0.0%
21	C, C	-13	0.0%
22	W, W	-15	0.0%
23	W, W	-23	0.0%
24	W, W	-43	0.0%
25	W, W	-27	0.0%
26	W, AN	-1	0.0%
27	AN, AN	0	0.0%
28	D, D	29	0.0%
29	D, D	-10	0.0%
30	AN, BN	-18	0.0%
31	BN, D	44	0.0%
32	AN, W	101	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
33	W, W	-205	0.0%
34	D, C	-286	0.0%
35	C, C	92	0.0%
36	D, BN	-13	0.0%
37	BN, AN	-3	0.0%
38	W, W	-41	0.0%
39	BN, D	-19	0.0%
40	D, C	-35	0.0%
41	C, C	-1	0.0%
42	C, C	-34	0.0%
<b>Average</b>		<b>-15</b>	<b>0.0%</b>
<b>Maximum</b>		<b>114</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-286</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-147. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 21 (SR21) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	-12	0.0%
2	W, W	21	0.0%
3	C, C	-129	0.0%
4	C, C	-74	0.0%
5	AN, W	-112	0.0%
6	BN, AN	-76	0.0%
7	AN, W	-60	0.0%
8	D, D	37	0.0%
9	W, W	30	0.0%
10	W, W	0	0.0%
11	W, AN	9	0.0%
12	D, D	0	0.0%
13	W, W	-64	0.0%
14	D, D	-45	0.0%
15	C, C	290	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
16	D, C	119	0.0%
17	C, C	-176	0.0%
18	C, C	66	0.0%
19	C, C	-126	0.0%
20	AN, W	-108	0.0%
21	C, C	84	0.0%
22	W, W	1	0.0%
23	W, W	45	0.0%
24	W, W	53	0.0%
25	W, W	2	0.0%
26	W, AN	-176	0.0%
27	AN, AN	171	0.0%
28	D, D	1	0.0%
29	D, D	9	0.0%
30	AN, BN	18	0.0%
31	BN, D	-3	0.0%
32	AN, W	-194	0.0%
33	W, W	103	0.0%
34	D, C	-56	0.0%
35	C, C	36	0.0%
36	D, BN	32	0.0%
37	BN, AN	97	0.0%
38	W, W	135	0.0%
39	BN, D	-51	0.0%
40	D, C	2	0.0%
41	C, C	-24	0.0%
42	C, C	14	0.0%
<b>Average</b>		<b>-3</b>	<b>0.0%</b>
<b>Maximum</b>		<b>290</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-194</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

### I-1.1.8 Changes in Groundwater Pumping, Alternative 4 Compared to No Action Alternative

Table I.1-148 through Table I.1-168 provide the annual simulated groundwater pumping through the model simulation period for each of the 21 model subregions for Alternative 4 compared to the No Action Alternative.

Table I.1-148. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 1 (SR1) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	-12	0.0%
2	W, W	-68	-0.1%
3	C, C	-36	-0.1%
4	C, C	3,372	4.4%
5	AN, W	-511	-0.9%
6	BN, AN	-341	-0.6%
7	AN, W	-224	-0.4%
8	D, D	-315	-0.5%
9	W, W	-162	-0.3%
10	W, W	3	0.0%
11	W, AN	-88	-0.1%
12	D, D	277	0.4%
13	W, W	59	0.1%
14	D, D	147	0.2%
15	C, C	3,124	4.2%
16	D, C	505	0.7%
17	C, C	-1,971	-2.8%
18	C, C	2,772	3.4%
19	C, C	-837	-1.0%
20	AN, W	-168	-0.3%
21	C, C	1,178	1.7%
22	W, W	392	0.6%
23	W, W	-104	-0.2%
24	W, W	-93	-0.2%
25	W, W	52	0.1%
26	W, AN	-21	0.0%
27	AN, AN	-38	-0.1%
28	D, D	101	0.2%
29	D, D	24	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
30	AN, BN	43	0.1%
31	BN, D	-118	-0.2%
32	AN, W	-58	-0.1%
33	W, W	-54	-0.1%
34	D, C	-24	0.0%
35	C, C	782	1.1%
36	D, BN	-716	-1.0%
37	BN, AN	-272	-0.5%
38	W, W	-22	0.0%
39	BN, D	9	0.0%
40	D, C	1,431	2.1%
41	C, C	4,838	5.6%
42	C, C	2,802	3.1%
<b>Average</b>		<b>373</b>	<b>0.4%</b>
<b>Maximum</b>		<b>4,838</b>	<b>5.6%</b>
<b>Minimum</b>		<b>-1,971</b>	<b>-2.8%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-149. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 2 (SR2) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	3	0.0%
2	W, W	0	0.0%
3	C, C	-39	0.0%
4	C, C	3,381	0.5%
5	AN, W	590	0.1%
6	BN, AN	-2,249	-0.4%
7	AN, W	-459	-0.1%
8	D, D	-1,400	-0.3%
9	W, W	-168	0.0%
10	W, W	-6	0.0%
11	W, AN	4	0.0%
12	D, D	249	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
13	W, W	583	0.1%
14	D, D	566	0.1%
15	C, C	9,127	1.5%
16	D, C	-721	-0.1%
17	C, C	-2,109	-0.4%
18	C, C	3,912	0.7%
19	C, C	-328	-0.1%
20	AN, W	-155	0.0%
21	C, C	4,752	0.9%
22	W, W	1,296	0.3%
23	W, W	5	0.0%
24	W, W	4	0.0%
25	W, W	0	0.0%
26	W, AN	-14	0.0%
27	AN, AN	-5	0.0%
28	D, D	460	0.1%
29	D, D	-200	0.0%
30	AN, BN	-13	0.0%
31	BN, D	1	0.0%
32	AN, W	20	0.0%
33	W, W	-23	0.0%
34	D, C	106	0.0%
35	C, C	1,752	0.3%
36	D, BN	-1,438	-0.2%
37	BN, AN	-288	-0.1%
38	W, W	0	0.0%
39	BN, D	-7	0.0%
40	D, C	3,081	0.5%
41	C, C	3,985	0.6%
42	C, C	2,233	0.4%
<b>Average</b>		<b>631</b>	<b>0.1%</b>
<b>Maximum</b>		<b>9,127</b>	<b>1.5%</b>
<b>Minimum</b>		<b>-2,249</b>	<b>-0.4%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.

Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-150. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 3 (SR3) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	-27	0.0%
2	W, W	11	0.0%
3	C, C	-231	-0.1%
4	C, C	48,039	8.3%
5	AN, W	4,816	1.4%
6	BN, AN	-11,768	-3.1%
7	AN, W	-2,271	-0.7%
8	D, D	-7,932	-2.2%
9	W, W	-860	-0.3%
10	W, W	0	0.0%
11	W, AN	0	0.0%
12	D, D	1,408	0.4%
13	W, W	7,652	2.3%
14	D, D	3,779	0.9%
15	C, C	49,287	11.0%
16	D, C	-5,756	-1.4%
17	C, C	-20,278	-4.3%
18	C, C	58,439	11.0%
19	C, C	-15,004	-2.5%
20	AN, W	-1,523	-0.5%
21	C, C	26,739	6.7%
22	W, W	5,581	1.7%
23	W, W	27	0.0%
24	W, W	10	0.0%
25	W, W	13	0.0%
26	W, AN	65	0.0%
27	AN, AN	5	0.0%
28	D, D	2,257	0.6%
29	D, D	-6,717	-1.9%
30	AN, BN	-462	-0.2%
31	BN, D	12	0.0%
32	AN, W	-13	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
33	W, W	0	0.0%
34	D, C	1,739	0.5%
35	C, C	10,083	2.5%
36	D, BN	-7,949	-1.8%
37	BN, AN	-714	-0.3%
38	W, W	0	0.0%
39	BN, D	-39	0.0%
40	D, C	15,578	3.8%
41	C, C	46,585	8.0%
42	C, C	54,442	9.2%
<b>Average</b>		<b>6,072</b>	<b>1.2%</b>
<b>Maximum</b>		<b>58,439</b>	<b>11.0%</b>
<b>Minimum</b>		<b>-20,278</b>	<b>-4.3%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-151. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 4 (SR4) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	0	0.0%
3	C, C	-1	0.0%
4	C, C	13,965	3.7%
5	AN, W	0	0.0%
6	BN, AN	994	0.3%
7	AN, W	-7,233	-2.2%
8	D, D	-408	-0.1%
9	W, W	10,922	3.6%
10	W, W	0	0.0%
11	W, AN	10	0.0%
12	D, D	2	0.0%
13	W, W	11	0.0%
14	D, D	16	0.0%
15	C, C	62	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
16	D, C	159	0.0%
17	C, C	-8,291	-2.6%
18	C, C	17,244	5.2%
19	C, C	-11,156	-3.1%
20	AN, W	110	0.0%
21	C, C	272	0.1%
22	W, W	10	0.0%
23	W, W	-11	0.0%
24	W, W	-37	0.0%
25	W, W	0	0.0%
26	W, AN	1	0.0%
27	AN, AN	2,510	0.8%
28	D, D	22	0.0%
29	D, D	-5	0.0%
30	AN, BN	16	0.0%
31	BN, D	-488	-0.1%
32	AN, W	0	0.0%
33	W, W	0	0.0%
34	D, C	2	0.0%
35	C, C	-16	0.0%
36	D, BN	-1,079	-0.3%
37	BN, AN	-43	0.0%
38	W, W	-442	-0.1%
39	BN, D	32	0.0%
40	D, C	41	0.0%
41	C, C	16,265	4.3%
42	C, C	16,306	4.4%
<b>Average</b>		<b>1,185</b>	<b>0.3%</b>
<b>Maximum</b>		<b>17,244</b>	<b>5.2%</b>
<b>Minimum</b>		<b>-11,156</b>	<b>-3.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-152. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 5 (SR5) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	-75	0.0%
2	W, W	-71	0.0%
3	C, C	-122	0.0%
4	C, C	-99	0.0%
5	AN, W	-1,431	-0.3%
6	BN, AN	-1,036	-0.3%
7	AN, W	-159	0.0%
8	D, D	-559	-0.1%
9	W, W	302	0.1%
10	W, W	144	0.0%
11	W, AN	-49	0.0%
12	D, D	-322	-0.1%
13	W, W	162	0.0%
14	D, D	144	0.0%
15	C, C	3,860	0.8%
16	D, C	-10,871	-2.4%
17	C, C	624	0.2%
18	C, C	-590	-0.1%
19	C, C	-551	-0.1%
20	AN, W	2,047	0.5%
21	C, C	1,950	0.4%
22	W, W	532	0.1%
23	W, W	39	0.0%
24	W, W	25	0.0%
25	W, W	90	0.0%
26	W, AN	-1	0.0%
27	AN, AN	166	0.0%
28	D, D	169	0.0%
29	D, D	112	0.0%
30	AN, BN	80	0.0%
31	BN, D	55	0.0%
32	AN, W	87	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
33	W, W	-159	0.0%
34	D, C	191	0.0%
35	C, C	834	0.2%
36	D, BN	-686	-0.1%
37	BN, AN	-102	0.0%
38	W, W	-29	0.0%
39	BN, D	167	0.0%
40	D, C	1,085	0.2%
41	C, C	363	0.1%
42	C, C	-603	-0.1%
<b>Average</b>		<b>-102</b>	<b>0.0%</b>
<b>Maximum</b>		<b>3,860</b>	<b>0.8%</b>
<b>Minimum</b>		<b>-10,871</b>	<b>-2.4%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-153. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 6 (SR6) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	-141	0.0%
2	W, W	1,216	0.2%
3	C, C	149	0.0%
4	C, C	-61	0.0%
5	AN, W	139	0.0%
6	BN, AN	-81	0.0%
7	AN, W	-327	-0.1%
8	D, D	-220	0.0%
9	W, W	-164	0.0%
10	W, W	0	0.0%
11	W, AN	-414	-0.1%
12	D, D	1,216	0.2%
13	W, W	395	0.1%
14	D, D	-1,462	-0.2%
15	C, C	798	0.1%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
16	D, C	-584	-0.1%
17	C, C	-5,562	-0.7%
18	C, C	-1,564	-0.2%
19	C, C	-113	0.0%
20	AN, W	330	0.0%
21	C, C	-12	0.0%
22	W, W	151	0.0%
23	W, W	351	0.1%
24	W, W	-263	0.0%
25	W, W	291	0.0%
26	W, AN	134	0.0%
27	AN, AN	319	0.0%
28	D, D	591	0.1%
29	D, D	-23	0.0%
30	AN, BN	1,459	0.2%
31	BN, D	-132	0.0%
32	AN, W	0	0.0%
33	W, W	172	0.0%
34	D, C	-604	-0.1%
35	C, C	181	0.0%
36	D, BN	1,001	0.1%
37	BN, AN	-36	0.0%
38	W, W	304	0.0%
39	BN, D	-61	0.0%
40	D, C	485	0.1%
41	C, C	-1,608	-0.2%
42	C, C	-67	0.0%
<b>Average</b>		<b>-91</b>	<b>0.0%</b>
<b>Maximum</b>		<b>1,459</b>	<b>0.2%</b>
<b>Minimum</b>		<b>-5,562</b>	<b>-0.7%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-154. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 7 (SR7) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	911	0.3%
2	W, W	-18	0.0%
3	C, C	-19	0.0%
4	C, C	-4,824	-1.1%
5	AN, W	-640	-0.2%
6	BN, AN	895	0.2%
7	AN, W	320	0.1%
8	D, D	-381	-0.1%
9	W, W	-1,018	-0.3%
10	W, W	-1,256	-0.4%
11	W, AN	-175	0.0%
12	D, D	118	0.0%
13	W, W	769	0.2%
14	D, D	-1,145	-0.3%
15	C, C	30	0.0%
16	D, C	-61	0.0%
17	C, C	-4,407	-1.2%
18	C, C	-4,166	-1.1%
19	C, C	-6,542	-1.7%
20	AN, W	-853	-0.2%
21	C, C	-372	-0.1%
22	W, W	-49	0.0%
23	W, W	111	0.0%
24	W, W	-342	-0.1%
25	W, W	2,714	0.8%
26	W, AN	99	0.0%
27	AN, AN	586	0.1%
28	D, D	14	0.0%
29	D, D	-515	-0.1%
30	AN, BN	-128	0.0%
31	BN, D	14	0.0%
32	AN, W	223	0.1%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
33	W, W	-667	-0.2%
34	D, C	-325	-0.1%
35	C, C	-755	-0.2%
36	D, BN	247	0.1%
37	BN, AN	-376	-0.1%
38	W, W	-77	0.0%
39	BN, D	-5	0.0%
40	D, C	92	0.0%
41	C, C	-5,765	-1.4%
42	C, C	-4,982	-1.2%
<b>Average</b>		<b>-779</b>	<b>-0.2%</b>
<b>Maximum</b>		<b>2,714</b>	<b>0.8%</b>
<b>Minimum</b>		<b>-6,542</b>	<b>-1.7%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-155. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 8 (SR8) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	-510	-0.1%
2	W, W	-134	0.0%
3	C, C	-365	0.0%
4	C, C	-187	0.0%
5	AN, W	-309	0.0%
6	BN, AN	-89	0.0%
7	AN, W	488	0.1%
8	D, D	-202	0.0%
9	W, W	440	0.1%
10	W, W	-169	0.0%
11	W, AN	-98	0.0%
12	D, D	-338	0.0%
13	W, W	-380	0.0%
14	D, D	153	0.0%
15	C, C	209	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
16	D, C	341	0.0%
17	C, C	-7	0.0%
18	C, C	-75	0.0%
19	C, C	65	0.0%
20	AN, W	-45	0.0%
21	C, C	-1,090	-0.1%
22	W, W	132	0.0%
23	W, W	-60	0.0%
24	W, W	-1,401	-0.1%
25	W, W	142	0.0%
26	W, AN	73	0.0%
27	AN, AN	181	0.0%
28	D, D	-10	0.0%
29	D, D	55	0.0%
30	AN, BN	20	0.0%
31	BN, D	389	0.0%
32	AN, W	-495	-0.1%
33	W, W	-769	-0.1%
34	D, C	169	0.0%
35	C, C	-138	0.0%
36	D, BN	58	0.0%
37	BN, AN	174	0.0%
38	W, W	-147	0.0%
39	BN, D	684	0.1%
40	D, C	-36	0.0%
41	C, C	-30	0.0%
42	C, C	140	0.0%
<b>Average</b>		<b>-75</b>	<b>0.0%</b>
<b>Maximum</b>		<b>684</b>	<b>0.1%</b>
<b>Minimum</b>		<b>-1,401</b>	<b>-0.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-156. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 9 (SR9) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	76	0.0%
2	W, W	-141	0.0%
3	C, C	-46	0.0%
4	C, C	272	0.0%
5	AN, W	-31	0.0%
6	BN, AN	-524	-0.1%
7	AN, W	-284	-0.1%
8	D, D	586	0.1%
9	W, W	485	0.1%
10	W, W	-45	0.0%
11	W, AN	-715	-0.1%
12	D, D	1,254	0.2%
13	W, W	556	0.1%
14	D, D	136	0.0%
15	C, C	2,108	0.4%
16	D, C	1,310	0.2%
17	C, C	85	0.0%
18	C, C	40	0.0%
19	C, C	-1,318	-0.2%
20	AN, W	-3,486	-0.7%
21	C, C	-1,013	-0.2%
22	W, W	-161	0.0%
23	W, W	-103	0.0%
24	W, W	-2,841	-0.6%
25	W, W	12	0.0%
26	W, AN	-359	-0.1%
27	AN, AN	-277	-0.1%
28	D, D	260	0.0%
29	D, D	979	0.2%
30	AN, BN	-1,763	-0.4%
31	BN, D	-2,198	-0.4%
32	AN, W	-250	-0.1%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
33	W, W	-320	-0.1%
34	D, C	619	0.1%
35	C, C	834	0.2%
36	D, BN	1,116	0.2%
37	BN, AN	465	0.1%
38	W, W	-86	0.0%
39	BN, D	-563	-0.1%
40	D, C	1,568	0.3%
41	C, C	370	0.1%
42	C, C	-84	0.0%
<b>Average</b>		<b>-83</b>	<b>0.0%</b>
<b>Maximum</b>		<b>2,108</b>	<b>0.4%</b>
<b>Minimum</b>		<b>-3,486</b>	<b>-0.7%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-157. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 10 (SR10) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	-1,657	-0.6%
2	W, W	-2,478	-0.7%
3	C, C	1,031	0.2%
4	C, C	-89,705	-11.1%
5	AN, W	-1,680	-0.5%
6	BN, AN	-7,628	-1.9%
7	AN, W	-2,163	-0.7%
8	D, D	9,587	2.2%
9	W, W	2,992	1.0%
10	W, W	222	0.1%
11	W, AN	-8,022	-2.6%
12	D, D	15,569	3.5%
13	W, W	6,853	2.2%
14	D, D	3,246	0.7%
15	C, C	27,116	5.2%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
16	D, C	6,247	1.2%
17	C, C	1,589	0.3%
18	C, C	-12,689	-1.7%
19	C, C	-11,877	-1.6%
20	AN, W	-32,922	-7.9%
21	C, C	-11,500	-2.1%
22	W, W	-842	-0.2%
23	W, W	-759	-0.2%
24	W, W	-8,540	-2.8%
25	W, W	34	0.0%
26	W, AN	-4,034	-1.4%
27	AN, AN	-836	-0.2%
28	D, D	3,424	0.7%
29	D, D	11,977	2.6%
30	AN, BN	-13,898	-3.2%
31	BN, D	-12,880	-2.7%
32	AN, W	-4,127	-1.4%
33	W, W	-3,933	-1.4%
34	D, C	3,839	0.9%
35	C, C	13,762	2.8%
36	D, BN	11,928	2.1%
37	BN, AN	2,589	0.6%
38	W, W	-81	0.0%
39	BN, D	-15,349	-4.0%
40	D, C	15,095	3.3%
41	C, C	-50,838	-6.6%
42	C, C	-1,391	-0.2%
<b>Average</b>		<b>-3,875</b>	<b>-0.6%</b>
<b>Maximum</b>		<b>27,116</b>	<b>5.2%</b>
<b>Minimum</b>		<b>-89,705</b>	<b>-11.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-158. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 11 (SR11) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	-18	0.0%
2	W, W	-33	0.0%
3	C, C	-3,195	-0.8%
4	C, C	-241	0.0%
5	AN, W	4	0.0%
6	BN, AN	-17	0.0%
7	AN, W	10	0.0%
8	D, D	-3,290	-0.9%
9	W, W	-64	0.0%
10	W, W	7	0.0%
11	W, AN	30	0.0%
12	D, D	-46	0.0%
13	W, W	30	0.0%
14	D, D	-14	0.0%
15	C, C	-15	0.0%
16	D, C	-55	0.0%
17	C, C	-99	0.0%
18	C, C	-98	0.0%
19	C, C	-5	0.0%
20	AN, W	1,627	0.5%
21	C, C	11	0.0%
22	W, W	-147	0.0%
23	W, W	106	0.0%
24	W, W	9,805	3.0%
25	W, W	7,613	3.1%
26	W, AN	-155	-0.1%
27	AN, AN	-5	0.0%
28	D, D	151	0.0%
29	D, D	97	0.0%
30	AN, BN	95	0.0%
31	BN, D	-7	0.0%
32	AN, W	12,369	4.6%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
33	W, W	160	0.1%
34	D, C	-261	-0.1%
35	C, C	64	0.0%
36	D, BN	31	0.0%
37	BN, AN	-37	0.0%
38	W, W	-9	0.0%
39	BN, D	69	0.0%
40	D, C	219	0.1%
41	C, C	-102	0.0%
42	C, C	-127	0.0%
<b>Average</b>		<b>582</b>	<b>0.2%</b>
<b>Maximum</b>		<b>12,369</b>	<b>4.6%</b>
<b>Minimum</b>		<b>-3,290</b>	<b>-0.9%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-159. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 12 (SR12) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	-28	0.0%
2	W, W	-73	0.0%
3	C, C	-131	0.0%
4	C, C	18	0.0%
5	AN, W	78	0.0%
6	BN, AN	-20	0.0%
7	AN, W	79	0.0%
8	D, D	1	0.0%
9	W, W	8	0.0%
10	W, W	0	0.0%
11	W, AN	-186	0.0%
12	D, D	-254	0.0%
13	W, W	4	0.0%
14	D, D	-16	0.0%
15	C, C	-104	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
16	D, C	276	0.0%
17	C, C	-7	0.0%
18	C, C	-66	0.0%
19	C, C	60	0.0%
20	AN, W	4,542	0.7%
21	C, C	-933	-0.1%
22	W, W	-722	-0.2%
23	W, W	-134	0.0%
24	W, W	0	0.0%
25	W, W	40	0.0%
26	W, AN	-18	0.0%
27	AN, AN	90	0.0%
28	D, D	-21	0.0%
29	D, D	-4	0.0%
30	AN, BN	89	0.0%
31	BN, D	26	0.0%
32	AN, W	176	0.0%
33	W, W	-97	0.0%
34	D, C	-81	0.0%
35	C, C	115	0.0%
36	D, BN	-9	0.0%
37	BN, AN	49	0.0%
38	W, W	-129	0.0%
39	BN, D	-269	0.0%
40	D, C	-202	0.0%
41	C, C	-702	-0.1%
42	C, C	297	0.0%
<b>Average</b>		<b>41</b>	<b>0.0%</b>
<b>Maximum</b>		<b>4,542</b>	<b>0.7%</b>
<b>Minimum</b>		<b>-933</b>	<b>-0.2%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-160. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 13 (SR13) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	357	0.0%
2	W, W	-303	0.0%
3	C, C	-250	0.0%
4	C, C	-8,167	-0.3%
5	AN, W	184	0.0%
6	BN, AN	-241	0.0%
7	AN, W	-139	0.0%
8	D, D	137	0.0%
9	W, W	-66	0.0%
10	W, W	0	0.0%
11	W, AN	-91	0.0%
12	D, D	134	0.0%
13	W, W	-84	0.0%
14	D, D	-173	0.0%
15	C, C	197	0.0%
16	D, C	201	0.0%
17	C, C	-455	0.0%
18	C, C	-1,088	-0.1%
19	C, C	-89	0.0%
20	AN, W	7	0.0%
21	C, C	296	0.0%
22	W, W	35	0.0%
23	W, W	203	0.0%
24	W, W	-76	0.0%
25	W, W	-198	0.0%
26	W, AN	-69	0.0%
27	AN, AN	25	0.0%
28	D, D	219	0.0%
29	D, D	-202	0.0%
30	AN, BN	16	0.0%
31	BN, D	-15	0.0%
32	AN, W	-139	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
33	W, W	-128	0.0%
34	D, C	569	0.0%
35	C, C	-150	0.0%
36	D, BN	170	0.0%
37	BN, AN	334	0.0%
38	W, W	344	0.0%
39	BN, D	-117	0.0%
40	D, C	-398	0.0%
41	C, C	-5,056	-0.2%
42	C, C	-502	0.0%
<b>Average</b>		<b>-352</b>	<b>0.0%</b>
<b>Maximum</b>		<b>569</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-8,167</b>	<b>-0.3%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-161. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 14 (SR14) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	-3,023	-1.4%
2	W, W	-8,569	-2.6%
3	C, C	9,021	1.4%
4	C, C	15,340	1.2%
5	AN, W	-1,686	-0.4%
6	BN, AN	-11,458	-2.4%
7	AN, W	-3,271	-1.3%
8	D, D	30,728	6.6%
9	W, W	10,011	3.4%
10	W, W	6	0.0%
11	W, AN	-6,811	-3.5%
12	D, D	54,919	11.0%
13	W, W	14,841	5.9%
14	D, D	7,282	1.4%
15	C, C	83,251	11.5%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
16	D, C	21,450	2.9%
17	C, C	4,250	0.4%
18	C, C	-1,220	-0.1%
19	C, C	-36,876	-2.8%
20	AN, W	-102,122	-16.7%
21	C, C	-40,369	-5.0%
22	W, W	-15,206	-4.4%
23	W, W	-45	0.0%
24	W, W	-42,942	-16.4%
25	W, W	-5,186	-2.5%
26	W, AN	-8,924	-3.7%
27	AN, AN	-1,610	-0.3%
28	D, D	11,814	1.6%
29	D, D	36,738	4.6%
30	AN, BN	4,127	0.6%
31	BN, D	53,387	7.4%
32	AN, W	-19,284	-5.5%
33	W, W	-5,381	-2.5%
34	D, C	30,215	5.1%
35	C, C	43,985	5.1%
36	D, BN	46,476	3.9%
37	BN, AN	9,554	1.2%
38	W, W	370	0.1%
39	BN, D	-39,816	-9.1%
40	D, C	52,307	6.7%
41	C, C	39,119	3.2%
42	C, C	-508	0.0%
<b>Average</b>		<b>5,354</b>	<b>0.1%</b>
<b>Maximum</b>		<b>83,251</b>	<b>11.5%</b>
<b>Minimum</b>		<b>-102,122</b>	<b>-16.7%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-162. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 15 (SR15) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	-3,550	-0.3%
2	W, W	-1,572	-0.1%
3	C, C	-3,531	-0.2%
4	C, C	-9,167	-0.5%
5	AN, W	-3,179	-0.2%
6	BN, AN	-6,010	-0.5%
7	AN, W	-3,184	-0.3%
8	D, D	395	0.0%
9	W, W	-5,492	-0.5%
10	W, W	-43	0.0%
11	W, AN	-865	-0.1%
12	D, D	-392	0.0%
13	W, W	774	0.1%
14	D, D	-3,551	-0.2%
15	C, C	5,645	0.3%
16	D, C	-4,233	-0.2%
17	C, C	579	0.0%
18	C, C	-8,063	-0.5%
19	C, C	-1,604	-0.1%
20	AN, W	-4,446	-0.4%
21	C, C	147	0.0%
22	W, W	242	0.0%
23	W, W	-6,437	-0.5%
24	W, W	-2,726	-0.2%
25	W, W	-1,336	-0.1%
26	W, AN	921	0.1%
27	AN, AN	-5,515	-0.4%
28	D, D	-5,389	-0.3%
29	D, D	-3,421	-0.2%
30	AN, BN	472	0.0%
31	BN, D	-14,687	-0.9%
32	AN, W	-2,391	-0.2%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
33	W, W	-360	0.0%
34	D, C	-5,973	-0.3%
35	C, C	-1,082	-0.1%
36	D, BN	-1,282	-0.1%
37	BN, AN	-2,378	-0.2%
38	W, W	-6,127	-0.5%
39	BN, D	-3,295	-0.2%
40	D, C	-678	0.0%
41	C, C	-3,654	-0.2%
42	C, C	-2,549	-0.1%
<b>Average</b>		<b>-2,833</b>	<b>-0.2%</b>
<b>Maximum</b>		<b>5,645</b>	<b>0.3%</b>
<b>Minimum</b>		<b>-14,687</b>	<b>-0.9%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-163. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 16 (SR16) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	-2	0.0%
3	C, C	16	0.0%
4	C, C	-6	0.0%
5	AN, W	-41	0.0%
6	BN, AN	0	0.0%
7	AN, W	1	0.0%
8	D, D	2	0.0%
9	W, W	-56	-0.1%
10	W, W	0	0.0%
11	W, AN	8	0.0%
12	D, D	-12	0.0%
13	W, W	0	0.0%
14	D, D	67	0.0%
15	C, C	-62	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
16	D, C	-24	0.0%
17	C, C	48	0.0%
18	C, C	37	0.0%
19	C, C	-111	-0.1%
20	AN, W	-39	-0.1%
21	C, C	22	0.0%
22	W, W	10	0.0%
23	W, W	0	0.0%
24	W, W	14	0.0%
25	W, W	0	0.0%
26	W, AN	-7	0.0%
27	AN, AN	0	0.0%
28	D, D	5	0.0%
29	D, D	-51	0.0%
30	AN, BN	117	0.1%
31	BN, D	-34	0.0%
32	AN, W	-20	0.0%
33	W, W	39	0.1%
34	D, C	15	0.0%
35	C, C	-105	-0.1%
36	D, BN	57	0.0%
37	BN, AN	-36	0.0%
38	W, W	20	0.0%
39	BN, D	35	0.0%
40	D, C	-75	0.0%
41	C, C	56	0.0%
42	C, C	-6	0.0%
<b>Average</b>		<b>-3</b>	<b>0.0%</b>
<b>Maximum</b>		<b>117</b>	<b>0.1%</b>
<b>Minimum</b>		<b>-111</b>	<b>-0.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-164. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 17 (SR17) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	-141	-0.1%
2	W, W	-9	0.0%
3	C, C	-2	0.0%
4	C, C	-5	0.0%
5	AN, W	-5	0.0%
6	BN, AN	-40	0.0%
7	AN, W	-7	0.0%
8	D, D	-61	0.0%
9	W, W	9	0.0%
10	W, W	5	0.0%
11	W, AN	-10	0.0%
12	D, D	-11	0.0%
13	W, W	-159	-0.1%
14	D, D	58	0.0%
15	C, C	-227	0.0%
16	D, C	18	0.0%
17	C, C	39	0.0%
18	C, C	-5	0.0%
19	C, C	-113	0.0%
20	AN, W	12	0.0%
21	C, C	-100	0.0%
22	W, W	1	0.0%
23	W, W	-60	0.0%
24	W, W	-67	0.0%
25	W, W	17	0.0%
26	W, AN	4	0.0%
27	AN, AN	-49	0.0%
28	D, D	-135	0.0%
29	D, D	-7	0.0%
30	AN, BN	-116	0.0%
31	BN, D	90	0.0%
32	AN, W	35	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
33	W, W	-18	0.0%
34	D, C	-197	0.0%
35	C, C	25	0.0%
36	D, BN	62	0.0%
37	BN, AN	113	0.0%
38	W, W	-14	0.0%
39	BN, D	8	0.0%
40	D, C	3	0.0%
41	C, C	-14	0.0%
42	C, C	26	0.0%
<b>Average</b>		<b>-25</b>	<b>0.0%</b>
<b>Maximum</b>		<b>113</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-227</b>	<b>-0.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-165. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 18 (SR18) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	-159	0.0%
2	W, W	176	0.0%
3	C, C	-4	0.0%
4	C, C	-108	0.0%
5	AN, W	8	0.0%
6	BN, AN	21	0.0%
7	AN, W	-231	0.0%
8	D, D	-223	0.0%
9	W, W	-99	0.0%
10	W, W	-68	0.0%
11	W, AN	-95	0.0%
12	D, D	75	0.0%
13	W, W	0	0.0%
14	D, D	46	0.0%
15	C, C	-13	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
16	D, C	327	0.0%
17	C, C	-215	0.0%
18	C, C	104	0.0%
19	C, C	144	0.0%
20	AN, W	-82	0.0%
21	C, C	-35	0.0%
22	W, W	-5	0.0%
23	W, W	47	0.0%
24	W, W	-25	0.0%
25	W, W	-146	0.0%
26	W, AN	-169	0.0%
27	AN, AN	-99	0.0%
28	D, D	-323	0.0%
29	D, D	9	0.0%
30	AN, BN	-241	0.0%
31	BN, D	-261	0.0%
32	AN, W	77	0.0%
33	W, W	-386	0.0%
34	D, C	222	0.0%
35	C, C	-131	0.0%
36	D, BN	-40	0.0%
37	BN, AN	-42	0.0%
38	W, W	-35	0.0%
39	BN, D	-19	0.0%
40	D, C	-95	0.0%
41	C, C	302	0.0%
42	C, C	-150	0.0%
<b>Average</b>		<b>-46</b>	<b>0.0%</b>
<b>Maximum</b>		<b>327</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-386</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-166. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 19 (SR19) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	-33	0.0%
2	W, W	0	0.0%
3	C, C	0	0.0%
4	C, C	-20	0.0%
5	AN, W	-33	0.0%
6	BN, AN	-1	0.0%
7	AN, W	22	0.0%
8	D, D	-14	0.0%
9	W, W	0	0.0%
10	W, W	0	0.0%
11	W, AN	79	0.0%
12	D, D	-30	0.0%
13	W, W	-12	0.0%
14	D, D	22	0.0%
15	C, C	39	0.0%
16	D, C	-1	0.0%
17	C, C	0	0.0%
18	C, C	26	0.0%
19	C, C	0	0.0%
20	AN, W	0	0.0%
21	C, C	2	0.0%
22	W, W	0	0.0%
23	W, W	30	0.0%
24	W, W	100	0.0%
25	W, W	-23	0.0%
26	W, AN	-6	0.0%
27	AN, AN	0	0.0%
28	D, D	10	0.0%
29	D, D	10	0.0%
30	AN, BN	0	0.0%
31	BN, D	18	0.0%
32	AN, W	0	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
33	W, W	0	0.0%
34	D, C	-69	0.0%
35	C, C	0	0.0%
36	D, BN	-4	0.0%
37	BN, AN	-2	0.0%
38	W, W	0	0.0%
39	BN, D	0	0.0%
40	D, C	0	0.0%
41	C, C	0	0.0%
42	C, C	-32	0.0%
<b>Average</b>		<b>2</b>	<b>0.0%</b>
<b>Maximum</b>		<b>100</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-69</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-167. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 20 (SR20) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	0	0.0%
3	C, C	0	0.0%
4	C, C	0	0.0%
5	AN, W	0	0.0%
6	BN, AN	0	0.0%
7	AN, W	0	0.0%
8	D, D	0	0.0%
9	W, W	0	0.0%
10	W, W	0	0.0%
11	W, AN	0	0.0%
12	D, D	-16	0.0%
13	W, W	0	0.0%
14	D, D	0	0.0%
15	C, C	-36	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
16	D, C	96	0.0%
17	C, C	36	0.0%
18	C, C	0	0.0%
19	C, C	103	0.0%
20	AN, W	-253	0.0%
21	C, C	99	0.0%
22	W, W	-32	0.0%
23	W, W	11	0.0%
24	W, W	26	0.0%
25	W, W	-22	0.0%
26	W, AN	0	0.0%
27	AN, AN	0	0.0%
28	D, D	61	0.0%
29	D, D	-56	0.0%
30	AN, BN	0	0.0%
31	BN, D	91	0.0%
32	AN, W	109	0.0%
33	W, W	-137	0.0%
34	D, C	1	0.0%
35	C, C	21	0.0%
36	D, BN	1	0.0%
37	BN, AN	17	0.0%
38	W, W	2	0.0%
39	BN, D	1	0.0%
40	D, C	1	0.0%
41	C, C	-6	0.0%
42	C, C	2	0.0%
<b>Average</b>		<b>3</b>	<b>0.0%</b>
<b>Maximum</b>		<b>109</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-253</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-168. Simulated Change in Groundwater Pumping in C2VSimFG Subregion 21 (SR21) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	-64	0.0%
2	W, W	-1	0.0%
3	C, C	-49	0.0%
4	C, C	28	0.0%
5	AN, W	62	0.0%
6	BN, AN	-1	0.0%
7	AN, W	37	0.0%
8	D, D	-72	0.0%
9	W, W	8	0.0%
10	W, W	-14	0.0%
11	W, AN	-71	0.0%
12	D, D	0	0.0%
13	W, W	-17	0.0%
14	D, D	37	0.0%
15	C, C	244	0.0%
16	D, C	26	0.0%
17	C, C	-167	0.0%
18	C, C	-77	0.0%
19	C, C	60	0.0%
20	AN, W	91	0.0%
21	C, C	-132	0.0%
22	W, W	-1	0.0%
23	W, W	38	0.0%
24	W, W	29	0.0%
25	W, W	-17	0.0%
26	W, AN	-61	0.0%
27	AN, AN	57	0.0%
28	D, D	-59	0.0%
29	D, D	10	0.0%
30	AN, BN	20	0.0%
31	BN, D	-59	0.0%
32	AN, W	-83	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
33	W, W	-10	0.0%
34	D, C	-14	0.0%
35	C, C	-94	0.0%
36	D, BN	52	0.0%
37	BN, AN	81	0.0%
38	W, W	77	0.0%
39	BN, D	-52	0.0%
40	D, C	-12	0.0%
41	C, C	-44	0.0%
42	C, C	17	0.0%
<b>Average</b>		<b>-5</b>	<b>0.0%</b>
<b>Maximum</b>		<b>244</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-167</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

## I-1.2 Groundwater-Surface Water Interaction Flow

### I-1.2.1 Groundwater-Surface Water Interaction Flow

Table I.1-169 through Table I.1-189 provide the annual simulated groundwater-surface water interaction flow through the model simulation period for each of the 21 model subregions.

Table I.1-169. Simulated Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 1 (SR1)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	-300,890	-299,137	-299,223	-299,244	-300,010	-300,008	-303,400	-299230
2	W, W	-303,988	-302,811	-304,325	-304,237	-304,266	-304,658	-301,974	-304301
3	C, C	-292,355	-291,305	-293,284	-293,285	-293,296	-293,116	-289,176	-292629
4	C, C	-260,270	-263,040	-244,928	-246,955	-244,490	-244,624	-227,799	-253836
5	AN, W	-227,280	-225,450	-219,420	-217,018	-219,064	-219,111	-199,140	-223375
6	BN, AN	-258,835	-254,085	-254,242	-255,184	-256,361	-255,473	-248,613	-255068
7	AN, W	-249,387	-252,142	-250,055	-250,190	-248,601	-249,539	-250,823	-251844
8	D, D	-259,497	-259,657	-258,584	-258,613	-258,990	-259,032	-255,451	-259440
9	W, W	-265,014	-263,503	-263,986	-264,006	-263,753	-263,529	-266,973	-264062
10	W, W	-297,385	-298,429	-298,625	-298,604	-298,397	-298,412	-295,028	-298952
11	W, AN	-337,517	-340,830	-338,353	-338,427	-338,189	-337,703	-339,112	-338795
12	D, D	-316,090	-315,858	-315,925	-316,046	-316,253	-316,642	-315,549	-316066
13	W, W	-303,254	-301,690	-302,705	-302,852	-302,333	-302,932	-303,576	-302908
14	D, D	-278,993	-280,025	-277,785	-277,713	-278,261	-278,242	-270,454	-278526
15	C, C	-268,193	-266,063	-268,580	-268,658	-268,407	-266,616	-265,856	-268911
16	D, C	-246,241	-248,544	-244,139	-244,374	-244,566	-246,267	-241,506	-244816
17	C, C	-233,252	-232,520	-231,889	-231,900	-231,114	-230,336	-230,666	-232630
18	C, C	-202,567	-203,504	-191,183	-191,576	-191,582	-191,620	-194,279	-197184
19	C, C	-192,610	-191,419	-171,921	-174,313	-170,437	-170,402	-176,327	-183408
20	AN, W	-195,394	-197,333	-193,842	-193,767	-196,000	-196,365	-195,953	-195559
21	C, C	-231,115	-232,002	-231,393	-229,985	-231,101	-230,954	-225,130	-230131
22	W, W	-218,919	-218,516	-216,353	-216,350	-216,425	-216,761	-216,804	-218267
23	W, W	-258,255	-260,645	-258,113	-257,982	-257,906	-258,020	-256,516	-258976

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	-278,694	-277,500	-275,882	-275,852	-275,774	-276,058	-277,598	-276491
25	W, W	-263,345	-264,500	-262,929	-262,866	-262,704	-262,655	-261,232	-263396
26	W, AN	-313,773	-315,757	-315,064	-315,115	-315,003	-315,114	-312,972	-315532
27	AN, AN	-301,720	-302,295	-299,048	-299,057	-300,550	-300,439	-300,062	-299493
28	D, D	-293,535	-291,310	-292,460	-292,471	-291,405	-291,584	-288,325	-293248
29	D, D	-280,398	-282,333	-279,886	-279,924	-279,697	-280,054	-283,630	-279784
30	AN, BN	-271,478	-271,760	-271,612	-271,607	-271,812	-271,937	-272,661	-271982
31	BN, D	-287,462	-288,989	-287,515	-287,478	-287,419	-287,344	-283,168	-287881
32	AN, W	-280,223	-276,972	-279,477	-279,476	-279,097	-279,630	-274,644	-279595
33	W, W	-290,434	-288,812	-288,876	-288,842	-289,689	-288,560	-292,257	-288992
34	D, C	-308,508	-312,743	-311,072	-311,098	-312,577	-312,476	-303,548	-311257
35	C, C	-289,254	-286,142	-287,103	-287,174	-285,963	-287,200	-278,894	-287576
36	D, BN	-266,820	-268,013	-266,468	-266,459	-266,962	-266,228	-258,203	-266822
37	BN, AN	-242,273	-242,925	-241,730	-241,689	-242,337	-242,874	-241,603	-242408
38	W, W	-253,833	-253,809	-253,024	-252,974	-253,593	-253,479	-252,931	-253699
39	BN, D	-267,581	-269,686	-267,862	-267,762	-267,915	-268,176	-264,447	-268241
40	D, C	-265,787	-261,874	-264,423	-264,428	-264,983	-264,925	-262,549	-264944
41	C, C	-237,982	-240,922	-227,506	-229,530	-227,753	-228,159	-204,856	-235288
42	C, C	-212,411	-219,013	-201,927	-198,471	-205,103	-203,072	-161,234	-197214
<b>Average</b>		<b>-266,734</b>	<b>-266,997</b>	<b>-264,350</b>	<b>-264,370</b>	<b>-264,527</b>	<b>-264,532</b>	<b>-260,593</b>	<b>-265542</b>
<b>Maximum</b>		<b>-192,610</b>	<b>-191,419</b>	<b>-171,921</b>	<b>-174,313</b>	<b>-170,437</b>	<b>-170,402</b>	<b>-161,234</b>	<b>-183408</b>
<b>Minimum</b>		<b>-337,517</b>	<b>-340,830</b>	<b>-338,353</b>	<b>-338,427</b>	<b>-338,189</b>	<b>-337,703</b>	<b>-339,112</b>	<b>-338795</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-170. Simulated Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 2 (SR2)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	94,665	96,244	98,009	97,883	96,939	98,374	94,477	97536
2	W, W	46,348	48,144	45,943	45,844	46,241	46,272	50,822	45576
3	C, C	13,023	15,918	12,607	12,520	12,611	13,712	20,056	12810
4	C, C	-12,235	-14,290	-5,109	-10,246	-4,353	-4,267	-12,326	-12175
5	AN, W	372,280	378,913	370,640	376,125	371,556	372,033	381,636	373174
6	BN, AN	136,485	143,914	145,056	143,621	141,800	144,213	152,010	143863
7	AN, W	180,233	171,333	181,521	180,384	183,381	183,295	177,265	176010
8	D, D	122,521	118,175	125,607	125,047	124,834	126,324	129,892	122607
9	W, W	143,457	145,028	145,273	144,930	147,796	149,468	144,080	144362
10	W, W	15,747	13,697	14,585	14,449	15,514	15,784	19,274	13775
11	W, AN	-31,013	-36,985	-32,127	-32,246	-31,783	-31,034	-34,208	-32851
12	D, D	30,421	30,113	30,788	30,674	30,442	30,307	33,097	30354
13	W, W	65,422	68,869	67,678	67,313	68,209	67,953	68,553	66627
14	D, D	67,458	65,055	70,140	70,092	69,551	70,229	75,418	68455
15	C, C	139,933	140,238	143,480	142,920	142,845	146,434	148,130	140277
16	D, C	198,781	190,540	208,837	208,685	208,131	206,321	215,326	205829
17	C, C	113,681	110,016	117,642	118,129	119,603	121,573	123,672	115871
18	C, C	168,263	162,931	168,043	168,444	168,438	169,188	174,641	167998
19	C, C	253,023	254,123	269,072	265,814	273,268	273,822	270,450	260202
20	AN, W	344,872	337,090	345,451	346,640	341,420	341,670	346,279	344604
21	C, C	89,016	85,441	89,239	92,108	89,922	91,078	98,716	90973
22	W, W	274,174	272,332	286,587	286,418	287,591	288,003	289,207	278942
23	W, W	152,808	147,532	157,985	157,582	158,259	158,676	161,954	153500

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	80,144	83,073	86,895	86,686	87,009	87,197	87,449	84558
25	W, W	82,144	79,421	83,691	83,730	83,845	84,290	87,779	82416
26	W, AN	3,212	-1,161	415	408	821	1,009	5,826	-363
27	AN, AN	47,015	45,441	52,076	52,065	49,568	49,783	49,379	51296
28	D, D	34,006	36,716	36,234	36,195	37,773	38,195	43,896	34505
29	D, D	113,701	108,329	115,847	115,806	116,698	116,687	113,274	115084
30	AN, BN	154,618	152,403	154,906	154,866	155,236	155,211	154,900	153770
31	BN, D	76,556	72,763	76,398	76,357	76,716	77,694	81,800	75856
32	AN, W	76,791	80,705	77,980	77,954	78,816	79,215	86,148	78286
33	W, W	37,024	38,355	39,651	39,631	38,413	40,912	36,753	39535
34	D, C	23,015	15,520	19,171	19,141	16,615	17,545	25,332	18651
35	C, C	88,062	93,514	92,465	92,435	94,118	92,636	101,101	90700
36	D, BN	128,597	125,073	132,013	131,982	130,085	132,235	141,154	129442
37	BN, AN	188,850	183,642	190,986	190,926	188,456	187,656	190,278	188017
38	W, W	161,726	161,412	165,696	165,661	164,020	165,302	168,293	163245
39	BN, D	62,492	58,889	62,680	62,651	62,240	62,503	68,862	61478
40	D, C	128,025	133,669	130,442	130,416	129,442	130,463	130,370	128930
41	C, C	111,455	105,443	112,428	108,278	111,954	112,005	118,390	107533
42	C, C	217,036	213,532	229,263	227,324	225,592	228,755	234,704	221194
<b>Average</b>		<b>114,139</b>	<b>112,646</b>	<b>117,052</b>	<b>116,801</b>	<b>116,896</b>	<b>117,589</b>	<b>120,336</b>	<b>115058</b>
<b>Maximum</b>		<b>372,280</b>	<b>378,913</b>	<b>370,640</b>	<b>376,125</b>	<b>371,556</b>	<b>372,033</b>	<b>381,636</b>	<b>373174</b>
<b>Minimum</b>		<b>-31,013</b>	<b>-36,985</b>	<b>-32,127</b>	<b>-32,246</b>	<b>-31,783</b>	<b>-31,034</b>	<b>-34,208</b>	<b>-32851</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-171. Simulated Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 3 (SR3)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	-97,426	-97,301	-96,402	-96,687	-97,625	-91,024	-90,994	-97084
2	W, W	-94,262	-94,068	-93,253	-93,523	-94,407	-89,834	-87,739	-93950
3	C, C	-85,985	-86,143	-84,474	-84,728	-85,564	-80,189	-76,436	-85650
4	C, C	-65,703	-65,735	-52,592	-52,743	-53,038	-49,933	-7,817	-60327
5	AN, W	-48,869	-47,887	-34,970	-34,794	-35,930	-32,050	-148	-41764
6	BN, AN	-70,152	-69,658	-64,551	-64,994	-65,459	-58,262	-51,554	-67520
7	AN, W	-73,108	-75,429	-68,958	-69,701	-70,079	-62,939	-61,959	-72190
8	D, D	-77,083	-78,245	-73,804	-74,316	-74,981	-66,714	-66,783	-76124
9	W, W	-86,663	-87,898	-84,263	-84,672	-84,677	-77,360	-77,792	-86126
10	W, W	-103,621	-104,484	-101,302	-101,670	-102,152	-98,453	-95,493	-102966
11	W, AN	-112,200	-113,002	-110,098	-110,434	-111,077	-108,191	-104,640	-111589
12	D, D	-95,612	-96,168	-93,652	-93,952	-94,731	-90,678	-88,139	-95027
13	W, W	-86,711	-86,946	-84,615	-84,886	-85,565	-79,680	-79,627	-85930
14	D, D	-84,807	-85,628	-82,303	-82,576	-83,381	-78,843	-73,527	-83641
15	C, C	-78,432	-80,237	-73,981	-74,444	-75,256	-69,445	-64,064	-76560
16	D, C	-69,849	-73,166	-64,071	-64,185	-65,151	-60,982	-55,491	-66196
17	C, C	-68,158	-72,463	-64,592	-63,986	-64,904	-59,003	-55,197	-66823
18	C, C	-49,737	-53,705	-37,094	-36,706	-36,919	-34,128	-30,884	-43161
19	C, C	-39,707	-42,232	-24,153	-23,770	-24,938	-22,657	-18,967	-30930
20	AN, W	-44,699	-46,700	-38,986	-39,088	-40,852	-37,794	-32,945	-41942
21	C, C	-66,112	-67,367	-60,094	-60,593	-61,774	-55,844	-51,139	-63571
22	W, W	-57,768	-59,332	-49,258	-49,946	-50,340	-46,399	-41,992	-54174
23	W, W	-77,244	-78,645	-71,217	-71,598	-72,122	-69,938	-65,477	-74499

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	-86,972	-87,785	-81,994	-82,320	-82,969	-81,158	-76,434	-84673
25	W, W	-88,247	-88,794	-84,026	-84,298	-85,048	-83,429	-78,506	-86384
26	W, AN	-103,798	-104,684	-100,008	-100,242	-101,024	-99,575	-95,458	-102141
27	AN, AN	-91,236	-92,064	-87,551	-87,761	-88,568	-85,886	-83,850	-89550
28	D, D	-88,797	-89,824	-85,451	-85,637	-86,344	-80,454	-78,164	-87337
29	D, D	-84,992	-87,169	-81,682	-81,847	-82,757	-76,238	-75,562	-83714
30	AN, BN	-86,877	-88,271	-84,264	-84,408	-85,572	-78,808	-78,750	-85953
31	BN, D	-92,034	-93,086	-89,789	-89,919	-91,049	-83,598	-81,876	-91130
32	AN, W	-92,589	-94,023	-90,805	-90,923	-92,096	-83,864	-84,290	-91668
33	W, W	-100,524	-102,198	-98,864	-98,973	-100,047	-93,361	-94,034	-99722
34	D, C	-98,389	-99,827	-96,815	-96,914	-98,159	-93,144	-88,376	-97721
35	C, C	-87,329	-88,019	-84,759	-84,856	-86,336	-78,502	-74,606	-86202
36	D, BN	-76,665	-78,333	-72,824	-72,927	-75,544	-68,021	-62,778	-75321
37	BN, AN	-73,504	-75,642	-70,880	-70,980	-73,839	-67,095	-63,965	-73083
38	W, W	-89,097	-90,841	-86,760	-86,848	-88,912	-82,875	-81,092	-88611
39	BN, D	-89,425	-90,842	-87,317	-87,397	-89,214	-84,688	-81,749	-88866
40	D, C	-84,205	-85,575	-81,668	-81,742	-83,726	-76,787	-73,622	-83457
41	C, C	-70,450	-72,522	-53,331	-53,398	-54,831	-48,139	-12,778	-63288
42	C, C	-48,462	-50,486	-32,106	-31,796	-34,498	-31,235	28,610	-34459
<b>Average</b>		<b>-80,179</b>	<b>-81,486</b>	<b>-75,228</b>	<b>-75,409</b>	<b>-76,463</b>	<b>-71,362</b>	<b>-64,669</b>	<b>-77881</b>
<b>Maximum</b>		<b>-39,707</b>	<b>-42,232</b>	<b>-24,153</b>	<b>-23,770</b>	<b>-24,938</b>	<b>-22,657</b>	<b>28,610</b>	<b>-30930</b>
<b>Minimum</b>		<b>-112,200</b>	<b>-113,002</b>	<b>-110,098</b>	<b>-110,434</b>	<b>-111,077</b>	<b>-108,191</b>	<b>-104,640</b>	<b>-111589</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-172. Simulated Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 4 (SR4)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	-424,892	-423,659	-417,795	-418,281	-426,421	-406,203	-425,009	-419024
2	W, W	-408,685	-408,290	-409,070	-409,550	-414,875	-399,972	-400,727	-410329
3	C, C	-362,075	-357,697	-363,234	-363,677	-369,881	-352,798	-335,841	-362486
4	C, C	-290,252	-295,632	-239,353	-250,126	-241,082	-234,491	-116,817	-273116
5	AN, W	-309,678	-309,118	-284,961	-274,848	-285,188	-271,635	-157,176	-296405
6	BN, AN	-385,578	-369,997	-362,948	-366,024	-374,492	-346,585	-335,560	-368093
7	AN, W	-410,156	-422,088	-407,823	-409,018	-408,548	-386,681	-408,246	-416269
8	D, D	-343,396	-352,915	-339,202	-340,032	-344,517	-316,772	-321,955	-345088
9	W, W	-444,374	-437,688	-434,815	-435,497	-439,295	-417,943	-426,868	-436866
10	W, W	-458,264	-458,358	-453,356	-453,939	-458,992	-451,698	-438,972	-456250
11	W, AN	-456,863	-468,671	-455,880	-456,462	-462,228	-455,558	-453,933	-458883
12	D, D	-391,074	-391,643	-387,427	-387,945	-395,280	-383,256	-376,978	-389650
13	W, W	-442,508	-434,724	-436,684	-437,738	-442,321	-426,376	-428,612	-439595
14	D, D	-345,716	-353,291	-339,751	-340,140	-347,111	-334,098	-317,622	-345004
15	C, C	-372,084	-373,215	-368,135	-368,741	-374,407	-353,033	-353,953	-371866
16	D, C	-331,617	-342,513	-320,009	-320,081	-327,076	-316,499	-299,177	-325164
17	C, C	-376,363	-379,489	-372,897	-374,013	-372,324	-352,591	-343,082	-375318
18	C, C	-317,194	-324,121	-284,089	-282,163	-285,121	-278,310	-260,866	-300137
19	C, C	-287,899	-279,453	-219,750	-230,171	-216,271	-211,372	-208,801	-260512
20	AN, W	-354,937	-366,534	-346,253	-345,222	-361,132	-350,188	-330,735	-352132
21	C, C	-336,792	-343,478	-329,235	-325,948	-336,377	-316,900	-297,620	-329463
22	W, W	-383,352	-384,413	-367,464	-367,043	-372,352	-360,986	-356,625	-376669
23	W, W	-367,618	-377,425	-360,640	-361,596	-367,114	-362,187	-353,201	-367683

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	-391,161	-386,799	-377,359	-378,142	-383,485	-380,304	-374,087	-382600
25	W, W	-398,216	-406,549	-391,648	-392,042	-397,489	-393,930	-380,515	-395929
26	W, AN	-429,141	-440,096	-431,077	-431,497	-436,677	-433,895	-419,652	-434928
27	AN, AN	-394,320	-396,718	-378,800	-379,168	-390,204	-379,382	-386,122	-382446
28	D, D	-397,532	-393,713	-389,850	-390,184	-393,832	-371,709	-363,403	-395069
29	D, D	-394,602	-400,616	-389,752	-390,054	-394,640	-368,387	-391,363	-391357
30	AN, BN	-392,008	-395,169	-388,498	-388,772	-395,014	-367,851	-389,465	-391559
31	BN, D	-385,102	-394,930	-384,482	-384,731	-391,329	-360,779	-370,203	-386946
32	AN, W	-436,568	-428,535	-429,685	-429,900	-434,673	-405,334	-414,554	-431501
33	W, W	-429,112	-429,027	-422,354	-422,532	-431,291	-407,378	-417,402	-423815
34	D, C	-375,368	-389,767	-380,446	-380,627	-393,164	-375,473	-355,042	-382342
35	C, C	-394,692	-387,295	-385,479	-385,653	-389,852	-365,431	-356,148	-389499
36	D, BN	-365,936	-371,111	-361,710	-361,876	-370,478	-338,038	-330,559	-364596
37	BN, AN	-376,157	-382,205	-371,018	-371,226	-380,550	-353,366	-365,689	-374809
38	W, W	-406,600	-404,916	-399,919	-400,044	-408,317	-387,533	-386,089	-403448
39	BN, D	-369,950	-378,260	-369,669	-369,814	-376,610	-360,297	-358,726	-372462
40	D, C	-375,561	-367,994	-369,172	-369,323	-377,873	-352,430	-357,665	-372629
41	C, C	-342,596	-351,314	-302,465	-312,190	-306,570	-288,686	-163,611	-333453
42	C, C	-303,093	-310,571	-248,188	-247,789	-259,183	-247,152	-35,646	-258062
<b>Average</b>		<b>-379,978</b>	<b>-382,619</b>	<b>-368,389</b>	<b>-369,139</b>	<b>-374,610</b>	<b>-357,702</b>	<b>-342,008</b>	<b>-374844</b>
<b>Maximum</b>		<b>-287,899</b>	<b>-279,453</b>	<b>-219,750</b>	<b>-230,171</b>	<b>-216,271</b>	<b>-211,372</b>	<b>-35,646</b>	<b>-258062</b>
<b>Minimum</b>		<b>-458,264</b>	<b>-468,671</b>	<b>-455,880</b>	<b>-456,462</b>	<b>-462,228</b>	<b>-455,558</b>	<b>-453,933</b>	<b>-458883</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-173. Simulated Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 5 (SR5)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	-422,319	-427,427	-423,044	-423,184	-423,916	-419,068	-420,826	-423133
2	W, W	-412,983	-411,867	-413,789	-413,700	-415,898	-409,154	-417,360	-413563
3	C, C	-394,653	-392,833	-393,696	-393,836	-390,385	-385,716	-363,431	-394747
4	C, C	-240,794	-247,754	-249,294	-247,361	-240,719	-238,645	-211,411	-245977
5	AN, W	-159,889	-152,362	-149,774	-146,106	-143,050	-140,785	-157,467	-157366
6	BN, AN	-323,602	-322,366	-328,328	-327,064	-328,903	-323,254	-297,759	-326076
7	AN, W	-381,746	-382,628	-376,267	-377,069	-374,662	-368,421	-398,879	-381276
8	D, D	-356,316	-362,038	-361,222	-361,184	-354,822	-347,356	-328,621	-362300
9	W, W	-422,177	-421,194	-418,097	-418,016	-422,539	-416,983	-440,444	-417487
10	W, W	-578,216	-569,546	-575,032	-574,950	-576,241	-574,104	-538,776	-574740
11	W, AN	-462,884	-460,751	-464,639	-464,506	-465,698	-464,066	-486,600	-464756
12	D, D	-426,045	-435,430	-429,005	-428,828	-420,413	-415,640	-399,604	-428929
13	W, W	-418,293	-413,584	-410,931	-410,898	-422,115	-416,775	-423,533	-411142
14	D, D	-362,602	-357,074	-364,986	-364,749	-362,714	-357,905	-329,531	-364910
15	C, C	-311,088	-310,976	-307,461	-307,690	-308,970	-306,983	-276,848	-309194
16	D, C	-278,562	-288,829	-279,618	-278,738	-266,875	-257,658	-262,703	-284898
17	C, C	-332,482	-349,367	-334,558	-331,642	-340,254	-335,244	-291,423	-334944
18	C, C	-244,462	-247,024	-241,273	-241,790	-236,269	-232,381	-196,844	-243499
19	C, C	-225,426	-231,024	-225,456	-221,725	-219,442	-215,571	-155,960	-226897
20	AN, W	-265,439	-254,506	-248,286	-256,071	-247,445	-241,998	-253,701	-259048
21	C, C	-345,826	-345,322	-344,431	-345,301	-340,419	-334,566	-293,399	-346953
22	W, W	-337,097	-342,997	-330,551	-331,411	-328,599	-324,308	-330,506	-335014
23	W, W	-380,638	-377,138	-377,256	-377,863	-375,957	-373,936	-372,612	-378929

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	-437,280	-442,649	-437,107	-437,654	-437,294	-435,081	-424,279	-438127
25	W, W	-476,173	-466,824	-475,704	-476,097	-476,073	-474,333	-435,913	-476434
26	W, AN	-433,338	-433,168	-432,525	-432,875	-433,129	-431,916	-454,767	-433230
27	AN, AN	-424,346	-421,954	-424,410	-424,668	-425,264	-423,825	-427,023	-424242
28	D, D	-419,314	-425,855	-423,170	-423,342	-420,699	-410,361	-383,659	-425072
29	D, D	-377,906	-370,817	-370,272	-370,372	-367,272	-358,584	-366,350	-369316
30	AN, BN	-338,739	-337,796	-338,887	-339,045	-348,985	-340,131	-354,779	-339590
31	BN, D	-402,146	-397,740	-401,335	-401,426	-403,725	-393,325	-398,283	-401624
32	AN, W	-435,657	-430,570	-432,899	-432,978	-440,402	-428,105	-418,362	-434553
33	W, W	-480,016	-490,053	-482,032	-482,094	-478,497	-477,866	-456,826	-480782
34	D, C	-423,591	-404,861	-414,910	-414,963	-411,067	-406,074	-425,728	-414896
35	C, C	-393,649	-397,370	-393,100	-393,160	-400,057	-393,169	-357,510	-394602
36	D, BN	-306,619	-302,520	-301,642	-301,733	-303,051	-296,242	-300,126	-302459
37	BN, AN	-316,470	-312,828	-314,075	-314,032	-320,916	-320,056	-339,338	-315221
38	W, W	-413,847	-416,246	-413,973	-414,058	-417,831	-410,226	-405,253	-414180
39	BN, D	-359,793	-362,984	-360,395	-360,515	-362,321	-356,864	-378,840	-360478
40	D, C	-376,708	-374,396	-375,089	-375,236	-363,239	-356,408	-339,604	-375774
41	C, C	-283,085	-279,085	-276,172	-276,573	-289,653	-283,940	-228,371	-278198
42	C, C	-212,914	-219,839	-212,054	-196,876	-208,496	-209,749	-127,953	-197397
<b>Average</b>		<b>-366,551</b>	<b>-366,466</b>	<b>-364,923</b>	<b>-364,557</b>	<b>-364,626</b>	<b>-359,685</b>	<b>-349,314</b>	<b>-365761</b>
<b>Maximum</b>		<b>-159,889</b>	<b>-152,362</b>	<b>-149,774</b>	<b>-146,106</b>	<b>-143,050</b>	<b>-140,785</b>	<b>-127,953</b>	<b>-157366</b>
<b>Minimum</b>		<b>-578,216</b>	<b>-569,546</b>	<b>-575,032</b>	<b>-574,950</b>	<b>-576,241</b>	<b>-574,104</b>	<b>-538,776</b>	<b>-574740</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-174. Simulated Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 6 (SR6)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	56,317	55,798	57,076	56,959	54,195	54,148	55,957	57237
2	W, W	74,376	74,626	74,409	74,278	72,705	72,569	74,258	74241
3	C, C	118,636	119,382	118,456	118,368	117,929	118,663	123,934	118407
4	C, C	140,337	138,221	138,624	137,395	136,677	137,399	144,191	139223
5	AN, W	235,143	235,354	232,657	234,499	230,583	229,930	237,024	235070
6	BN, AN	152,164	153,146	151,846	151,651	150,023	149,617	158,630	152806
7	AN, W	107,839	106,800	109,287	109,059	107,906	107,716	104,838	108112
8	D, D	144,157	143,051	142,615	142,606	141,656	141,956	150,323	142941
9	W, W	60,013	61,120	62,330	62,424	60,101	60,897	57,607	61332
10	W, W	-21,469	-20,522	-21,118	-21,021	-22,473	-22,026	-15,982	-21568
11	W, AN	28,499	26,286	27,853	27,853	25,908	26,812	23,008	27493
12	D, D	70,102	68,752	70,648	70,629	69,916	70,289	74,434	70424
13	W, W	46,012	46,968	47,755	47,854	45,172	45,729	44,748	47753
14	D, D	105,589	107,198	105,518	105,547	104,210	105,296	111,003	104806
15	C, C	128,095	128,808	128,044	127,959	125,743	126,284	129,571	127716
16	D, C	151,230	152,121	152,605	152,597	150,883	150,442	152,445	152315
17	C, C	123,064	123,328	121,279	121,236	121,053	121,301	125,770	121603
18	C, C	176,805	174,898	170,817	170,490	169,354	169,898	175,580	171878
19	C, C	204,725	204,404	204,059	204,225	203,930	202,470	207,741	202625
20	AN, W	252,478	250,548	250,843	250,423	245,870	248,272	243,537	249452
21	C, C	159,417	159,476	158,464	158,869	157,161	158,352	165,337	159072
22	W, W	196,366	194,952	198,381	198,267	194,812	195,862	199,036	196875
23	W, W	134,972	134,373	135,143	134,846	133,076	133,536	133,469	134674

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	102,086	102,566	103,077	102,886	100,996	101,151	104,508	102859
25	W, W	57,782	59,166	58,164	57,885	56,096	56,341	63,206	57984
26	W, AN	57,890	56,690	57,410	57,154	54,784	55,105	53,863	57055
27	AN, AN	81,744	80,888	83,153	82,758	79,646	79,725	81,605	82927
28	D, D	92,260	92,337	92,509	92,181	90,492	91,247	100,058	92092
29	D, D	105,630	105,090	106,695	106,385	104,869	106,239	103,472	106501
30	AN, BN	102,417	103,800	102,826	102,693	98,358	99,138	97,799	102476
31	BN, D	97,062	96,942	97,199	97,120	94,545	95,485	97,337	96816
32	AN, W	67,462	69,832	68,610	68,643	65,997	66,780	70,362	68261
33	W, W	41,778	40,166	42,304	42,358	40,462	41,351	45,238	42206
34	D, C	97,633	97,770	97,290	97,546	95,286	95,780	96,337	97300
35	C, C	98,122	97,732	98,319	98,429	96,464	96,567	104,749	98502
36	D, BN	121,922	120,573	122,933	122,850	127,291	129,814	123,405	121293
37	BN, AN	140,081	140,243	141,324	141,310	127,199	125,657	137,834	140856
38	W, W	80,781	79,274	80,905	80,961	74,651	75,587	81,984	80325
39	BN, D	116,082	114,729	115,328	115,344	111,429	111,422	112,994	115278
40	D, C	153,855	154,655	154,202	154,243	150,297	149,889	157,493	153877
41	C, C	137,685	137,154	134,305	132,543	130,705	130,846	141,769	134550
42	C, C	216,760	214,988	217,587	217,690	213,837	211,958	226,597	216007
<b>Average</b>		<b>114,617</b>	<b>114,373</b>	<b>114,565</b>	<b>114,476</b>	<b>112,138</b>	<b>112,512</b>	<b>116,121</b>	<b>114325</b>
<b>Maximum</b>		<b>252,478</b>	<b>250,548</b>	<b>250,843</b>	<b>250,423</b>	<b>245,870</b>	<b>248,272</b>	<b>243,537</b>	<b>249452</b>
<b>Minimum</b>		<b>-21,469</b>	<b>-20,522</b>	<b>-21,118</b>	<b>-21,021</b>	<b>-22,473</b>	<b>-22,026</b>	<b>-15,982</b>	<b>-21568</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-175. Simulated Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 7 (SR7)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	-14,464	-19,300	-15,644	-15,626	-14,945	-14,348	-15,868	-15424
2	W, W	-24,400	-20,482	-24,472	-24,422	-25,046	-23,048	-26,318	-24562
3	C, C	-17,566	-17,507	-17,166	-17,191	-16,120	-14,699	-10,383	-17286
4	C, C	31,030	33,447	25,636	24,689	25,673	28,065	33,380	26678
5	AN, W	45,199	41,954	44,366	45,898	43,958	46,974	41,154	46561
6	BN, AN	2,462	3,423	1,210	838	-38	3,300	10,919	2188
7	AN, W	-7,933	-3,087	-7,823	-8,084	-7,096	-3,946	-14,010	-8592
8	D, D	7,141	3,793	6,298	6,519	7,514	12,205	12,298	6081
9	W, W	4,253	4,830	5,161	5,522	3,862	7,298	-3,420	5707
10	W, W	-38,849	-36,508	-38,746	-38,420	-38,880	-36,137	-27,927	-38794
11	W, AN	-33,038	-33,315	-34,468	-34,264	-34,806	-32,167	-41,678	-34456
12	D, D	-31,746	-33,336	-32,317	-32,331	-30,571	-27,412	-28,812	-32346
13	W, W	-35,408	-35,733	-33,048	-33,027	-35,601	-33,311	-37,106	-33229
14	D, D	-12,079	-9,954	-13,643	-13,325	-12,403	-9,249	-6,688	-13640
15	C, C	-1,050	-2,608	-1,329	-1,081	-1,290	2,165	3,083	-1098
16	D, C	18,164	21,403	19,151	19,329	20,950	26,638	19,358	19376
17	C, C	-2,045	-3,845	-2,725	-3,208	-4,407	166	2,313	-2873
18	C, C	22,646	22,812	18,382	16,018	16,321	21,336	26,822	17626
19	C, C	26,472	27,724	26,726	28,529	27,890	33,111	34,255	27421
20	AN, W	27,420	25,973	27,417	27,102	26,052	31,046	16,573	26436
21	C, C	7,255	9,160	5,640	6,267	5,917	11,922	11,049	5513
22	W, W	24,153	22,210	23,458	23,535	22,414	27,041	21,710	23859
23	W, W	17,338	16,648	16,573	16,318	15,958	20,018	13,347	16421

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	-8,138	-8,068	-8,017	-7,884	-8,130	-4,926	-8,834	-7789
25	W, W	-8,808	-8,646	-8,476	-8,615	-9,156	-6,212	-2,439	-8550
26	W, AN	-14,497	-15,683	-14,227	-14,402	-14,773	-12,536	-20,911	-14378
27	AN, AN	-10,674	-9,270	-10,292	-10,524	-12,215	-9,792	-11,779	-10259
28	D, D	-16,566	-17,370	-16,789	-17,046	-15,801	-12,449	-8,801	-17404
29	D, D	-58	283	1,055	690	1,810	5,908	-1,155	1129
30	AN, BN	14,613	12,404	14,413	14,359	11,612	15,120	9,010	14369
31	BN, D	4,629	7,876	5,218	5,100	4,265	8,014	2,200	4985
32	AN, W	-2,016	-435	-1,896	-1,918	-2,611	-323	703	-2211
33	W, W	-4,654	-7,259	-5,216	-5,022	-5,279	-3,507	-868	-5193
34	D, C	-2,640	491	-1,233	-1,017	-497	1,511	-5,312	-1140
35	C, C	2,645	512	607	812	-686	3,324	9,332	277
36	D, BN	24,481	23,461	25,134	25,254	24,954	28,621	27,585	25089
37	BN, AN	18,317	17,850	18,719	18,747	17,804	19,836	9,822	18382
38	W, W	8,799	8,906	9,058	8,971	7,814	10,945	10,198	8854
39	BN, D	9,837	8,630	9,564	9,758	9,354	12,465	4,901	9713
40	D, C	4,404	2,979	4,117	4,399	6,984	9,291	10,018	4160
41	C, C	29,446	30,706	25,417	26,255	22,800	24,932	37,808	27874
42	C, C	41,915	46,339	45,604	39,880	45,122	47,619	49,733	39788
<b>Average</b>		<b>2,523</b>	<b>2,653</b>	<b>2,176</b>	<b>2,081</b>	<b>1,873</b>	<b>5,114</b>	<b>3,459</b>	<b>2125</b>
<b>Maximum</b>		<b>45,199</b>	<b>46,339</b>	<b>45,604</b>	<b>45,898</b>	<b>45,122</b>	<b>47,619</b>	<b>49,733</b>	<b>46561</b>
<b>Minimum</b>		<b>-38,849</b>	<b>-36,508</b>	<b>-38,746</b>	<b>-38,420</b>	<b>-38,880</b>	<b>-36,137</b>	<b>-41,678</b>	<b>-38794</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-176. Simulated Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 8 (SR8)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	263,415	261,108	262,825	262,732	263,453	263,579	268,744	262,722
2	W, W	238,888	241,151	238,822	238,800	238,745	240,056	240,841	238,792
3	C, C	209,053	208,610	209,110	209,154	209,459	210,994	213,209	209,235
4	C, C	200,588	203,000	198,852	198,209	198,534	199,854	201,824	198,492
5	AN, W	325,372	321,609	326,150	326,900	325,877	327,538	330,449	326,590
6	BN, AN	322,710	323,040	322,927	322,515	322,378	326,879	323,182	322,762
7	AN, W	313,332	315,650	312,731	312,416	312,794	317,856	316,269	312,340
8	D, D	234,741	233,808	235,261	235,252	235,481	238,367	234,266	235,085
9	W, W	348,722	348,997	349,220	349,311	348,797	350,386	354,125	349,428
10	W, W	247,434	247,536	247,465	247,433	247,448	249,088	267,103	247,530
11	W, AN	177,119	176,597	176,689	176,700	176,600	175,466	182,474	176,579
12	D, D	166,005	165,465	165,738	165,887	166,154	169,237	169,920	165,744
13	W, W	221,451	221,076	222,259	222,129	221,445	220,596	227,951	221,920
14	D, D	179,478	180,703	178,723	178,923	179,397	181,432	182,245	178,917
15	C, C	195,732	194,379	195,682	195,683	195,590	197,102	198,936	195,635
16	D, C	242,642	244,568	243,082	243,132	243,239	245,118	247,252	243,298
17	C, C	208,025	207,118	208,252	207,910	208,091	209,904	211,015	207,993
18	C, C	241,642	241,304	240,829	239,661	239,561	240,580	246,108	239,678
19	C, C	261,771	261,695	262,426	263,554	263,337	264,734	265,695	263,365
20	AN, W	316,004	315,253	316,395	316,268	316,299	317,029	319,938	316,357
21	C, C	247,103	248,326	246,548	246,665	246,816	248,649	246,313	246,454
22	W, W	365,146	364,406	364,868	364,976	364,787	365,575	371,335	365,244
23	W, W	354,810	353,486	353,932	354,170	354,112	355,007	348,741	354,086

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	320,595	321,056	320,739	320,780	320,975	323,191	332,519	320723
25	W, W	288,940	288,220	288,986	288,995	289,005	287,909	296,758	288953
26	W, AN	260,618	259,526	260,549	260,528	260,379	262,577	262,614	260529
27	AN, AN	237,417	238,136	237,672	237,671	236,987	237,421	244,076	237648
28	D, D	235,086	234,904	235,149	235,178	235,787	237,868	243,451	234940
29	D, D	232,374	232,125	232,510	232,528	233,009	234,050	235,959	232536
30	AN, BN	230,867	229,287	230,880	230,855	230,226	228,666	236,828	230738
31	BN, D	212,407	214,195	212,624	212,638	212,436	214,816	215,125	212752
32	AN, W	262,787	262,859	262,112	262,129	262,647	261,675	270,749	262203
33	W, W	328,806	328,960	329,112	329,118	328,818	329,611	336,657	329036
34	D, C	241,419	242,399	242,058	242,124	242,187	242,788	236,635	242105
35	C, C	221,074	220,545	220,036	220,036	219,946	220,865	227,866	220046
36	D, BN	240,544	239,767	240,852	240,871	240,818	241,008	247,798	240866
37	BN, AN	227,101	226,915	227,427	227,431	227,495	227,925	229,992	227488
38	W, W	307,458	307,673	307,533	307,511	307,454	307,309	314,448	307557
39	BN, D	225,736	225,378	226,039	226,025	226,045	226,653	227,600	226040
40	D, C	241,783	240,287	241,667	241,474	242,287	242,563	248,647	241616
41	C, C	232,064	233,059	231,138	231,971	230,708	230,985	238,547	231857
42	C, C	262,645	265,589	265,752	261,765	265,694	267,385	266,982	261724
<b>Average</b>		<b>254,545</b>	<b>254,518</b>	<b>254,562</b>	<b>254,476</b>	<b>254,555</b>	<b>255,721</b>	<b>259,076</b>	<b>254467</b>
<b>Maximum</b>		<b>365,146</b>	<b>364,406</b>	<b>364,868</b>	<b>364,976</b>	<b>364,787</b>	<b>365,575</b>	<b>371,335</b>	<b>365244</b>
<b>Minimum</b>		<b>166,005</b>	<b>165,465</b>	<b>165,738</b>	<b>165,887</b>	<b>166,154</b>	<b>169,237</b>	<b>169,920</b>	<b>165744</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-177. Simulated Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 9 (SR9)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	-322,738	-333,244	-321,809	-321,931	-319,702	-321,660	-304,639	-322192
2	W, W	-407,801	-403,110	-409,425	-409,553	-408,189	-407,447	-392,173	-409676
3	C, C	-469,540	-466,118	-472,212	-472,153	-464,736	-465,565	-422,192	-470325
4	C, C	-362,581	-364,337	-364,516	-372,330	-368,322	-367,783	-342,315	-370443
5	AN, W	-172,722	-186,329	-174,204	-165,464	-172,153	-171,378	-181,719	-167902
6	BN, AN	-345,258	-348,060	-345,728	-345,840	-348,741	-346,555	-302,459	-341573
7	AN, W	-276,704	-272,764	-274,348	-275,293	-269,158	-269,434	-277,447	-278872
8	D, D	-364,713	-375,217	-367,150	-367,126	-360,970	-362,428	-325,855	-369018
9	W, W	-269,755	-268,615	-263,660	-263,629	-267,241	-266,870	-269,686	-262962
10	W, W	-369,701	-367,712	-369,693	-369,523	-368,290	-368,694	-320,974	-369728
11	W, AN	-453,372	-459,877	-456,976	-456,940	-455,286	-455,061	-453,797	-457499
12	D, D	-472,652	-479,946	-471,840	-471,844	-465,538	-464,397	-437,794	-471818
13	W, W	-384,762	-385,836	-380,165	-380,700	-384,870	-385,696	-369,548	-381342
14	D, D	-441,032	-438,341	-443,852	-443,486	-438,724	-438,410	-401,741	-445641
15	C, C	-394,041	-403,083	-396,664	-396,584	-396,309	-394,112	-367,672	-395242
16	D, C	-318,812	-310,317	-315,309	-315,238	-308,750	-308,527	-296,458	-315283
17	C, C	-397,828	-395,792	-391,549	-394,789	-393,150	-392,414	-354,706	-392990
18	C, C	-338,333	-336,423	-335,864	-339,840	-344,317	-344,597	-304,406	-339538
19	C, C	-301,413	-297,393	-286,429	-284,277	-277,336	-278,212	-262,708	-289264
20	AN, W	-206,080	-231,877	-225,590	-221,267	-226,780	-225,845	-241,776	-219834
21	C, C	-373,780	-372,593	-377,859	-377,469	-373,889	-373,045	-342,367	-376391
22	W, W	-198,083	-205,279	-198,372	-199,218	-201,294	-201,447	-195,024	-200450
23	W, W	-298,662	-307,783	-302,188	-301,849	-301,268	-301,570	-293,924	-302558

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	-378,590	-384,878	-377,224	-377,040	-376,204	-376,530	-358,261	-377470
25	W, W	-329,893	-332,811	-330,291	-330,082	-329,530	-329,116	-288,631	-330492
26	W, AN	-428,904	-435,054	-433,105	-432,838	-432,406	-432,028	-424,442	-433339
27	AN, AN	-424,452	-422,335	-421,265	-420,861	-423,832	-423,665	-406,568	-420681
28	D, D	-477,502	-480,794	-478,975	-478,752	-474,341	-473,795	-431,081	-481763
29	D, D	-387,773	-385,668	-384,483	-384,070	-379,794	-375,377	-372,420	-382345
30	AN, BN	-335,169	-344,330	-336,711	-336,329	-341,367	-343,154	-341,101	-336998
31	BN, D	-364,306	-364,054	-365,272	-365,043	-364,072	-361,350	-345,172	-365358
32	AN, W	-396,015	-391,312	-394,279	-394,267	-393,380	-393,754	-360,609	-394904
33	W, W	-349,711	-359,470	-352,417	-352,331	-349,612	-349,966	-315,679	-352286
34	D, C	-457,345	-454,274	-456,337	-456,421	-453,485	-452,889	-441,669	-456907
35	C, C	-434,787	-438,746	-436,631	-436,625	-438,026	-439,501	-383,754	-437777
36	D, BN	-383,937	-387,728	-383,782	-383,769	-379,502	-377,175	-354,803	-384026
37	BN, AN	-340,636	-342,182	-336,164	-336,318	-336,146	-336,268	-336,835	-336330
38	W, W	-294,233	-297,705	-295,257	-295,321	-294,767	-293,832	-265,265	-295513
39	BN, D	-402,038	-407,388	-403,587	-403,597	-401,929	-401,611	-394,842	-403821
40	D, C	-378,321	-381,906	-377,134	-377,170	-366,994	-368,326	-337,732	-377761
41	C, C	-417,457	-411,186	-420,068	-430,280	-425,611	-425,914	-375,299	-427502
42	C, C	-338,161	-329,833	-317,915	-328,580	-319,210	-314,570	-302,321	-334110
<b>Average</b>		<b>-363,324</b>	<b>-365,755</b>	<b>-363,007</b>	<b>-363,477</b>	<b>-361,791</b>	<b>-361,428</b>	<b>-340,425</b>	<b>-363808</b>
<b>Maximum</b>		<b>-172,722</b>	<b>-186,329</b>	<b>-174,204</b>	<b>-165,464</b>	<b>-172,153</b>	<b>-171,378</b>	<b>-181,719</b>	<b>-167902</b>
<b>Minimum</b>		<b>-477,502</b>	<b>-480,794</b>	<b>-478,975</b>	<b>-478,752</b>	<b>-474,341</b>	<b>-473,795</b>	<b>-453,797</b>	<b>-481763</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-178. Simulated Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 10 (SR10)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	-86,934	-98,811	-87,469	-87,725	-80,165	-80,951	-31,016	-88368
2	W, W	-90,092	-100,691	-89,770	-89,846	-83,720	-84,338	-35,612	-90579
3	C, C	-90,202	-100,697	-89,729	-89,905	-83,742	-84,396	-36,756	-90529
4	C, C	-22,439	-55,571	-44,585	-30,772	-38,660	-39,303	86,420	-43728
5	AN, W	16,837	-7,357	4,235	14,555	9,813	9,408	104,407	5175
6	BN, AN	-67,623	-78,931	-71,199	-67,892	-65,924	-66,263	-8,250	-71766
7	AN, W	-43,315	-57,274	-45,817	-44,132	-38,525	-38,890	15,149	-46900
8	D, D	-83,346	-91,538	-85,092	-83,825	-78,260	-78,558	-3,731	-85628
9	W, W	-70,507	-85,448	-70,599	-69,695	-62,912	-63,133	15,864	-71762
10	W, W	-84,188	-96,694	-84,116	-83,313	-78,762	-78,847	-11,931	-85178
11	W, AN	-118,306	-128,472	-118,129	-117,513	-113,557	-113,911	-61,463	-119193
12	D, D	-121,115	-129,421	-121,664	-121,203	-117,691	-118,139	-67,911	-122536
13	W, W	-82,237	-92,330	-81,410	-81,078	-76,011	-76,302	-20,570	-82108
14	D, D	-113,879	-120,933	-113,962	-113,579	-109,740	-110,108	-61,242	-114210
15	C, C	-102,501	-109,451	-102,001	-101,652	-97,992	-98,281	2,621	-102889
16	D, C	-76,754	-84,134	-75,088	-74,782	-71,080	-71,382	53,559	-76066
17	C, C	-59,814	-67,193	-57,703	-57,816	-53,455	-53,724	28,861	-58886
18	C, C	5,500	-4,473	4,718	5,180	8,826	8,418	83,741	3998
19	C, C	11,891	2,255	10,868	11,349	14,609	14,085	81,302	10243
20	AN, W	19,504	9,631	19,172	20,573	23,212	22,749	72,845	19125
21	C, C	-32,313	-41,613	-34,510	-33,717	-30,288	-30,422	15,796	-33705
22	W, W	5,978	-6,426	6,372	6,804	11,050	10,867	59,063	3359
23	W, W	-55,264	-65,498	-53,645	-53,405	-49,838	-50,069	5,880	-56585

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	-71,849	-80,114	-71,134	-70,817	-67,702	-68,153	-11,516	-72981
25	W, W	-75,615	-87,106	-76,434	-76,082	-73,575	-74,066	-15,345	-78144
26	W, AN	-127,581	-136,372	-128,118	-128,014	-125,648	-126,034	-78,467	-129528
27	AN, AN	-103,323	-111,687	-103,725	-103,370	-100,580	-100,894	-49,422	-104918
28	D, D	-108,958	-117,376	-109,047	-108,978	-105,043	-105,317	-56,868	-110142
29	D, D	-99,024	-108,819	-99,002	-98,805	-94,178	-94,372	-9,411	-100200
30	AN, BN	-92,878	-103,039	-91,884	-91,748	-86,170	-86,273	560	-93199
31	BN, D	-98,691	-110,417	-98,279	-98,019	-91,873	-92,256	-35,314	-99548
32	AN, W	-102,852	-122,536	-104,693	-104,493	-92,990	-93,490	-40,462	-105885
33	W, W	-116,548	-130,787	-118,253	-118,124	-110,304	-110,568	-55,924	-119384
34	D, C	-119,746	-129,538	-120,166	-120,257	-114,459	-114,636	-63,983	-121167
35	C, C	-87,349	-97,860	-87,804	-87,866	-81,908	-81,940	25,478	-88440
36	D, BN	-83,804	-93,453	-83,735	-83,728	-77,313	-77,595	31,220	-84445
37	BN, AN	-72,349	-82,969	-71,132	-71,105	-64,197	-64,613	-6,672	-72348
38	W, W	-112,414	-124,031	-109,562	-109,350	-100,797	-101,553	-39,707	-111368
39	BN, D	-140,300	-149,535	-138,680	-138,456	-132,381	-132,675	-79,064	-139654
40	D, C	-115,057	-124,510	-114,730	-114,685	-108,858	-109,169	-56,594	-115977
41	C, C	-47,539	-71,203	-61,937	-57,436	-56,318	-56,752	10,691	-60455
42	C, C	-8,395	-27,792	-18,642	-15,016	-13,654	-14,109	59,709	-17323
<b>Average</b>		<b>-74,414</b>	<b>-86,196</b>	<b>-75,907</b>	<b>-74,756</b>	<b>-70,494</b>	<b>-70,856</b>	<b>-4,383</b>	<b>-76758</b>
<b>Maximum</b>		<b>19,504</b>	<b>9,631</b>	<b>19,172</b>	<b>20,573</b>	<b>23,212</b>	<b>22,749</b>	<b>104,407</b>	<b>19125</b>
<b>Minimum</b>		<b>-140,300</b>	<b>-149,535</b>	<b>-138,680</b>	<b>-138,456</b>	<b>-132,381</b>	<b>-132,675</b>	<b>-79,064</b>	<b>-139654</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-179. Simulated Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 11 (SR11)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	-41,508	-48,090	-42,167	-42,190	-40,171	-40,367	-24,826	-42345
2	W, W	-46,627	-49,609	-47,036	-47,099	-45,148	-45,302	-30,786	-47239
3	C, C	-19,902	-19,999	-20,336	-20,426	-18,325	-18,470	2,502	-20524
4	C, C	95,350	89,517	113,610	113,662	115,456	115,303	124,025	113433
5	AN, W	71,942	66,403	59,735	59,766	61,365	61,301	96,332	59598
6	BN, AN	31,401	29,122	31,126	31,123	32,890	32,849	48,619	30835
7	AN, W	7,504	6,462	6,577	6,510	8,459	8,410	25,187	6273
8	D, D	-19,735	-18,798	-19,674	-19,735	-17,624	-17,706	-5,117	-19962
9	W, W	-19,549	-23,472	-20,558	-20,665	-18,504	-18,572	-1,773	-20874
10	W, W	-31,678	-37,000	-32,490	-32,572	-30,714	-30,757	-18,635	-32793
11	W, AN	-97,352	-93,576	-97,493	-97,529	-95,960	-95,994	-68,706	-97731
12	D, D	-71,699	-73,817	-72,286	-72,315	-70,843	-70,919	-54,410	-72530
13	W, W	-52,944	-57,367	-55,236	-55,272	-53,728	-53,775	-32,169	-55432
14	D, D	-39,226	-39,267	-37,510	-37,548	-36,134	-36,167	-12,483	-37671
15	C, C	21,610	17,706	22,107	22,048	23,286	23,303	55,174	21946
16	D, C	57,441	55,488	57,700	57,763	58,971	59,214	83,949	57665
17	C, C	65,686	61,386	65,394	65,296	66,731	66,479	89,489	65999
18	C, C	81,458	78,678	82,480	82,950	83,746	83,619	103,691	82509
19	C, C	78,746	76,463	78,608	78,985	79,964	79,854	97,268	78106
20	AN, W	43,274	42,776	40,512	39,906	41,748	41,574	65,950	42215
21	C, C	46,105	40,012	42,083	41,945	43,224	43,122	63,479	43598
22	W, W	38,986	26,830	37,032	36,704	37,873	37,882	55,631	36563
23	W, W	-10,352	-19,243	-11,045	-10,854	-9,767	-9,796	4,847	-11610

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	-21,019	-27,362	-25,138	-25,052	-24,092	-24,087	-7,822	-25533
25	W, W	-44,696	-39,140	-38,565	-38,484	-37,637	-37,692	-28,325	-38943
26	W, AN	-104,526	-102,571	-102,856	-102,725	-102,050	-102,096	-85,198	-103263
27	AN, AN	-50,341	-51,988	-51,111	-51,108	-50,320	-50,445	-36,628	-51468
28	D, D	-47,270	-48,418	-46,200	-46,206	-45,043	-45,098	-26,255	-46527
29	D, D	-35,455	-37,907	-35,112	-35,073	-33,656	-33,709	-9,712	-35474
30	AN, BN	-34,189	-35,928	-33,760	-33,728	-32,005	-32,059	-8,405	-34112
31	BN, D	-36,546	-40,158	-36,380	-36,413	-34,202	-34,328	-7,697	-36671
32	AN, W	-50,584	-56,732	-46,120	-46,144	-43,608	-43,717	-25,920	-46406
33	W, W	-65,658	-65,244	-69,392	-69,292	-66,945	-67,056	-44,106	-69649
34	D, C	-71,382	-71,853	-70,835	-70,776	-68,498	-68,783	-45,437	-71084
35	C, C	-4,671	-4,663	-4,462	-4,405	-1,888	-2,323	21,090	-5012
36	D, BN	18,222	15,240	17,688	17,676	19,783	20,098	47,716	18008
37	BN, AN	-7,364	-12,140	-6,545	-6,535	-4,068	-4,222	15,921	-6978
38	W, W	455	-5,881	789	783	3,377	3,238	19,574	569
39	BN, D	-84,093	-82,637	-83,755	-83,762	-81,462	-81,508	-57,041	-84070
40	D, C	-13,466	-15,444	-13,096	-13,117	-10,850	-11,061	9,736	-13350
41	C, C	61,709	58,427	78,989	79,238	81,051	80,875	89,001	78816
42	C, C	91,001	87,829	77,827	78,156	79,694	79,504	121,638	77830
<b>Average</b>		<b>-7,403</b>	<b>-10,142</b>	<b>-7,307</b>	<b>-7,298</b>	<b>-5,610</b>	<b>-5,700</b>	<b>14,509</b>	<b>-7459</b>
<b>Maximum</b>		<b>95,350</b>	<b>89,517</b>	<b>113,610</b>	<b>113,662</b>	<b>115,456</b>	<b>115,303</b>	<b>124,025</b>	<b>113433</b>
<b>Minimum</b>		<b>-104,526</b>	<b>-102,571</b>	<b>-102,856</b>	<b>-102,725</b>	<b>-102,050</b>	<b>-102,096</b>	<b>-85,198</b>	<b>-103263</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-180. Simulated Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 12 (SR12)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	86,691	82,926	86,455	86,399	88,963	88,675	103,915	86123
2	W, W	77,587	73,975	77,535	77,411	79,924	79,699	95,311	77149
3	C, C	103,406	99,819	103,451	103,396	105,849	105,616	122,306	103091
4	C, C	172,736	168,487	172,333	172,603	174,656	174,490	190,876	172028
5	AN, W	186,360	182,746	185,929	186,394	187,946	187,898	201,872	185766
6	BN, AN	169,643	166,723	169,731	169,784	171,935	171,773	184,643	169295
7	AN, W	136,714	133,749	136,848	136,772	139,149	139,024	151,724	136371
8	D, D	116,578	113,813	116,769	116,670	119,332	119,233	132,829	116300
9	W, W	95,860	92,496	96,184	96,009	98,746	98,648	113,090	95663
10	W, W	78,228	74,966	78,562	78,499	80,688	80,609	94,790	78138
11	W, AN	61,898	58,819	62,253	62,187	64,070	64,000	78,406	61820
12	D, D	74,191	71,317	74,315	74,269	76,140	76,000	91,737	73962
13	W, W	79,651	76,576	79,785	79,734	81,718	81,644	97,837	79406
14	D, D	94,038	91,288	94,379	94,311	96,198	96,122	112,591	94070
15	C, C	142,662	139,096	143,036	142,964	144,652	144,624	163,447	142723
16	D, C	199,855	198,220	200,213	200,251	201,891	202,092	217,731	199996
17	C, C	212,474	208,378	212,393	212,298	214,118	213,758	229,340	212888
18	C, C	232,537	229,819	233,895	234,271	235,443	235,242	247,510	233726
19	C, C	234,659	232,664	234,826	235,093	236,454	236,368	247,123	234089
20	AN, W	201,665	195,280	200,198	199,482	201,824	201,626	215,645	202085
21	C, C	199,145	192,877	197,927	197,710	199,574	199,360	214,138	199532
22	W, W	175,752	173,165	176,431	176,129	177,892	177,758	191,571	175506
23	W, W	120,604	117,200	121,022	121,160	122,862	122,718	137,263	120123

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	116,258	112,880	116,558	116,607	118,157	118,045	134,114	115925
25	W, W	81,102	77,663	81,236	81,329	82,690	82,558	98,792	80735
26	W, AN	52,045	48,737	52,128	52,142	53,364	53,196	69,216	51581
27	AN, AN	83,130	79,910	83,220	83,227	84,552	84,374	102,185	82701
28	D, D	86,374	83,018	86,548	86,531	88,200	88,110	106,532	86019
29	D, D	99,894	96,248	100,152	100,143	102,178	102,048	121,268	99582
30	AN, BN	96,203	92,651	96,632	96,628	98,989	98,869	119,394	96066
31	BN, D	96,759	91,898	97,062	97,068	99,839	99,648	122,302	96557
32	AN, W	70,574	65,248	70,523	70,518	73,837	73,661	93,194	70027
33	W, W	57,585	52,874	57,494	57,490	60,506	60,377	78,934	57051
34	D, C	71,101	66,899	70,962	70,968	73,724	73,491	91,577	70547
35	C, C	130,827	127,569	130,622	130,718	133,898	133,357	152,422	129905
36	D, BN	151,012	145,647	150,720	150,689	153,492	153,740	174,219	150956
37	BN, AN	109,454	105,474	110,264	110,251	113,457	113,253	130,722	109632
38	W, W	99,814	95,383	100,413	100,392	103,766	103,548	120,926	99928
39	BN, D	58,882	55,458	59,362	59,444	62,143	62,013	79,247	59000
40	D, C	120,522	117,234	120,876	120,922	123,648	123,405	140,586	120504
41	C, C	195,718	191,676	195,658	195,948	198,201	197,994	213,884	195268
42	C, C	219,566	216,570	219,555	219,949	221,594	221,431	235,930	219516
<b>Average</b>		<b>124,994</b>	<b>121,368</b>	<b>125,106</b>	<b>125,113</b>	<b>127,292</b>	<b>127,145</b>	<b>143,360</b>	<b>124794</b>
<b>Maximum</b>		<b>234,659</b>	<b>232,664</b>	<b>234,826</b>	<b>235,093</b>	<b>236,454</b>	<b>236,368</b>	<b>247,510</b>	<b>234089</b>
<b>Minimum</b>		<b>52,045</b>	<b>48,737</b>	<b>52,128</b>	<b>52,142</b>	<b>53,364</b>	<b>53,196</b>	<b>69,216</b>	<b>51581</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-181. Simulated Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 13 (SR13)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	568,004	561,343	568,921	568,632	572,785	572,636	610,283	567837
2	W, W	611,917	604,747	612,861	612,626	616,956	616,304	653,896	611638
3	C, C	624,774	617,657	625,705	625,498	629,596	629,001	663,231	624481
4	C, C	631,918	611,951	619,712	627,707	624,687	624,010	702,369	619974
5	AN, W	872,988	857,464	865,974	871,870	866,171	865,860	937,626	866023
6	BN, AN	693,949	683,848	692,446	694,129	694,884	694,519	747,757	691228
7	AN, W	711,345	702,295	710,726	711,545	714,805	714,151	754,815	709503
8	D, D	637,297	628,885	637,214	637,813	641,641	641,192	698,496	636240
9	W, W	666,214	657,657	666,506	666,902	670,764	670,441	725,101	665346
10	W, W	837,217	828,705	837,641	837,961	841,893	841,594	885,811	836397
11	W, AN	608,353	599,526	609,066	609,269	613,730	612,960	655,339	607628
12	D, D	579,416	570,499	580,269	580,292	584,608	583,980	626,384	578821
13	W, W	670,199	660,992	671,168	671,131	674,600	674,990	718,126	669696
14	D, D	592,253	583,010	593,172	593,114	597,338	597,086	640,689	591880
15	C, C	569,298	560,487	570,275	570,331	574,442	574,100	647,287	569028
16	D, C	622,425	613,606	623,951	623,869	627,533	627,563	718,026	622337
17	C, C	618,016	609,496	619,160	619,027	622,987	622,819	687,719	617962
18	C, C	706,336	697,193	706,281	706,332	710,115	709,328	768,934	705006
19	C, C	726,203	716,439	726,273	726,338	730,323	729,863	786,996	724748
20	AN, W	718,610	709,035	719,342	719,220	723,116	722,728	771,768	718301
21	C, C	705,405	696,241	706,415	706,410	710,760	710,274	755,673	705605
22	W, W	773,421	764,560	774,412	774,681	778,952	778,600	825,005	773096
23	W, W	715,392	705,791	716,756	716,820	721,128	720,829	767,530	715096

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	834,342	825,075	835,456	835,518	840,041	839,430	885,313	833910
25	W, W	731,429	721,878	732,410	732,522	736,952	736,514	783,300	730961
26	W, AN	565,582	556,016	566,609	566,439	570,764	570,352	617,138	564968
27	AN, AN	652,618	642,803	653,567	653,652	657,816	657,444	705,432	651998
28	D, D	614,341	604,369	615,224	615,175	619,556	619,052	666,686	613623
29	D, D	612,154	602,001	613,094	613,169	617,200	616,913	688,136	611513
30	AN, BN	595,452	584,659	596,428	596,570	601,040	600,505	674,215	594790
31	BN, D	597,485	587,096	598,670	598,666	603,191	602,647	657,289	596912
32	AN, W	619,214	608,474	620,499	620,415	625,169	624,727	676,272	618849
33	W, W	650,859	638,860	652,040	652,001	656,937	656,667	707,174	650246
34	D, C	608,380	595,138	609,247	609,187	614,088	613,940	665,451	607795
35	C, C	623,409	611,977	624,503	624,069	629,232	629,057	712,948	622935
36	D, BN	609,300	598,094	610,202	610,137	615,367	614,964	699,390	608789
37	BN, AN	600,669	589,281	602,104	601,964	607,313	606,607	664,646	600315
38	W, W	730,437	718,847	731,602	731,752	737,328	736,938	793,195	730184
39	BN, D	641,561	629,872	642,986	643,010	648,295	648,090	703,378	641499
40	D, C	647,029	635,605	648,457	648,369	653,800	653,199	706,227	646762
41	C, C	689,406	670,373	681,902	684,733	686,878	686,298	743,200	682051
42	C, C	699,116	686,164	693,530	695,695	697,121	696,363	745,451	693735
<b>Average</b>		<b>661,518</b>	<b>651,143</b>	<b>661,495</b>	<b>662,013</b>	<b>665,759</b>	<b>665,346</b>	<b>720,088</b>	<b>660231</b>
<b>Maximum</b>		<b>872,988</b>	<b>857,464</b>	<b>865,974</b>	<b>871,870</b>	<b>866,171</b>	<b>865,860</b>	<b>937,626</b>	<b>866023</b>
<b>Minimum</b>		<b>565,582</b>	<b>556,016</b>	<b>566,609</b>	<b>566,439</b>	<b>570,764</b>	<b>570,352</b>	<b>610,283</b>	<b>564968</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-182. Simulated Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 14 (SR14)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	54,411	54,572	54,365	54,366	54,372	54,374	52,196	54366
2	W, W	51,724	52,691	51,565	51,571	51,191	51,200	49,593	51681
3	C, C	45,124	45,861	45,192	45,176	45,211	45,230	44,188	45296
4	C, C	45,134	45,748	45,035	45,009	44,833	44,815	43,162	45125
5	AN, W	112,685	112,833	112,681	112,640	112,630	112,590	111,050	112680
6	BN, AN	53,314	53,690	53,429	53,457	53,427	53,419	52,272	53435
7	AN, W	77,857	77,896	77,881	77,865	77,656	77,654	75,686	77872
8	D, D	48,445	49,283	48,440	48,441	48,457	48,458	47,660	48435
9	W, W	67,132	67,225	67,126	67,126	67,151	67,149	65,077	67118
10	W, W	142,507	142,472	142,517	142,510	142,307	142,305	140,273	142512
11	W, AN	57,980	56,808	58,420	58,420	58,212	58,208	53,647	58409
12	D, D	47,273	44,748	47,257	47,257	47,195	47,194	46,116	47424
13	W, W	81,273	77,512	81,162	81,167	81,037	81,060	78,616	81152
14	D, D	45,582	40,830	45,139	45,150	45,377	45,372	44,200	45328
15	C, C	43,452	41,899	43,374	43,374	43,340	43,342	42,721	43459
16	D, C	43,935	43,951	43,956	43,945	43,956	43,955	43,417	43939
17	C, C	40,778	40,814	40,704	40,688	40,623	40,646	39,317	40669
18	C, C	53,328	53,575	53,302	53,217	53,169	53,211	51,230	53304
19	C, C	50,267	50,494	50,220	50,225	50,206	50,233	48,104	50314
20	AN, W	92,748	92,631	92,665	92,667	92,707	92,682	91,200	92622
21	C, C	45,784	45,949	45,642	45,786	45,609	45,588	43,867	45801
22	W, W	105,251	105,262	105,152	105,191	105,152	105,139	103,974	105236
23	W, W	65,587	65,554	65,587	65,591	65,593	65,607	64,339	65579

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	78,516	78,520	78,552	78,552	78,662	78,661	77,576	78546
25	W, W	122,074	122,049	122,086	122,085	122,096	122,102	122,156	122071
26	W, AN	46,196	46,164	46,206	46,199	46,222	46,220	46,031	46201
27	AN, AN	52,036	51,985	52,049	52,016	52,054	52,085	50,945	52044
28	D, D	51,544	51,516	51,552	51,554	51,570	51,562	50,331	51544
29	D, D	44,583	44,575	44,602	44,590	44,587	44,587	42,702	44595
30	AN, BN	45,831	45,880	45,810	45,816	45,790	45,784	44,059	45824
31	BN, D	47,306	47,502	47,350	47,342	47,268	47,280	45,378	47341
32	AN, W	67,149	67,065	67,108	67,108	67,120	67,119	66,092	67104
33	W, W	53,270	53,378	53,425	53,425	53,445	53,443	52,589	53421
34	D, C	46,946	46,961	46,920	46,949	46,928	46,929	45,379	46931
35	C, C	50,284	50,386	50,230	50,222	49,976	50,027	48,464	50220
36	D, BN	44,886	45,442	44,641	44,625	44,313	44,354	42,782	44892
37	BN, AN	54,272	54,662	54,110	54,101	53,930	53,959	52,484	54265
38	W, W	72,410	72,414	72,412	72,405	72,361	72,366	71,781	72411
39	BN, D	45,773	45,815	45,818	45,831	45,803	45,809	44,544	45828
40	D, C	46,889	47,167	46,901	46,886	46,700	46,684	44,889	46954
41	C, C	43,564	44,332	43,468	43,462	43,361	43,404	41,660	43499
42	C, C	43,095	43,710	43,118	43,064	43,038	43,080	41,443	43098
<b>Average</b>		<b>60,195</b>	<b>60,043</b>	<b>60,171</b>	<b>60,168</b>	<b>60,110</b>	<b>60,116</b>	<b>58,647</b>	<b>60203</b>
<b>Maximum</b>		<b>142,507</b>	<b>142,472</b>	<b>142,517</b>	<b>142,510</b>	<b>142,307</b>	<b>142,305</b>	<b>140,273</b>	<b>142512</b>
<b>Minimum</b>		<b>40,778</b>	<b>40,814</b>	<b>40,704</b>	<b>40,688</b>	<b>40,623</b>	<b>40,646</b>	<b>39,317</b>	<b>40669</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-183. Simulated Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 15 (SR15)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	498,682	469,581	498,051	497,559	506,628	505,898	571,695	496428
2	W, W	395,718	366,143	395,981	395,376	405,107	404,380	471,126	394448
3	C, C	447,708	420,767	448,579	447,983	450,894	450,319	521,490	446438
4	C, C	455,669	429,402	454,769	455,419	459,616	458,918	528,179	452878
5	AN, W	1,030,195	1,002,880	1,028,922	1,030,429	1,037,272	1,036,453	1,114,370	1027051
6	BN, AN	473,051	446,058	473,510	473,638	482,066	481,673	548,022	471095
7	AN, W	815,592	779,689	818,217	817,633	834,317	833,013	940,752	813468
8	D, D	397,964	373,156	398,825	398,661	408,870	408,359	479,072	396558
9	W, W	667,630	632,056	670,894	670,355	685,406	684,265	797,369	666788
10	W, W	546,731	510,989	550,865	550,197	566,690	565,343	694,299	546214
11	W, AN	389,556	362,295	391,902	391,556	402,610	401,738	502,725	388950
12	D, D	409,764	385,672	410,557	410,270	419,905	419,162	495,605	408876
13	W, W	569,711	536,070	573,451	572,935	587,505	586,800	705,666	569829
14	D, D	404,177	374,157	407,057	406,671	417,351	416,792	506,789	403873
15	C, C	360,857	334,261	364,563	364,130	372,580	372,223	449,121	361756
16	D, C	403,001	376,480	406,841	406,465	416,809	416,204	496,592	403964
17	C, C	431,653	404,466	434,582	434,622	443,001	442,308	516,725	432216
18	C, C	477,575	450,739	479,453	479,804	487,410	486,811	560,849	477555
19	C, C	474,859	449,330	476,399	476,663	484,000	483,451	553,084	473814
20	AN, W	496,398	466,602	497,738	498,252	505,214	504,729	569,912	495241
21	C, C	518,013	491,209	519,060	519,123	527,598	527,060	590,016	516587
22	W, W	958,543	919,410	963,507	963,172	977,744	976,583	1,087,695	958008
23	W, W	683,987	645,717	686,732	686,629	698,526	697,458	801,895	682636

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	609,626	570,672	610,258	610,141	623,227	622,061	751,004	605821
25	W, W	518,848	483,894	520,558	520,401	532,285	531,202	649,285	516251
26	W, AN	352,712	320,854	353,648	353,713	361,608	360,895	448,708	350618
27	AN, AN	427,481	392,540	427,529	427,546	437,095	436,513	521,771	424789
28	D, D	417,053	381,739	417,684	417,660	428,659	428,139	505,052	414389
29	D, D	378,404	342,253	379,192	379,275	390,478	390,022	467,216	376160
30	AN, BN	404,312	369,707	405,126	405,136	416,345	415,482	495,620	402449
31	BN, D	400,923	361,853	400,585	400,581	412,941	412,062	490,834	397682
32	AN, W	626,479	580,492	625,710	625,696	638,969	638,267	723,554	622568
33	W, W	664,246	607,859	667,028	666,839	687,982	686,277	846,041	661335
34	D, C	421,882	383,746	421,732	421,730	434,053	433,241	520,430	419440
35	C, C	396,542	359,146	396,595	396,538	409,021	408,248	489,876	394403
36	D, BN	434,310	399,666	435,544	435,481	450,094	449,334	524,265	433199
37	BN, AN	759,887	721,621	762,314	762,254	778,620	777,719	865,483	759000
38	W, W	779,379	723,569	785,148	784,848	806,763	805,066	962,204	778212
39	BN, D	497,357	464,282	499,304	499,219	512,388	511,687	604,949	496166
40	D, C	410,045	378,888	410,965	411,068	423,462	422,837	502,188	408804
41	C, C	483,747	456,529	483,944	485,245	493,885	493,513	563,141	482535
42	C, C	479,985	446,846	478,031	480,022	487,315	486,688	557,154	476957
<b>Average</b>		<b>518,339</b>	<b>485,078</b>	<b>519,794</b>	<b>519,784</b>	<b>531,007</b>	<b>530,219</b>	<b>618,853</b>	<b>516796</b>
<b>Maximum</b>		<b>1,030,195</b>	<b>1,002,880</b>	<b>1,028,922</b>	<b>1,030,429</b>	<b>1,037,272</b>	<b>1,036,453</b>	<b>1,114,370</b>	<b>1027051</b>
<b>Minimum</b>		<b>352,712</b>	<b>320,854</b>	<b>353,648</b>	<b>353,713</b>	<b>361,608</b>	<b>360,895</b>	<b>448,708</b>	<b>350618</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-184. Simulated Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 16 (SR16)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	33,543	32,823	33,687	33,640	34,155	34,119	37,328	33511
2	W, W	28,938	28,158	29,085	29,043	29,571	29,521	32,990	28897
3	C, C	50,047	49,256	50,197	50,156	50,631	50,620	54,063	50001
4	C, C	75,381	74,719	75,559	75,516	76,550	76,461	79,024	75402
5	AN, W	68,076	67,233	68,215	68,180	68,257	68,192	72,420	68051
6	BN, AN	41,810	40,907	41,989	41,957	42,429	42,372	46,208	41780
7	AN, W	38,082	37,219	38,279	38,246	38,748	38,690	42,414	38056
8	D, D	41,005	39,944	41,192	41,142	41,680	41,645	45,789	40964
9	W, W	36,567	35,576	36,779	36,722	37,312	37,271	41,348	36542
10	W, W	30,644	29,492	30,854	30,797	31,462	31,388	35,841	30595
11	W, AN	16,585	15,329	16,802	16,753	17,616	17,378	22,141	16524
12	D, D	26,899	25,498	27,134	27,083	27,932	27,750	32,508	26862
13	W, W	26,686	25,000	26,994	26,923	27,187	27,595	33,573	26676
14	D, D	27,123	25,367	27,431	27,341	27,914	28,081	33,933	27110
15	C, C	41,764	39,882	42,063	41,974	42,715	42,767	48,172	41774
16	D, C	54,657	52,727	55,031	54,968	55,538	55,694	62,100	54639
17	C, C	64,099	62,270	64,433	64,335	65,096	65,172	70,880	64087
18	C, C	72,526	70,746	72,929	72,843	73,577	73,334	79,654	72608
19	C, C	73,586	71,818	73,948	73,877	74,625	74,581	80,328	73620
20	AN, W	57,607	55,820	57,934	57,865	58,618	58,560	64,527	57591
21	C, C	56,879	55,085	57,221	57,157	57,935	57,902	63,761	56901
22	W, W	49,308	47,632	49,668	49,590	50,406	50,351	57,088	49343
23	W, W	42,364	40,661	42,736	42,663	43,526	43,472	49,894	42426

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	35,062	33,326	35,380	35,324	36,188	36,126	42,425	35061
25	W, W	31,706	29,891	32,037	31,955	32,867	32,797	39,790	31697
26	W, AN	24,658	22,714	24,997	24,897	25,823	25,761	32,839	24638
27	AN, AN	27,592	25,604	27,892	27,865	28,795	28,728	35,732	27559
28	D, D	41,675	39,570	41,951	41,956	42,856	42,824	50,129	41585
29	D, D	51,900	49,610	52,255	52,206	53,196	53,117	61,122	51842
30	AN, BN	57,213	54,726	57,564	57,548	58,611	58,469	66,172	57139
31	BN, D	54,386	51,981	54,781	54,733	55,794	55,677	63,434	54360
32	AN, W	41,386	39,061	41,765	41,709	42,785	42,682	49,932	41350
33	W, W	28,148	25,685	28,544	28,489	29,558	29,493	37,141	28096
34	D, C	47,356	44,754	47,682	47,668	48,775	48,674	56,441	47292
35	C, C	59,856	57,222	60,267	60,164	61,180	61,206	68,744	59844
36	D, BN	61,892	59,295	62,276	62,213	63,328	63,262	70,823	61847
37	BN, AN	56,084	53,464	56,481	56,449	57,560	57,428	65,177	56068
38	W, W	33,215	30,625	33,636	33,554	34,712	34,655	42,160	33272
39	BN, D	47,439	44,750	47,826	47,751	48,930	48,829	56,675	47414
40	D, C	77,821	75,276	78,189	78,105	79,233	79,089	86,574	77792
41	C, C	94,979	92,572	95,437	95,355	96,399	96,289	104,140	95016
42	C, C	92,455	91,680	92,546	92,720	93,297	92,994	95,914	92401
<b>Average</b>		<b>48,071</b>	<b>46,309</b>	<b>48,373</b>	<b>48,320</b>	<b>49,128</b>	<b>49,072</b>	<b>55,032</b>	<b>48053</b>
<b>Maximum</b>		<b>94,979</b>	<b>92,572</b>	<b>95,437</b>	<b>95,355</b>	<b>96,399</b>	<b>96,289</b>	<b>104,140</b>	<b>95016</b>
<b>Minimum</b>		<b>16,585</b>	<b>15,329</b>	<b>16,802</b>	<b>16,753</b>	<b>17,616</b>	<b>17,378</b>	<b>22,141</b>	<b>16524</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-185. Simulated Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 17 (SR17)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	20,348	19,355	20,518	20,433	20,996	20,974	24,702	20288
2	W, W	47,223	46,225	47,378	47,333	47,832	47,785	51,358	47185
3	C, C	108,973	108,115	109,135	109,096	109,566	109,478	112,810	108940
4	C, C	106,389	106,265	106,423	106,413	106,480	106,469	106,933	106391
5	AN, W	105,838	104,620	106,092	106,018	106,677	106,590	111,308	105790
6	BN, AN	7,450	6,208	7,632	7,568	8,222	8,144	12,558	7409
7	AN, W	-34,328	-35,593	-34,150	-34,263	-33,510	-33,627	-28,940	-34402
8	D, D	11,658	10,532	11,907	11,809	12,480	12,407	16,701	11563
9	W, W	25,667	24,514	25,896	25,869	26,506	26,389	30,681	25658
10	W, W	-48,933	-50,547	-48,662	-48,731	-47,925	-48,000	-42,156	-48967
11	W, AN	-100,428	-102,036	-100,212	-100,237	-99,464	-99,505	-93,644	-100546
12	D, D	-8,000	-9,668	-7,685	-7,709	-6,967	-7,021	-1,222	-8006
13	W, W	-13,552	-15,528	-13,255	-13,346	-12,404	-12,534	-6,044	-13610
14	D, D	6,445	4,454	6,758	6,738	7,596	7,484	14,048	6316
15	C, C	54,276	53,394	54,431	54,586	55,172	54,961	58,577	54203
16	D, C	60,350	60,141	60,394	60,450	60,565	60,512	61,354	60353
17	C, C	67,859	67,792	67,878	67,878	67,901	67,900	68,144	67877
18	C, C	85,107	84,952	85,122	85,136	85,208	85,211	85,643	85112
19	C, C	69,313	69,274	69,320	69,309	69,331	69,334	69,462	69312
20	AN, W	120,931	119,215	121,178	121,151	121,865	121,824	127,526	120912
21	C, C	132,389	130,648	132,638	132,618	133,369	133,318	138,993	132387
22	W, W	70,705	68,714	71,038	70,980	71,887	71,844	78,619	70715
23	W, W	34,955	32,519	35,339	35,268	36,350	36,261	44,511	34922

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	-15,081	-17,334	-14,625	-14,732	-13,648	-13,736	-5,899	-15025
25	W, W	-2,277	-4,489	-1,901	-1,970	-938	-1,030	6,444	-2220
26	W, AN	-18,863	-21,095	-18,436	-18,528	-17,552	-17,628	-10,076	-18880
27	AN, AN	17,358	15,058	17,773	17,688	18,698	18,582	26,071	17362
28	D, D	57,110	54,941	57,389	57,394	58,309	58,181	65,229	57052
29	D, D	69,377	67,936	69,597	69,540	70,140	70,060	74,788	69334
30	AN, BN	80,798	79,059	80,999	81,020	81,744	81,709	87,532	80720
31	BN, D	95,530	94,161	95,734	95,711	96,297	96,254	100,644	95504
32	AN, W	73,790	70,795	74,152	74,130	75,392	75,272	85,283	73698
33	W, W	29,510	25,676	29,908	29,962	31,441	31,345	43,412	29434
34	D, C	64,305	60,589	64,869	64,779	66,297	66,246	76,976	64246
35	C, C	84,427	82,273	84,726	84,694	85,562	85,501	91,337	84391
36	D, BN	92,215	90,202	92,496	92,458	93,183	93,137	97,988	92210
37	BN, AN	135,515	131,978	136,006	135,966	137,412	137,296	147,282	135500
38	W, W	73,131	68,007	73,866	73,773	75,809	75,654	89,171	73136
39	BN, D	51,565	47,799	52,076	52,052	53,543	53,399	63,100	51561
40	D, C	118,297	116,415	118,542	118,507	119,241	119,158	123,675	118289
41	C, C	134,984	133,371	135,182	135,169	135,749	135,701	139,684	134986
42	C, C	74,361	74,324	74,366	74,368	74,380	74,379	74,473	74360
<b>Average</b>		<b>51,112</b>	<b>49,363</b>	<b>51,377</b>	<b>51,342</b>	<b>52,114</b>	<b>52,040</b>	<b>57,596</b>	<b>51082</b>
<b>Maximum</b>		<b>135,515</b>	<b>133,371</b>	<b>136,006</b>	<b>135,966</b>	<b>137,412</b>	<b>137,296</b>	<b>147,282</b>	<b>135500</b>
<b>Minimum</b>		<b>-100,428</b>	<b>-102,036</b>	<b>-100,212</b>	<b>-100,237</b>	<b>-99,464</b>	<b>-99,505</b>	<b>-93,644</b>	<b>-100546</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-186. Simulated Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 18 (SR18)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	-55,948	-95,876	-58,164	-57,742	-56,930	-55,771	-26,156	-58737
2	W, W	-71,716	-114,661	-73,537	-73,348	-72,305	-71,679	-47,276	-74066
3	C, C	-32,689	-56,291	-33,606	-33,715	-33,526	-33,392	-15,225	-34047
4	C, C	41,242	32,831	40,910	40,783	40,680	40,678	50,500	40747
5	AN, W	129,688	114,283	129,063	128,884	128,862	128,902	146,441	128771
6	BN, AN	-206,456	-259,039	-209,001	-209,487	-209,815	-209,582	-144,294	-210189
7	AN, W	-239,087	-280,294	-240,665	-241,141	-241,205	-241,071	-187,660	-241771
8	D, D	-288,682	-329,058	-290,359	-290,835	-290,255	-290,202	-235,800	-291509
9	W, W	-299,095	-341,749	-300,306	-300,954	-300,438	-300,374	-235,652	-301842
10	W, W	-1,058,911	-1,111,958	-1,060,371	-1,061,092	-1,058,670	-1,058,868	-975,882	-1062492
11	W, AN	-1,178,652	-1,225,956	-1,180,598	-1,180,652	-1,175,111	-1,178,803	-1,093,690	-1181814
12	D, D	-701,079	-749,417	-705,668	-706,132	-698,134	-704,691	-624,748	-707181
13	W, W	-770,026	-820,375	-773,005	-773,523	-775,228	-771,459	-682,714	-774694
14	D, D	-695,612	-743,579	-698,266	-698,683	-698,924	-696,747	-613,216	-699904
15	C, C	-380,580	-422,961	-382,593	-383,042	-382,375	-381,833	-306,428	-384124
16	D, C	-159,708	-201,359	-161,335	-161,875	-161,027	-160,325	-86,917	-162886
17	C, C	-5,905	-36,545	-6,941	-7,270	-6,538	-6,326	38,166	-8052
18	C, C	54,015	30,663	53,444	53,155	53,663	53,656	82,705	52538
19	C, C	73,558	62,755	73,270	73,096	73,418	73,402	91,762	72794
20	AN, W	104,923	92,272	104,792	104,601	104,927	104,856	123,829	104164
21	C, C	8,607	-2,754	8,367	8,212	8,905	8,769	27,280	7910
22	W, W	29,876	-10,581	28,938	28,505	29,216	29,071	81,014	27372
23	W, W	-301,475	-354,231	-302,712	-303,326	-301,400	-301,567	-208,056	-304871

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	-224,321	-281,165	-242,907	-244,248	-240,238	-240,551	-116,206	-245928
25	W, W	-501,793	-560,754	-511,432	-512,436	-508,212	-508,566	-390,687	-514365
26	W, AN	-799,674	-856,309	-806,225	-807,043	-803,801	-804,092	-708,458	-808607
27	AN, AN	-558,908	-611,989	-565,527	-566,261	-563,527	-563,788	-472,732	-567374
28	D, D	-440,600	-493,351	-446,503	-447,221	-444,195	-444,486	-350,279	-448616
29	D, D	-210,478	-265,759	-216,082	-216,824	-213,833	-214,009	-127,964	-218338
30	AN, BN	-74,326	-132,517	-79,718	-80,438	-77,549	-77,547	6,881	-81892
31	BN, D	-35,589	-88,885	-39,360	-39,884	-37,159	-37,619	15,368	-41071
32	AN, W	-69,279	-128,067	-73,779	-74,426	-71,148	-71,359	13,805	-76070
33	W, W	-185,975	-257,228	-191,081	-191,892	-185,912	-186,209	-78,242	-194035
34	D, C	-158,533	-218,395	-162,879	-163,548	-158,336	-158,558	-70,741	-165285
35	C, C	50,456	6,847	48,304	47,963	50,846	50,747	83,186	47015
36	D, BN	77,361	59,944	76,315	76,149	77,808	77,746	102,558	75657
37	BN, AN	83,779	66,654	82,618	82,460	84,143	84,080	111,590	82096
38	W, W	-234,064	-323,221	-239,234	-240,150	-235,167	-235,487	-104,697	-245254
39	BN, D	-265,702	-335,061	-269,766	-270,474	-264,865	-265,096	-149,696	-273772
40	D, C	-34,788	-89,665	-37,315	-37,823	-34,613	-34,772	22,794	-39962
41	C, C	62,198	48,823	61,573	61,489	62,469	62,453	78,072	61072
42	C, C	95,667	87,764	95,217	95,158	95,929	95,878	108,386	94914
<b>Average</b>		<b>-224,483</b>	<b>-266,577</b>	<b>-227,527</b>	<b>-227,977</b>	<b>-225,942</b>	<b>-226,062</b>	<b>-163,550</b>	<b>-229136</b>
<b>Maximum</b>		<b>129,688</b>	<b>114,283</b>	<b>129,063</b>	<b>128,884</b>	<b>128,862</b>	<b>128,902</b>	<b>146,441</b>	<b>128771</b>
<b>Minimum</b>		<b>-1,178,652</b>	<b>-1,225,956</b>	<b>-1,180,598</b>	<b>-1,180,652</b>	<b>-1,175,111</b>	<b>-1,178,803</b>	<b>-1,093,690</b>	<b>-1181814</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-187. Simulated Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 19 (SR19)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	1,879	1,878	1,879	1,879	1,882	1,879	1,880	1879
2	W, W	3,886	3,885	3,886	3,886	3,886	3,886	3,886	3886
3	C, C	635	635	635	635	635	635	635	635
4	C, C	932	932	932	932	932	932	932	932
5	AN, W	24,950	24,949	24,950	24,950	24,952	24,950	24,952	24950
6	BN, AN	10,895	10,894	10,895	10,895	10,895	10,895	10,896	10895
7	AN, W	19,466	19,464	19,466	19,466	19,467	19,466	19,468	19466
8	D, D	-2,859	-2,860	-2,859	-2,859	-2,859	-2,859	-2,858	-2859
9	W, W	3,829	3,828	3,829	3,829	3,829	3,829	3,830	3828
10	W, W	46,723	46,719	46,723	46,722	46,723	46,723	46,727	46722
11	W, AN	11,042	11,039	11,041	11,041	11,041	11,041	11,044	11041
12	D, D	1,317	1,316	1,316	1,316	1,316	1,316	1,317	1316
13	W, W	8,937	8,932	8,936	8,934	8,933	8,934	8,937	8934
14	D, D	-3,797	-3,799	-3,797	-3,798	-3,798	-3,798	-3,796	-3798
15	C, C	818	817	818	818	817	817	820	820
16	D, C	1,859	1,860	1,859	1,860	1,859	1,859	1,859	1860
17	C, C	585	585	585	585	585	585	585	585
18	C, C	573	573	573	573	573	573	573	573
19	C, C	56	56	56	56	56	56	56	56
20	AN, W	7,693	7,693	7,693	7,693	7,693	7,693	7,693	7693
21	C, C	1,756	1,756	1,756	1,756	1,756	1,756	1,757	1756
22	W, W	-4,638	-4,644	-4,637	-4,630	-4,637	-4,640	-4,631	-4636
23	W, W	-626	-632	-625	-622	-626	-628	-621	-625

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	-4,156	-4,161	-4,154	-4,154	-4,155	-4,156	-4,149	-4154
25	W, W	-17,969	-17,978	-17,972	-17,967	-17,972	-17,973	-17,967	-17972
26	W, AN	-11,840	-11,852	-11,844	-11,839	-11,844	-11,845	-11,837	-11844
27	AN, AN	221	215	220	222	219	219	225	220
28	D, D	1,104	1,102	1,104	1,104	1,104	1,104	1,106	1104
29	D, D	1,389	1,389	1,389	1,389	1,389	1,389	1,388	1389
30	AN, BN	2,445	2,445	2,445	2,445	2,445	2,445	2,445	2445
31	BN, D	275	275	275	275	275	275	275	275
32	AN, W	2,604	2,597	2,603	2,603	2,603	2,603	2,611	2602
33	W, W	-6,010	-6,018	-6,011	-6,011	-6,011	-6,011	-5,999	-6012
34	D, C	-6,692	-6,695	-6,693	-6,693	-6,693	-6,693	-6,686	-6688
35	C, C	1,852	1,852	1,852	1,852	1,852	1,852	1,853	1853
36	D, BN	1,404	1,404	1,404	1,404	1,404	1,404	1,404	1404
37	BN, AN	3,761	3,761	3,761	3,761	3,761	3,761	3,760	3761
38	W, W	-2,350	-2,358	-2,351	-2,350	-2,350	-2,351	-2,340	-2352
39	BN, D	-562	-565	-562	-561	-562	-562	-555	-563
40	D, C	617	616	617	617	617	617	617	617
41	C, C	182	183	182	182	182	182	182	182
42	C, C	91	91	91	91	91	91	91	91
<b>Average</b>		<b>2,435</b>	<b>2,433</b>	<b>2,435</b>	<b>2,435</b>	<b>2,435</b>	<b>2,435</b>	<b>2,437</b>	<b>2435</b>
<b>Maximum</b>		<b>46,723</b>	<b>46,719</b>	<b>46,723</b>	<b>46,722</b>	<b>46,723</b>	<b>46,723</b>	<b>46,727</b>	<b>46722</b>
<b>Minimum</b>		<b>-17,969</b>	<b>-17,978</b>	<b>-17,972</b>	<b>-17,967</b>	<b>-17,972</b>	<b>-17,973</b>	<b>-17,967</b>	<b>-17972</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-188. Simulated Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 20 (SR20)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	82,874	82,873	82,874	82,874	82,874	82,874	82,875	82874
2	W, W	69,618	69,617	69,618	69,618	69,618	69,618	69,619	69618
3	C, C	54,304	54,304	54,304	54,304	54,304	54,304	54,305	54304
4	C, C	52,424	52,424	52,424	52,424	52,424	52,425	52,426	52424
5	AN, W	108,282	108,281	108,282	108,282	108,282	108,282	108,283	108282
6	BN, AN	72,513	72,512	72,513	72,513	72,513	72,513	72,514	72513
7	AN, W	87,878	87,877	87,878	87,878	87,878	87,879	87,880	87878
8	D, D	58,548	58,548	58,549	58,548	58,548	58,549	58,550	58548
9	W, W	92,639	92,638	92,639	92,639	92,639	92,639	92,641	92639
10	W, W	170,871	170,869	170,871	170,870	170,871	170,871	170,873	170870
11	W, AN	90,832	90,830	90,832	90,832	90,832	90,832	90,834	90832
12	D, D	61,817	61,816	61,817	61,817	61,817	61,818	61,820	61817
13	W, W	83,947	83,946	83,947	83,947	83,947	83,947	83,950	83947
14	D, D	61,074	61,072	61,074	61,074	61,074	61,074	61,077	61074
15	C, C	55,041	55,040	55,041	55,041	55,042	55,042	55,044	55041
16	D, C	64,219	64,217	64,219	64,219	64,219	64,219	64,222	64219
17	C, C	54,114	54,111	54,114	54,114	54,114	54,114	54,117	54114
18	C, C	56,680	56,677	56,680	56,680	56,680	56,680	56,683	56680
19	C, C	51,414	51,412	51,414	51,414	51,414	51,414	51,417	51414
20	AN, W	67,188	67,186	67,188	67,188	67,188	67,188	67,191	67188
21	C, C	62,350	62,348	62,350	62,350	62,350	62,350	62,353	62350
22	W, W	99,843	99,841	99,843	99,843	99,843	99,843	99,846	99843
23	W, W	80,440	80,438	80,440	80,440	80,440	80,440	80,443	80440

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	115,444	115,441	115,444	115,444	115,444	115,444	115,448	115444
25	W, W	178,607	178,603	178,607	178,607	178,607	178,607	178,612	178607
26	W, AN	78,627	78,625	78,628	78,628	78,628	78,628	78,632	78628
27	AN, AN	62,381	62,378	62,382	62,382	62,382	62,382	62,387	62382
28	D, D	54,545	54,542	54,546	54,545	54,546	54,546	54,551	54545
29	D, D	61,077	61,075	61,078	61,078	61,078	61,078	61,084	61078
30	AN, BN	72,186	72,183	72,187	72,187	72,187	72,187	72,193	72187
31	BN, D	51,440	51,436	51,440	51,440	51,441	51,441	51,447	51440
32	AN, W	66,212	66,208	66,212	66,212	66,212	66,212	66,218	66212
33	W, W	66,596	66,592	66,596	66,596	66,597	66,597	66,603	66596
34	D, C	49,059	49,055	49,060	49,059	49,060	49,060	49,067	49059
35	C, C	68,160	68,156	68,160	68,160	68,161	68,161	68,168	68160
36	D, BN	60,241	60,236	60,241	60,241	60,242	60,242	60,248	60241
37	BN, AN	84,166	84,161	84,166	84,166	84,166	84,166	84,174	84166
38	W, W	131,228	131,222	131,228	131,228	131,229	131,229	131,238	131228
39	BN, D	52,412	52,406	52,412	52,412	52,412	52,412	52,420	52411
40	D, C	52,886	52,880	52,886	52,886	52,886	52,886	52,894	52885
41	C, C	50,775	50,770	50,775	50,775	50,776	50,776	50,785	50775
42	C, C	49,702	49,696	49,702	49,702	49,702	49,702	49,711	49702
<b>Average</b>		<b>74,873</b>	<b>74,870</b>	<b>74,873</b>	<b>74,873</b>	<b>74,873</b>	<b>74,873</b>	<b>74,877</b>	<b>74873</b>
<b>Maximum</b>		<b>178,607</b>	<b>178,603</b>	<b>178,607</b>	<b>178,607</b>	<b>178,607</b>	<b>178,607</b>	<b>178,612</b>	<b>178607</b>
<b>Minimum</b>		<b>49,059</b>	<b>49,055</b>	<b>49,060</b>	<b>49,059</b>	<b>49,060</b>	<b>49,060</b>	<b>49,067</b>	<b>49059</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-189. Simulated Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 21 (SR21)

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
1	W, W	158,243	158,243	158,243	158,243	158,243	158,243	158,243	158243
2	W, W	141,562	141,562	141,561	141,562	141,561	141,561	141,561	141562
3	C, C	17,905	17,905	17,905	17,905	17,905	17,905	17,905	17905
4	C, C	27,300	27,300	27,300	27,300	27,300	27,300	27,300	27300
5	AN, W	245,940	245,940	245,940	245,940	245,941	245,940	245,941	245940
6	BN, AN	220,689	220,689	220,689	220,689	220,689	220,689	220,689	220689
7	AN, W	289,381	289,379	289,381	289,381	289,381	289,381	289,383	289381
8	D, D	133,371	133,371	133,371	133,371	133,372	133,371	133,372	133372
9	W, W	204,240	204,240	204,240	204,240	204,240	204,240	204,240	204240
10	W, W	387,321	387,303	387,321	387,319	387,322	387,322	387,344	387319
11	W, AN	223,693	223,685	223,693	223,693	223,694	223,694	223,703	223694
12	D, D	111,097	111,096	111,096	111,096	111,097	111,097	111,097	111097
13	W, W	239,829	239,822	239,829	239,828	239,829	239,829	239,838	239829
14	D, D	122,571	122,569	122,570	122,570	122,570	122,570	122,572	122571
15	C, C	34,375	34,375	34,375	34,375	34,375	34,375	34,374	34375
16	D, C	31,236	31,237	31,236	31,236	31,236	31,236	31,235	31236
17	C, C	8,412	8,412	8,412	8,412	8,412	8,412	8,411	8412
18	C, C	59,613	59,614	59,613	59,613	59,613	59,613	59,612	59613
19	C, C	20,965	20,966	20,965	20,965	20,965	20,965	20,964	20965
20	AN, W	126,801	126,802	126,801	126,801	126,801	126,801	126,800	126801
21	C, C	103,196	103,197	103,196	103,196	103,196	103,196	103,194	103196
22	W, W	172,473	172,472	172,473	172,473	172,473	172,473	172,474	172473
23	W, W	186,738	186,732	186,738	186,737	186,738	186,738	186,745	186737

Year	WY Type (Sacramento Valley, San Joaquin Valley)	NAA (TAF)	Alt1 (TAF)	Alt2v1 (TAF)	Alt2v1wTUCP (TAF)	Alt2v2 (TAF)	Alt2v3 (TAF)	Alt3 (TAF)	Alt4 (TAF)
24	W, W	197,494	197,487	197,494	197,493	197,494	197,494	197,502	197493
25	W, W	221,350	221,326	221,349	221,348	221,351	221,350	221,383	221347
26	W, AN	93,609	93,591	93,609	93,608	93,610	93,609	93,634	93607
27	AN, AN	44,924	44,919	44,923	44,923	44,924	44,923	44,930	44923
28	D, D	47,043	47,041	47,043	47,042	47,043	47,042	47,045	47042
29	D, D	37,276	37,277	37,276	37,276	37,276	37,276	37,276	37276
30	AN, BN	49,545	49,547	49,545	49,545	49,545	49,545	49,542	49545
31	BN, D	61,046	61,048	61,046	61,046	61,046	61,046	61,043	61046
32	AN, W	187,954	187,949	187,954	187,954	187,954	187,954	187,961	187954
33	W, W	211,620	211,596	211,620	211,618	211,621	211,620	211,656	211617
34	D, C	38,025	38,018	38,025	38,025	38,026	38,025	38,036	38024
35	C, C	65,988	65,987	65,988	65,988	65,988	65,988	65,988	65987
36	D, BN	72,662	72,663	72,662	72,662	72,662	72,662	72,659	72662
37	BN, AN	102,291	102,292	102,292	102,292	102,292	102,292	102,290	102292
38	W, W	199,128	199,124	199,128	199,128	199,128	199,128	199,135	199128
39	BN, D	74,480	74,472	74,480	74,480	74,481	74,480	74,488	74480
40	D, C	24,497	24,498	24,497	24,497	24,496	24,496	24,494	24497
41	C, C	8,370	8,370	8,370	8,370	8,369	8,369	8,369	8370
42	C, C	7,637	7,637	7,637	7,637	7,637	7,637	7,637	7637
<b>Average</b>		<b>119,331</b>	<b>119,327</b>	<b>119,331</b>	<b>119,330</b>	<b>119,331</b>	<b>119,331</b>	<b>119,335</b>	<b>119330</b>
<b>Maximum</b>		<b>387,321</b>	<b>387,303</b>	<b>387,321</b>	<b>387,319</b>	<b>387,322</b>	<b>387,322</b>	<b>387,344</b>	<b>387319</b>
<b>Minimum</b>		<b>7,637</b>	<b>7,637</b>	<b>7,637</b>	<b>7,637</b>	<b>7,637</b>	<b>7,637</b>	<b>7,637</b>	<b>7637</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

**I-1.2.2 Changes in Groundwater-Surface Water Interaction Flow, Alternative 1 Compared to No Action Alternative**

Table I.1-190 through Table I.1-210 provide the annual simulated groundwater-surface water interaction flow through the model simulation period for each of the 21 model subregions for Alternative 1 compared to the No Action Alternative.

Table I.1-190. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 1 (SR1) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	1,754	-0.6%
2	W, W	1,178	-0.4%
3	C, C	1,050	-0.4%
4	C, C	-2,771	1.1%
5	AN, W	1,831	-0.8%
6	BN, AN	4,750	-1.8%
7	AN, W	-2,754	1.1%
8	D, D	-160	0.1%
9	W, W	1,511	-0.6%
10	W, W	-1,044	0.4%
11	W, AN	-3,313	1.0%
12	D, D	232	-0.1%
13	W, W	1,563	-0.5%
14	D, D	-1,032	0.4%
15	C, C	2,130	-0.8%
16	D, C	-2,303	0.9%
17	C, C	732	-0.3%
18	C, C	-937	0.5%
19	C, C	1,191	-0.6%
20	AN, W	-1,939	1.0%
21	C, C	-888	0.4%
22	W, W	403	-0.2%
23	W, W	-2,390	0.9%
24	W, W	1,195	-0.4%
25	W, W	-1,155	0.4%
26	W, AN	-1,984	0.6%
27	AN, AN	-575	0.2%
28	D, D	2,225	-0.8%
29	D, D	-1,935	0.7%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
30	AN, BN	-283	0.1%
31	BN, D	-1,527	0.5%
32	AN, W	3,251	-1.2%
33	W, W	1,622	-0.6%
34	D, C	-4,235	1.4%
35	C, C	3,112	-1.1%
36	D, BN	-1,193	0.4%
37	BN, AN	-652	0.3%
38	W, W	24	0.0%
39	BN, D	-2,105	0.8%
40	D, C	3,914	-1.5%
41	C, C	-2,940	1.2%
42	C, C	-6,602	3.1%
<b>Average</b>		<b>-263</b>	<b>0.1%</b>
<b>Maximum</b>		<b>4,750</b>	<b>3.1%</b>
<b>Minimum</b>		<b>-6,602</b>	<b>-1.8%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-191. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 2 (SR2) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	1,579	1.7%
2	W, W	1,796	3.9%
3	C, C	2,895	22.2%
4	C, C	-2,055	16.8%
5	AN, W	6,633	1.8%
6	BN, AN	7,430	5.4%
7	AN, W	-8,900	-4.9%
8	D, D	-4,346	-3.5%
9	W, W	1,570	1.1%
10	W, W	-2,050	-13.0%
11	W, AN	-5,971	19.3%
12	D, D	-308	-1.0%
13	W, W	3,447	5.3%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
14	D, D	-2,403	-3.6%
15	C, C	305	0.2%
16	D, C	-8,241	-4.1%
17	C, C	-3,665	-3.2%
18	C, C	-5,332	-3.2%
19	C, C	1,100	0.4%
20	AN, W	-7,783	-2.3%
21	C, C	-3,576	-4.0%
22	W, W	-1,842	-0.7%
23	W, W	-5,277	-3.5%
24	W, W	2,928	3.7%
25	W, W	-2,722	-3.3%
26	W, AN	-4,373	-136.1%
27	AN, AN	-1,575	-3.3%
28	D, D	2,710	8.0%
29	D, D	-5,372	-4.7%
30	AN, BN	-2,215	-1.4%
31	BN, D	-3,793	-5.0%
32	AN, W	3,915	5.1%
33	W, W	1,330	3.6%
34	D, C	-7,495	-32.6%
35	C, C	5,452	6.2%
36	D, BN	-3,524	-2.7%
37	BN, AN	-5,208	-2.8%
38	W, W	-314	-0.2%
39	BN, D	-3,602	-5.8%
40	D, C	5,645	4.4%
41	C, C	-6,012	-5.4%
42	C, C	-3,504	-1.6%
<b>Average</b>		<b>-1,493</b>	<b>-3.4%</b>
<b>Maximum</b>		<b>7,430</b>	<b>22.2%</b>
<b>Minimum</b>		<b>-8,900</b>	<b>-136.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-192. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 3 (SR3) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	125	-0.1%
2	W, W	193	-0.2%
3	C, C	-157	0.2%
4	C, C	-32	0.0%
5	AN, W	982	-2.0%
6	BN, AN	493	-0.7%
7	AN, W	-2,321	3.2%
8	D, D	-1,162	1.5%
9	W, W	-1,235	1.4%
10	W, W	-863	0.8%
11	W, AN	-803	0.7%
12	D, D	-556	0.6%
13	W, W	-235	0.3%
14	D, D	-821	1.0%
15	C, C	-1,805	2.3%
16	D, C	-3,317	4.7%
17	C, C	-4,304	6.3%
18	C, C	-3,968	8.0%
19	C, C	-2,525	6.4%
20	AN, W	-2,001	4.5%
21	C, C	-1,256	1.9%
22	W, W	-1,565	2.7%
23	W, W	-1,401	1.8%
24	W, W	-814	0.9%
25	W, W	-547	0.6%
26	W, AN	-886	0.9%
27	AN, AN	-828	0.9%
28	D, D	-1,028	1.2%
29	D, D	-2,177	2.6%
30	AN, BN	-1,394	1.6%
31	BN, D	-1,052	1.1%
32	AN, W	-1,434	1.5%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
33	W, W	-1,674	1.7%
34	D, C	-1,438	1.5%
35	C, C	-690	0.8%
36	D, BN	-1,668	2.2%
37	BN, AN	-2,138	2.9%
38	W, W	-1,744	2.0%
39	BN, D	-1,417	1.6%
40	D, C	-1,370	1.6%
41	C, C	-2,072	2.9%
42	C, C	-2,024	4.2%
<b>Average</b>		<b>-1,308</b>	<b>1.9%</b>
<b>Maximum</b>		<b>982</b>	<b>8.0%</b>
<b>Minimum</b>		<b>-4,304</b>	<b>-2.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-193. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 4 (SR4) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	1,233	-0.3%
2	W, W	395	-0.1%
3	C, C	4,377	-1.2%
4	C, C	-5,380	1.9%
5	AN, W	559	-0.2%
6	BN, AN	15,581	-4.0%
7	AN, W	-11,931	2.9%
8	D, D	-9,519	2.8%
9	W, W	6,685	-1.5%
10	W, W	-94	0.0%
11	W, AN	-11,808	2.6%
12	D, D	-569	0.1%
13	W, W	7,784	-1.8%
14	D, D	-7,575	2.2%
15	C, C	-1,130	0.3%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
16	D, C	-10,896	3.3%
17	C, C	-3,126	0.8%
18	C, C	-6,927	2.2%
19	C, C	8,446	-2.9%
20	AN, W	-11,598	3.3%
21	C, C	-6,686	2.0%
22	W, W	-1,061	0.3%
23	W, W	-9,808	2.7%
24	W, W	4,362	-1.1%
25	W, W	-8,333	2.1%
26	W, AN	-10,954	2.6%
27	AN, AN	-2,398	0.6%
28	D, D	3,820	-1.0%
29	D, D	-6,014	1.5%
30	AN, BN	-3,160	0.8%
31	BN, D	-9,828	2.6%
32	AN, W	8,033	-1.8%
33	W, W	85	0.0%
34	D, C	-14,399	3.8%
35	C, C	7,397	-1.9%
36	D, BN	-5,175	1.4%
37	BN, AN	-6,048	1.6%
38	W, W	1,684	-0.4%
39	BN, D	-8,310	2.2%
40	D, C	7,567	-2.0%
41	C, C	-8,718	2.5%
42	C, C	-7,478	2.5%
<b>Average</b>		<b>-2,641</b>	<b>0.7%</b>
<b>Maximum</b>		<b>15,581</b>	<b>3.8%</b>
<b>Minimum</b>		<b>-14,399</b>	<b>-4.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-194. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 5 (SR5) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	-5,108	1.2%
2	W, W	1,116	-0.3%
3	C, C	1,820	-0.5%
4	C, C	-6,960	2.9%
5	AN, W	7,526	-4.7%
6	BN, AN	1,236	-0.4%
7	AN, W	-882	0.2%
8	D, D	-5,722	1.6%
9	W, W	983	-0.2%
10	W, W	8,670	-1.5%
11	W, AN	2,133	-0.5%
12	D, D	-9,385	2.2%
13	W, W	4,709	-1.1%
14	D, D	5,528	-1.5%
15	C, C	112	0.0%
16	D, C	-10,267	3.7%
17	C, C	-16,885	5.1%
18	C, C	-2,562	1.0%
19	C, C	-5,597	2.5%
20	AN, W	10,933	-4.1%
21	C, C	503	-0.1%
22	W, W	-5,900	1.8%
23	W, W	3,499	-0.9%
24	W, W	-5,369	1.2%
25	W, W	9,348	-2.0%
26	W, AN	171	0.0%
27	AN, AN	2,393	-0.6%
28	D, D	-6,541	1.6%
29	D, D	7,088	-1.9%
30	AN, BN	942	-0.3%
31	BN, D	4,406	-1.1%
32	AN, W	5,088	-1.2%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
33	W, W	-10,037	2.1%
34	D, C	18,730	-4.4%
35	C, C	-3,721	0.9%
36	D, BN	4,098	-1.3%
37	BN, AN	3,642	-1.2%
38	W, W	-2,399	0.6%
39	BN, D	-3,190	0.9%
40	D, C	2,312	-0.6%
41	C, C	4,000	-1.4%
42	C, C	-6,926	3.3%
<b>Average</b>		<b>84</b>	<b>0.0%</b>
<b>Maximum</b>		<b>18,730</b>	<b>5.1%</b>
<b>Minimum</b>		<b>-16,885</b>	<b>-4.7%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-195. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 6 (SR6) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	-518	-0.9%
2	W, W	250	0.3%
3	C, C	747	0.6%
4	C, C	-2,116	-1.5%
5	AN, W	210	0.1%
6	BN, AN	983	0.6%
7	AN, W	-1,039	-1.0%
8	D, D	-1,106	-0.8%
9	W, W	1,107	1.8%
10	W, W	947	-4.4%
11	W, AN	-2,214	-7.8%
12	D, D	-1,350	-1.9%
13	W, W	956	2.1%
14	D, D	1,609	1.5%
15	C, C	713	0.6%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
16	D, C	891	0.6%
17	C, C	264	0.2%
18	C, C	-1,907	-1.1%
19	C, C	-321	-0.2%
20	AN, W	-1,930	-0.8%
21	C, C	58	0.0%
22	W, W	-1,415	-0.7%
23	W, W	-600	-0.4%
24	W, W	480	0.5%
25	W, W	1,384	2.4%
26	W, AN	-1,201	-2.1%
27	AN, AN	-856	-1.0%
28	D, D	77	0.1%
29	D, D	-540	-0.5%
30	AN, BN	1,383	1.4%
31	BN, D	-119	-0.1%
32	AN, W	2,371	3.5%
33	W, W	-1,612	-3.9%
34	D, C	137	0.1%
35	C, C	-390	-0.4%
36	D, BN	-1,348	-1.1%
37	BN, AN	162	0.1%
38	W, W	-1,508	-1.9%
39	BN, D	-1,353	-1.2%
40	D, C	800	0.5%
41	C, C	-531	-0.4%
42	C, C	-1,771	-0.8%
<b>Average</b>		<b>-243</b>	<b>-0.4%</b>
<b>Maximum</b>		<b>2,371</b>	<b>3.5%</b>
<b>Minimum</b>		<b>-2,214</b>	<b>-7.8%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-196. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 7 (SR7) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	-4,836	33.4%
2	W, W	3,919	-16.1%
3	C, C	60	-0.3%
4	C, C	2,416	7.8%
5	AN, W	-3,244	-7.2%
6	BN, AN	961	39.0%
7	AN, W	4,846	-61.1%
8	D, D	-3,348	-46.9%
9	W, W	577	13.6%
10	W, W	2,341	-6.0%
11	W, AN	-277	0.8%
12	D, D	-1,590	5.0%
13	W, W	-325	0.9%
14	D, D	2,125	-17.6%
15	C, C	-1,558	148.3%
16	D, C	3,239	17.8%
17	C, C	-1,800	88.0%
18	C, C	165	0.7%
19	C, C	1,251	4.7%
20	AN, W	-1,447	-5.3%
21	C, C	1,906	26.3%
22	W, W	-1,943	-8.0%
23	W, W	-690	-4.0%
24	W, W	70	-0.9%
25	W, W	162	-1.8%
26	W, AN	-1,186	8.2%
27	AN, AN	1,405	-13.2%
28	D, D	-804	4.9%
29	D, D	341	-586.4%
30	AN, BN	-2,209	-15.1%
31	BN, D	3,248	70.2%
32	AN, W	1,581	-78.4%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
33	W, W	-2,605	56.0%
34	D, C	3,131	-118.6%
35	C, C	-2,132	-80.6%
36	D, BN	-1,020	-4.2%
37	BN, AN	-466	-2.5%
38	W, W	107	1.2%
39	BN, D	-1,208	-12.3%
40	D, C	-1,425	-32.4%
41	C, C	1,260	4.3%
42	C, C	4,423	10.6%
<b>Average</b>		<b>129</b>	<b>-13.7%</b>
<b>Maximum</b>		<b>4,846</b>	<b>148.3%</b>
<b>Minimum</b>		<b>-4,836</b>	<b>-586.4%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-197. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 8 (SR8) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	-2,307	-0.9%
2	W, W	2,263	0.9%
3	C, C	-444	-0.2%
4	C, C	2,412	1.2%
5	AN, W	-3,763	-1.2%
6	BN, AN	329	0.1%
7	AN, W	2,318	0.7%
8	D, D	-934	-0.4%
9	W, W	275	0.1%
10	W, W	102	0.0%
11	W, AN	-522	-0.3%
12	D, D	-540	-0.3%
13	W, W	-375	-0.2%
14	D, D	1,225	0.7%
15	C, C	-1,353	-0.7%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
16	D, C	1,926	0.8%
17	C, C	-907	-0.4%
18	C, C	-338	-0.1%
19	C, C	-76	0.0%
20	AN, W	-751	-0.2%
21	C, C	1,223	0.5%
22	W, W	-740	-0.2%
23	W, W	-1,324	-0.4%
24	W, W	460	0.1%
25	W, W	-720	-0.2%
26	W, AN	-1,092	-0.4%
27	AN, AN	719	0.3%
28	D, D	-182	-0.1%
29	D, D	-249	-0.1%
30	AN, BN	-1,580	-0.7%
31	BN, D	1,788	0.8%
32	AN, W	72	0.0%
33	W, W	154	0.0%
34	D, C	980	0.4%
35	C, C	-528	-0.2%
36	D, BN	-777	-0.3%
37	BN, AN	-187	-0.1%
38	W, W	215	0.1%
39	BN, D	-358	-0.2%
40	D, C	-1,496	-0.6%
41	C, C	995	0.4%
42	C, C	2,943	1.1%
<b>Average</b>		<b>-27</b>	<b>0.0%</b>
<b>Maximum</b>		<b>2,943</b>	<b>1.2%</b>
<b>Minimum</b>		<b>-3,763</b>	<b>-1.2%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-198. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 9 (SR9) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	-10,506	3.3%
2	W, W	4,691	-1.2%
3	C, C	3,422	-0.7%
4	C, C	-1,755	0.5%
5	AN, W	-13,607	7.9%
6	BN, AN	-2,802	0.8%
7	AN, W	3,940	-1.4%
8	D, D	-10,504	2.9%
9	W, W	1,140	-0.4%
10	W, W	1,989	-0.5%
11	W, AN	-6,505	1.4%
12	D, D	-7,295	1.5%
13	W, W	-1,074	0.3%
14	D, D	2,691	-0.6%
15	C, C	-9,041	2.3%
16	D, C	8,496	-2.7%
17	C, C	2,036	-0.5%
18	C, C	1,909	-0.6%
19	C, C	4,021	-1.3%
20	AN, W	-25,797	12.5%
21	C, C	1,187	-0.3%
22	W, W	-7,197	3.6%
23	W, W	-9,121	3.1%
24	W, W	-6,289	1.7%
25	W, W	-2,918	0.9%
26	W, AN	-6,150	1.4%
27	AN, AN	2,117	-0.5%
28	D, D	-3,291	0.7%
29	D, D	2,105	-0.5%
30	AN, BN	-9,161	2.7%
31	BN, D	252	-0.1%
32	AN, W	4,702	-1.2%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
33	W, W	-9,758	2.8%
34	D, C	3,071	-0.7%
35	C, C	-3,959	0.9%
36	D, BN	-3,790	1.0%
37	BN, AN	-1,546	0.5%
38	W, W	-3,472	1.2%
39	BN, D	-5,350	1.3%
40	D, C	-3,585	0.9%
41	C, C	6,271	-1.5%
42	C, C	8,329	-2.5%
<b>Average</b>		<b>-2,431</b>	<b>0.9%</b>
<b>Maximum</b>		<b>8,496</b>	<b>12.5%</b>
<b>Minimum</b>		<b>-25,797</b>	<b>-2.7%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-199. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 10 (SR10) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	-11,878	13.7%
2	W, W	-10,599	11.8%
3	C, C	-10,495	11.6%
4	C, C	-33,132	147.7%
5	AN, W	-24,193	-143.7%
6	BN, AN	-11,308	16.7%
7	AN, W	-13,959	32.2%
8	D, D	-8,192	9.8%
9	W, W	-14,941	21.2%
10	W, W	-12,506	14.9%
11	W, AN	-10,166	8.6%
12	D, D	-8,306	6.9%
13	W, W	-10,094	12.3%
14	D, D	-7,053	6.2%
15	C, C	-6,951	6.8%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
16	D, C	-7,381	9.6%
17	C, C	-7,380	12.3%
18	C, C	-9,973	-181.3%
19	C, C	-9,637	-81.0%
20	AN, W	-9,873	-50.6%
21	C, C	-9,300	28.8%
22	W, W	-12,404	-207.5%
23	W, W	-10,234	18.5%
24	W, W	-8,265	11.5%
25	W, W	-11,491	15.2%
26	W, AN	-8,791	6.9%
27	AN, AN	-8,364	8.1%
28	D, D	-8,418	7.7%
29	D, D	-9,795	9.9%
30	AN, BN	-10,162	10.9%
31	BN, D	-11,726	11.9%
32	AN, W	-19,685	19.1%
33	W, W	-14,239	12.2%
34	D, C	-9,791	8.2%
35	C, C	-10,510	12.0%
36	D, BN	-9,648	11.5%
37	BN, AN	-10,620	14.7%
38	W, W	-11,617	10.3%
39	BN, D	-9,234	6.6%
40	D, C	-9,453	8.2%
41	C, C	-23,664	49.8%
42	C, C	-19,398	231.1%
<b>Average</b>		<b>-11,781</b>	<b>4.6%</b>
<b>Maximum</b>		<b>-6,951</b>	<b>231.1%</b>
<b>Minimum</b>		<b>-33,132</b>	<b>-207.5%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-200. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 11 (SR11) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	-6,582	15.9%
2	W, W	-2,982	6.4%
3	C, C	-98	0.5%
4	C, C	-5,834	-6.1%
5	AN, W	-5,538	-7.7%
6	BN, AN	-2,280	-7.3%
7	AN, W	-1,042	-13.9%
8	D, D	936	-4.7%
9	W, W	-3,923	20.1%
10	W, W	-5,322	16.8%
11	W, AN	3,776	-3.9%
12	D, D	-2,118	3.0%
13	W, W	-4,423	8.4%
14	D, D	-41	0.1%
15	C, C	-3,904	-18.1%
16	D, C	-1,953	-3.4%
17	C, C	-4,300	-6.5%
18	C, C	-2,780	-3.4%
19	C, C	-2,283	-2.9%
20	AN, W	-498	-1.2%
21	C, C	-6,093	-13.2%
22	W, W	-12,155	-31.2%
23	W, W	-8,891	85.9%
24	W, W	-6,343	30.2%
25	W, W	5,556	-12.4%
26	W, AN	1,955	-1.9%
27	AN, AN	-1,646	3.3%
28	D, D	-1,149	2.4%
29	D, D	-2,452	6.9%
30	AN, BN	-1,739	5.1%
31	BN, D	-3,612	9.9%
32	AN, W	-6,148	12.2%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
33	W, W	414	-0.6%
34	D, C	-472	0.7%
35	C, C	7	-0.2%
36	D, BN	-2,982	-16.4%
37	BN, AN	-4,776	64.8%
38	W, W	-6,336	-1,391.1%
39	BN, D	1,457	-1.7%
40	D, C	-1,978	14.7%
41	C, C	-3,282	-5.3%
42	C, C	-3,171	-3.5%
<b>Average</b>		<b>-2,739</b>	<b>-29.8%</b>
<b>Maximum</b>		<b>5,556</b>	<b>85.9%</b>
<b>Minimum</b>		<b>-12,155</b>	<b>-1,391.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-201. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 12 (SR12) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	-3,765	-4.3%
2	W, W	-3,611	-4.7%
3	C, C	-3,588	-3.5%
4	C, C	-4,248	-2.5%
5	AN, W	-3,614	-1.9%
6	BN, AN	-2,920	-1.7%
7	AN, W	-2,965	-2.2%
8	D, D	-2,765	-2.4%
9	W, W	-3,365	-3.5%
10	W, W	-3,262	-4.2%
11	W, AN	-3,079	-5.0%
12	D, D	-2,874	-3.9%
13	W, W	-3,074	-3.9%
14	D, D	-2,751	-2.9%
15	C, C	-3,566	-2.5%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
16	D, C	-1,635	-0.8%
17	C, C	-4,096	-1.9%
18	C, C	-2,718	-1.2%
19	C, C	-1,995	-0.9%
20	AN, W	-6,385	-3.2%
21	C, C	-6,268	-3.1%
22	W, W	-2,586	-1.5%
23	W, W	-3,404	-2.8%
24	W, W	-3,379	-2.9%
25	W, W	-3,439	-4.2%
26	W, AN	-3,307	-6.4%
27	AN, AN	-3,219	-3.9%
28	D, D	-3,356	-3.9%
29	D, D	-3,646	-3.7%
30	AN, BN	-3,552	-3.7%
31	BN, D	-4,861	-5.0%
32	AN, W	-5,326	-7.5%
33	W, W	-4,712	-8.2%
34	D, C	-4,202	-5.9%
35	C, C	-3,258	-2.5%
36	D, BN	-5,365	-3.6%
37	BN, AN	-3,980	-3.6%
38	W, W	-4,431	-4.4%
39	BN, D	-3,423	-5.8%
40	D, C	-3,288	-2.7%
41	C, C	-4,042	-2.1%
42	C, C	-2,996	-1.4%
<b>Average</b>		<b>-3,627</b>	<b>-3.5%</b>
<b>Maximum</b>		<b>-1,635</b>	<b>-0.8%</b>
<b>Minimum</b>		<b>-6,385</b>	<b>-8.2%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-202. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 13 (SR13) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	-6,661	-1.2%
2	W, W	-7,170	-1.2%
3	C, C	-7,118	-1.1%
4	C, C	-19,967	-3.2%
5	AN, W	-15,524	-1.8%
6	BN, AN	-10,101	-1.5%
7	AN, W	-9,050	-1.3%
8	D, D	-8,412	-1.3%
9	W, W	-8,557	-1.3%
10	W, W	-8,512	-1.0%
11	W, AN	-8,827	-1.5%
12	D, D	-8,917	-1.5%
13	W, W	-9,206	-1.4%
14	D, D	-9,243	-1.6%
15	C, C	-8,811	-1.5%
16	D, C	-8,820	-1.4%
17	C, C	-8,520	-1.4%
18	C, C	-9,143	-1.3%
19	C, C	-9,764	-1.3%
20	AN, W	-9,575	-1.3%
21	C, C	-9,164	-1.3%
22	W, W	-8,861	-1.1%
23	W, W	-9,601	-1.3%
24	W, W	-9,267	-1.1%
25	W, W	-9,551	-1.3%
26	W, AN	-9,566	-1.7%
27	AN, AN	-9,815	-1.5%
28	D, D	-9,972	-1.6%
29	D, D	-10,153	-1.7%
30	AN, BN	-10,793	-1.8%
31	BN, D	-10,389	-1.7%
32	AN, W	-10,741	-1.7%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
33	W, W	-11,998	-1.8%
34	D, C	-13,242	-2.2%
35	C, C	-11,432	-1.8%
36	D, BN	-11,207	-1.8%
37	BN, AN	-11,389	-1.9%
38	W, W	-11,589	-1.6%
39	BN, D	-11,690	-1.8%
40	D, C	-11,423	-1.8%
41	C, C	-19,033	-2.8%
42	C, C	-12,953	-1.9%
<b>Average</b>		<b>-10,374</b>	<b>-1.6%</b>
<b>Maximum</b>		<b>-6,661</b>	<b>-1.0%</b>
<b>Minimum</b>		<b>-19,967</b>	<b>-3.2%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-203. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 14 (SR14) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	161	0.3%
2	W, W	967	1.9%
3	C, C	737	1.6%
4	C, C	615	1.4%
5	AN, W	148	0.1%
6	BN, AN	376	0.7%
7	AN, W	39	0.0%
8	D, D	838	1.7%
9	W, W	92	0.1%
10	W, W	-34	0.0%
11	W, AN	-1,172	-2.0%
12	D, D	-2,524	-5.3%
13	W, W	-3,760	-4.6%
14	D, D	-4,752	-10.4%
15	C, C	-1,552	-3.6%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
16	D, C	16	0.0%
17	C, C	36	0.1%
18	C, C	247	0.5%
19	C, C	227	0.5%
20	AN, W	-117	-0.1%
21	C, C	165	0.4%
22	W, W	11	0.0%
23	W, W	-32	0.0%
24	W, W	5	0.0%
25	W, W	-25	0.0%
26	W, AN	-32	-0.1%
27	AN, AN	-52	-0.1%
28	D, D	-28	-0.1%
29	D, D	-8	0.0%
30	AN, BN	49	0.1%
31	BN, D	197	0.4%
32	AN, W	-84	-0.1%
33	W, W	108	0.2%
34	D, C	15	0.0%
35	C, C	102	0.2%
36	D, BN	556	1.2%
37	BN, AN	390	0.7%
38	W, W	3	0.0%
39	BN, D	41	0.1%
40	D, C	277	0.6%
41	C, C	768	1.8%
42	C, C	614	1.4%
<b>Average</b>		<b>-152</b>	<b>-0.2%</b>
<b>Maximum</b>		<b>967</b>	<b>1.9%</b>
<b>Minimum</b>		<b>-4,752</b>	<b>-10.4%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-204. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 15 (SR15) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	-29,101	-5.8%
2	W, W	-29,574	-7.5%
3	C, C	-26,941	-6.0%
4	C, C	-26,268	-5.8%
5	AN, W	-27,315	-2.7%
6	BN, AN	-26,994	-5.7%
7	AN, W	-35,903	-4.4%
8	D, D	-24,808	-6.2%
9	W, W	-35,575	-5.3%
10	W, W	-35,741	-6.5%
11	W, AN	-27,262	-7.0%
12	D, D	-24,092	-5.9%
13	W, W	-33,640	-5.9%
14	D, D	-30,020	-7.4%
15	C, C	-26,596	-7.4%
16	D, C	-26,522	-6.6%
17	C, C	-27,187	-6.3%
18	C, C	-26,836	-5.6%
19	C, C	-25,528	-5.4%
20	AN, W	-29,796	-6.0%
21	C, C	-26,804	-5.2%
22	W, W	-39,133	-4.1%
23	W, W	-38,270	-5.6%
24	W, W	-38,954	-6.4%
25	W, W	-34,954	-6.7%
26	W, AN	-31,858	-9.0%
27	AN, AN	-34,941	-8.2%
28	D, D	-35,314	-8.5%
29	D, D	-36,150	-9.6%
30	AN, BN	-34,605	-8.6%
31	BN, D	-39,070	-9.7%
32	AN, W	-45,987	-7.3%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
33	W, W	-56,387	-8.5%
34	D, C	-38,136	-9.0%
35	C, C	-37,396	-9.4%
36	D, BN	-34,644	-8.0%
37	BN, AN	-38,266	-5.0%
38	W, W	-55,810	-7.2%
39	BN, D	-33,076	-6.7%
40	D, C	-31,157	-7.6%
41	C, C	-27,219	-5.6%
42	C, C	-33,139	-6.9%
<b>Average</b>		<b>-33,261</b>	<b>-6.7%</b>
<b>Maximum</b>		<b>-24,092</b>	<b>-2.7%</b>
<b>Minimum</b>		<b>-56,387</b>	<b>-9.7%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-205. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 16 (SR16) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	-720	-2.1%
2	W, W	-780	-2.7%
3	C, C	-791	-1.6%
4	C, C	-663	-0.9%
5	AN, W	-844	-1.2%
6	BN, AN	-903	-2.2%
7	AN, W	-863	-2.3%
8	D, D	-1,061	-2.6%
9	W, W	-990	-2.7%
10	W, W	-1,152	-3.8%
11	W, AN	-1,256	-7.6%
12	D, D	-1,401	-5.2%
13	W, W	-1,687	-6.3%
14	D, D	-1,755	-6.5%
15	C, C	-1,881	-4.5%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
16	D, C	-1,930	-3.5%
17	C, C	-1,829	-2.9%
18	C, C	-1,779	-2.5%
19	C, C	-1,768	-2.4%
20	AN, W	-1,787	-3.1%
21	C, C	-1,794	-3.2%
22	W, W	-1,676	-3.4%
23	W, W	-1,703	-4.0%
24	W, W	-1,736	-5.0%
25	W, W	-1,815	-5.7%
26	W, AN	-1,945	-7.9%
27	AN, AN	-1,988	-7.2%
28	D, D	-2,105	-5.1%
29	D, D	-2,290	-4.4%
30	AN, BN	-2,487	-4.3%
31	BN, D	-2,405	-4.4%
32	AN, W	-2,326	-5.6%
33	W, W	-2,463	-8.7%
34	D, C	-2,602	-5.5%
35	C, C	-2,634	-4.4%
36	D, BN	-2,598	-4.2%
37	BN, AN	-2,620	-4.7%
38	W, W	-2,590	-7.8%
39	BN, D	-2,689	-5.7%
40	D, C	-2,546	-3.3%
41	C, C	-2,407	-2.5%
42	C, C	-775	-0.8%
<b>Average</b>		<b>-1,763</b>	<b>-4.1%</b>
<b>Maximum</b>		<b>-663</b>	<b>-0.8%</b>
<b>Minimum</b>		<b>-2,689</b>	<b>-8.7%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-206. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 17 (SR17) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	-992	-4.9%
2	W, W	-997	-2.1%
3	C, C	-858	-0.8%
4	C, C	-125	-0.1%
5	AN, W	-1,218	-1.2%
6	BN, AN	-1,242	-16.7%
7	AN, W	-1,266	3.7%
8	D, D	-1,126	-9.7%
9	W, W	-1,153	-4.5%
10	W, W	-1,614	3.3%
11	W, AN	-1,608	1.6%
12	D, D	-1,668	20.9%
13	W, W	-1,976	14.6%
14	D, D	-1,991	-30.9%
15	C, C	-882	-1.6%
16	D, C	-210	-0.3%
17	C, C	-67	-0.1%
18	C, C	-156	-0.2%
19	C, C	-39	-0.1%
20	AN, W	-1,715	-1.4%
21	C, C	-1,741	-1.3%
22	W, W	-1,991	-2.8%
23	W, W	-2,435	-7.0%
24	W, W	-2,253	14.9%
25	W, W	-2,212	97.1%
26	W, AN	-2,231	11.8%
27	AN, AN	-2,300	-13.3%
28	D, D	-2,170	-3.8%
29	D, D	-1,441	-2.1%
30	AN, BN	-1,739	-2.2%
31	BN, D	-1,369	-1.4%
32	AN, W	-2,995	-4.1%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
33	W, W	-3,833	-13.0%
34	D, C	-3,716	-5.8%
35	C, C	-2,155	-2.6%
36	D, BN	-2,013	-2.2%
37	BN, AN	-3,536	-2.6%
38	W, W	-5,123	-7.0%
39	BN, D	-3,766	-7.3%
40	D, C	-1,882	-1.6%
41	C, C	-1,613	-1.2%
42	C, C	-37	-0.1%
<b>Average</b>		<b>-1,749</b>	<b>0.3%</b>
<b>Maximum</b>		<b>-37</b>	<b>97.1%</b>
<b>Minimum</b>		<b>-5,123</b>	<b>-30.9%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-207. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 18 (SR18) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	-39,928	71.4%
2	W, W	-42,945	59.9%
3	C, C	-23,602	72.2%
4	C, C	-8,411	-20.4%
5	AN, W	-15,405	-11.9%
6	BN, AN	-52,583	25.5%
7	AN, W	-41,206	17.2%
8	D, D	-40,376	14.0%
9	W, W	-42,654	14.3%
10	W, W	-53,047	5.0%
11	W, AN	-47,304	4.0%
12	D, D	-48,337	6.9%
13	W, W	-50,349	6.5%
14	D, D	-47,967	6.9%
15	C, C	-42,381	11.1%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
16	D, C	-41,651	26.1%
17	C, C	-30,640	518.9%
18	C, C	-23,352	-43.2%
19	C, C	-10,803	-14.7%
20	AN, W	-12,651	-12.1%
21	C, C	-11,361	-132.0%
22	W, W	-40,457	-135.4%
23	W, W	-52,756	17.5%
24	W, W	-56,844	25.3%
25	W, W	-58,961	11.7%
26	W, AN	-56,636	7.1%
27	AN, AN	-53,081	9.5%
28	D, D	-52,751	12.0%
29	D, D	-55,281	26.3%
30	AN, BN	-58,191	78.3%
31	BN, D	-53,295	149.8%
32	AN, W	-58,788	84.9%
33	W, W	-71,253	38.3%
34	D, C	-59,862	37.8%
35	C, C	-43,609	-86.4%
36	D, BN	-17,417	-22.5%
37	BN, AN	-17,126	-20.4%
38	W, W	-89,157	38.1%
39	BN, D	-69,359	26.1%
40	D, C	-54,877	157.7%
41	C, C	-13,375	-21.5%
42	C, C	-7,904	-8.3%
<b>Average</b>		<b>-42,094</b>	<b>25.0%</b>
<b>Maximum</b>		<b>-7,904</b>	<b>518.9%</b>
<b>Minimum</b>		<b>-89,157</b>	<b>-135.4%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-208. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 19 (SR19) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	-1	0.0%
2	W, W	0	0.0%
3	C, C	0	0.0%
4	C, C	0	0.0%
5	AN, W	-1	0.0%
6	BN, AN	-1	0.0%
7	AN, W	-2	0.0%
8	D, D	-1	0.0%
9	W, W	-1	0.0%
10	W, W	-4	0.0%
11	W, AN	-3	0.0%
12	D, D	-1	-0.1%
13	W, W	-5	-0.1%
14	D, D	-2	0.1%
15	C, C	0	0.0%
16	D, C	0	0.0%
17	C, C	0	0.0%
18	C, C	0	0.0%
19	C, C	0	0.0%
20	AN, W	0	0.0%
21	C, C	0	0.0%
22	W, W	-6	0.1%
23	W, W	-5	0.8%
24	W, W	-5	0.1%
25	W, W	-9	0.0%
26	W, AN	-11	0.1%
27	AN, AN	-6	-2.6%
28	D, D	-2	-0.2%
29	D, D	0	0.0%
30	AN, BN	0	0.0%
31	BN, D	0	0.0%
32	AN, W	-7	-0.3%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
33	W, W	-8	0.1%
34	D, C	-3	0.0%
35	C, C	0	0.0%
36	D, BN	0	0.0%
37	BN, AN	0	0.0%
38	W, W	-7	0.3%
39	BN, D	-3	0.6%
40	D, C	0	0.0%
41	C, C	0	0.2%
42	C, C	0	0.0%
<b>Average</b>		<b>-2</b>	<b>0.0%</b>
<b>Maximum</b>		<b>0</b>	<b>0.8%</b>
<b>Minimum</b>		<b>-11</b>	<b>-2.6%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-209. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 20 (SR20) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	-1	0.0%
2	W, W	-1	0.0%
3	C, C	-1	0.0%
4	C, C	-1	0.0%
5	AN, W	-1	0.0%
6	BN, AN	-1	0.0%
7	AN, W	-1	0.0%
8	D, D	-1	0.0%
9	W, W	-1	0.0%
10	W, W	-2	0.0%
11	W, AN	-2	0.0%
12	D, D	-2	0.0%
13	W, W	-2	0.0%
14	D, D	-2	0.0%
15	C, C	-2	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
16	D, C	-2	0.0%
17	C, C	-2	0.0%
18	C, C	-2	0.0%
19	C, C	-2	0.0%
20	AN, W	-2	0.0%
21	C, C	-2	0.0%
22	W, W	-2	0.0%
23	W, W	-2	0.0%
24	W, W	-3	0.0%
25	W, W	-3	0.0%
26	W, AN	-3	0.0%
27	AN, AN	-3	0.0%
28	D, D	-3	0.0%
29	D, D	-3	0.0%
30	AN, BN	-4	0.0%
31	BN, D	-4	0.0%
32	AN, W	-4	0.0%
33	W, W	-4	0.0%
34	D, C	-4	0.0%
35	C, C	-4	0.0%
36	D, BN	-4	0.0%
37	BN, AN	-5	0.0%
38	W, W	-6	0.0%
39	BN, D	-5	0.0%
40	D, C	-5	0.0%
41	C, C	-6	0.0%
42	C, C	-6	0.0%
<b>Average</b>		<b>-3</b>	<b>0.0%</b>
<b>Maximum</b>		<b>-1</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-6</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-210. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 21 (SR21) for Alternative 1 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	0	0.0%
3	C, C	0	0.0%
4	C, C	0	0.0%
5	AN, W	0	0.0%
6	BN, AN	0	0.0%
7	AN, W	-2	0.0%
8	D, D	0	0.0%
9	W, W	0	0.0%
10	W, W	-18	0.0%
11	W, AN	-8	0.0%
12	D, D	0	0.0%
13	W, W	-7	0.0%
14	D, D	-1	0.0%
15	C, C	0	0.0%
16	D, C	1	0.0%
17	C, C	0	0.0%
18	C, C	1	0.0%
19	C, C	1	0.0%
20	AN, W	1	0.0%
21	C, C	1	0.0%
22	W, W	-1	0.0%
23	W, W	-6	0.0%
24	W, W	-7	0.0%
25	W, W	-24	0.0%
26	W, AN	-18	0.0%
27	AN, AN	-5	0.0%
28	D, D	-2	0.0%
29	D, D	0	0.0%
30	AN, BN	2	0.0%
31	BN, D	1	0.0%
32	AN, W	-5	0.0%
33	W, W	-25	0.0%
34	D, C	-7	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt1 minus NAA (TAF)	Alt1 minus NAA (% Difference)
35	C, C	-1	0.0%
36	D, BN	1	0.0%
37	BN, AN	1	0.0%
38	W, W	-4	0.0%
39	BN, D	-8	0.0%
40	D, C	1	0.0%
41	C, C	0	0.0%
42	C, C	0	0.0%
<b>Average</b>		<b>-3</b>	<b>0.0%</b>
<b>Maximum</b>		<b>2</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-25</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

### I-1.2.3 Changes in Groundwater-Surface Water Interaction Flow, Alternative 2 with TUCP Without VA Compared to No Action Alternative

Table I.1-211 through Table I.1-231 provide the annual simulated groundwater-surface water interaction flow through the model simulation period for each of the 21 model subregions for Alternative 2 with TUCP without VA compared to the No Action Alternative.

Table I.1-211. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 1 (SR1) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	1,646	-0.5%
2	W, W	-248	0.1%
3	C, C	-930	0.3%
4	C, C	13,314	-5.1%
5	AN, W	10,263	-4.5%
6	BN, AN	3,651	-1.4%
7	AN, W	-803	0.3%
8	D, D	884	-0.3%
9	W, W	1,008	-0.4%
10	W, W	-1,218	0.4%
11	W, AN	-910	0.3%
12	D, D	44	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
13	W, W	401	-0.1%
14	D, D	1,280	-0.5%
15	C, C	-465	0.2%
16	D, C	1,867	-0.8%
17	C, C	1,352	-0.6%
18	C, C	10,991	-5.4%
19	C, C	18,297	-9.5%
20	AN, W	1,627	-0.8%
21	C, C	1,130	-0.5%
22	W, W	2,569	-1.2%
23	W, W	273	-0.1%
24	W, W	2,842	-1.0%
25	W, W	480	-0.2%
26	W, AN	-1,342	0.4%
27	AN, AN	2,663	-0.9%
28	D, D	1,064	-0.4%
29	D, D	474	-0.2%
30	AN, BN	-130	0.0%
31	BN, D	-15	0.0%
32	AN, W	747	-0.3%
33	W, W	1,592	-0.5%
34	D, C	-2,590	0.8%
35	C, C	2,080	-0.7%
36	D, BN	361	-0.1%
37	BN, AN	584	-0.2%
38	W, W	859	-0.3%
39	BN, D	-180	0.1%
40	D, C	1,359	-0.5%
41	C, C	8,452	-3.6%
42	C, C	13,940	-6.6%
<b>Average</b>		<b>2,363</b>	<b>-1.1%</b>
<b>Maximum</b>		<b>18,297</b>	<b>0.8%</b>
<b>Minimum</b>		<b>-2,590</b>	<b>-9.5%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-212. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 2 (SR2) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	3,218	3.4%
2	W, W	-504	-1.1%
3	C, C	-503	-3.9%
4	C, C	1,988	-16.3%
5	AN, W	3,845	1.0%
6	BN, AN	7,136	5.2%
7	AN, W	150	0.1%
8	D, D	2,526	2.1%
9	W, W	1,473	1.0%
10	W, W	-1,298	-8.2%
11	W, AN	-1,233	4.0%
12	D, D	253	0.8%
13	W, W	1,891	2.9%
14	D, D	2,634	3.9%
15	C, C	2,987	2.1%
16	D, C	9,904	5.0%
17	C, C	4,448	3.9%
18	C, C	181	0.1%
19	C, C	12,791	5.1%
20	AN, W	1,768	0.5%
21	C, C	3,092	3.5%
22	W, W	12,244	4.5%
23	W, W	4,774	3.1%
24	W, W	6,542	8.2%
25	W, W	1,586	1.9%
26	W, AN	-2,805	-87.3%
27	AN, AN	5,050	10.7%
28	D, D	2,189	6.4%
29	D, D	2,105	1.9%
30	AN, BN	248	0.2%
31	BN, D	-200	-0.3%
32	AN, W	1,164	1.5%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
33	W, W	2,606	7.0%
34	D, C	-3,874	-16.8%
35	C, C	4,373	5.0%
36	D, BN	3,385	2.6%
37	BN, AN	2,076	1.1%
38	W, W	3,935	2.4%
39	BN, D	160	0.3%
40	D, C	2,392	1.9%
41	C, C	-3,177	-2.9%
42	C, C	10,288	4.7%
<b>Average</b>		<b>2,662</b>	<b>-0.7%</b>
<b>Maximum</b>		<b>12,791</b>	<b>10.7%</b>
<b>Minimum</b>		<b>-3,874</b>	<b>-87.3%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-213. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 3 (SR3) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	738	-0.8%
2	W, W	738	-0.8%
3	C, C	1,257	-1.5%
4	C, C	12,960	-19.7%
5	AN, W	14,075	-28.8%
6	BN, AN	5,158	-7.4%
7	AN, W	3,407	-4.7%
8	D, D	2,767	-3.6%
9	W, W	1,990	-2.3%
10	W, W	1,951	-1.9%
11	W, AN	1,766	-1.6%
12	D, D	1,660	-1.7%
13	W, W	1,825	-2.1%
14	D, D	2,231	-2.6%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
15	C, C	3,988	-5.1%
16	D, C	5,664	-8.1%
17	C, C	4,172	-6.1%
18	C, C	13,031	-26.2%
19	C, C	15,937	-40.1%
20	AN, W	5,611	-12.6%
21	C, C	5,519	-8.3%
22	W, W	7,821	-13.5%
23	W, W	5,646	-7.3%
24	W, W	4,651	-5.3%
25	W, W	3,948	-4.5%
26	W, AN	3,556	-3.4%
27	AN, AN	3,475	-3.8%
28	D, D	3,160	-3.6%
29	D, D	3,145	-3.7%
30	AN, BN	2,469	-2.8%
31	BN, D	2,116	-2.3%
32	AN, W	1,666	-1.8%
33	W, W	1,552	-1.5%
34	D, C	1,475	-1.5%
35	C, C	2,474	-2.8%
36	D, BN	3,738	-4.9%
37	BN, AN	2,523	-3.4%
38	W, W	2,250	-2.5%
39	BN, D	2,028	-2.3%
40	D, C	2,463	-2.9%
41	C, C	17,052	-24.2%
42	C, C	16,666	-34.4%
<b>Average</b>		<b>4,770</b>	<b>-7.6%</b>
<b>Maximum</b>		<b>17,052</b>	<b>-0.8%</b>
<b>Minimum</b>		<b>738</b>	<b>-40.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-214. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 4 (SR4) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	6,612	-1.6%
2	W, W	-866	0.2%
3	C, C	-1,602	0.4%
4	C, C	40,126	-13.8%
5	AN, W	34,829	-11.2%
6	BN, AN	19,554	-5.1%
7	AN, W	1,139	-0.3%
8	D, D	3,363	-1.0%
9	W, W	8,876	-2.0%
10	W, W	4,325	-0.9%
11	W, AN	401	-0.1%
12	D, D	3,129	-0.8%
13	W, W	4,770	-1.1%
14	D, D	5,576	-1.6%
15	C, C	3,343	-0.9%
16	D, C	11,536	-3.5%
17	C, C	2,350	-0.6%
18	C, C	35,031	-11.0%
19	C, C	57,728	-20.1%
20	AN, W	9,715	-2.7%
21	C, C	10,845	-3.2%
22	W, W	16,309	-4.3%
23	W, W	6,022	-1.6%
24	W, W	13,019	-3.3%
25	W, W	6,174	-1.6%
26	W, AN	-2,356	0.5%
27	AN, AN	15,152	-3.8%
28	D, D	7,348	-1.8%
29	D, D	4,547	-1.2%
30	AN, BN	3,237	-0.8%
31	BN, D	371	-0.1%
32	AN, W	6,668	-1.5%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
33	W, W	6,579	-1.5%
34	D, C	-5,259	1.4%
35	C, C	9,039	-2.3%
36	D, BN	4,060	-1.1%
37	BN, AN	4,932	-1.3%
38	W, W	6,556	-1.6%
39	BN, D	136	0.0%
40	D, C	6,238	-1.7%
41	C, C	30,406	-8.9%
42	C, C	55,304	-18.2%
<b>Average</b>		<b>10,840</b>	<b>-3.2%</b>
<b>Maximum</b>		<b>57,728</b>	<b>1.4%</b>
<b>Minimum</b>		<b>-5,259</b>	<b>-20.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-215. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 5 (SR5) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	-865	0.2%
2	W, W	-716	0.2%
3	C, C	817	-0.2%
4	C, C	-6,567	2.7%
5	AN, W	13,783	-8.6%
6	BN, AN	-3,462	1.1%
7	AN, W	4,676	-1.2%
8	D, D	-4,869	1.4%
9	W, W	4,161	-1.0%
10	W, W	3,266	-0.6%
11	W, AN	-1,621	0.4%
12	D, D	-2,783	0.7%
13	W, W	7,395	-1.8%
14	D, D	-2,146	0.6%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
15	C, C	3,398	-1.1%
16	D, C	-176	0.1%
17	C, C	839	-0.3%
18	C, C	2,672	-1.1%
19	C, C	3,701	-1.6%
20	AN, W	9,368	-3.5%
21	C, C	525	-0.2%
22	W, W	5,686	-1.7%
23	W, W	2,775	-0.7%
24	W, W	-374	0.1%
25	W, W	75	0.0%
26	W, AN	464	-0.1%
27	AN, AN	-322	0.1%
28	D, D	-4,028	1.0%
29	D, D	7,534	-2.0%
30	AN, BN	-306	0.1%
31	BN, D	720	-0.2%
32	AN, W	2,680	-0.6%
33	W, W	-2,078	0.4%
34	D, C	8,628	-2.0%
35	C, C	489	-0.1%
36	D, BN	4,886	-1.6%
37	BN, AN	2,439	-0.8%
38	W, W	-212	0.1%
39	BN, D	-721	0.2%
40	D, C	1,472	-0.4%
41	C, C	6,512	-2.3%
42	C, C	16,038	-7.5%
<b>Average</b>		<b>1,994</b>	<b>-0.8%</b>
<b>Maximum</b>		<b>16,038</b>	<b>2.7%</b>
<b>Minimum</b>		<b>-6,567</b>	<b>-8.6%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-216. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 6 (SR6) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	643	1.1%
2	W, W	-98	-0.1%
3	C, C	-268	-0.2%
4	C, C	-2,942	-2.1%
5	AN, W	-644	-0.3%
6	BN, AN	-512	-0.3%
7	AN, W	1,220	1.1%
8	D, D	-1,551	-1.1%
9	W, W	2,411	4.0%
10	W, W	448	-2.1%
11	W, AN	-646	-2.3%
12	D, D	527	0.8%
13	W, W	1,843	4.0%
14	D, D	-42	0.0%
15	C, C	-137	-0.1%
16	D, C	1,366	0.9%
17	C, C	-1,828	-1.5%
18	C, C	-6,315	-3.6%
19	C, C	-500	-0.2%
20	AN, W	-2,055	-0.8%
21	C, C	-548	-0.3%
22	W, W	1,901	1.0%
23	W, W	-127	-0.1%
24	W, W	800	0.8%
25	W, W	103	0.2%
26	W, AN	-736	-1.3%
27	AN, AN	1,014	1.2%
28	D, D	-79	-0.1%
29	D, D	755	0.7%
30	AN, BN	276	0.3%
31	BN, D	59	0.1%
32	AN, W	1,182	1.8%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
33	W, W	580	1.4%
34	D, C	-87	-0.1%
35	C, C	307	0.3%
36	D, BN	928	0.8%
37	BN, AN	1,229	0.9%
38	W, W	180	0.2%
39	BN, D	-738	-0.6%
40	D, C	389	0.3%
41	C, C	-5,142	-3.7%
42	C, C	930	0.4%
<b>Average</b>		<b>-141</b>	<b>0.0%</b>
<b>Maximum</b>		<b>2,411</b>	<b>4.0%</b>
<b>Minimum</b>		<b>-6,315</b>	<b>-3.7%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-217. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 7 (SR7) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	-1,162	8.0%
2	W, W	-22	0.1%
3	C, C	375	-2.1%
4	C, C	-6,341	-20.4%
5	AN, W	699	1.5%
6	BN, AN	-1,624	-66.0%
7	AN, W	-151	1.9%
8	D, D	-622	-8.7%
9	W, W	1,270	29.9%
10	W, W	430	-1.1%
11	W, AN	-1,226	3.7%
12	D, D	-585	1.8%
13	W, W	2,381	-6.7%
14	D, D	-1,246	10.3%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
15	C, C	-31	2.9%
16	D, C	1,165	6.4%
17	C, C	-1,163	56.9%
18	C, C	-6,628	-29.3%
19	C, C	2,056	7.8%
20	AN, W	-318	-1.2%
21	C, C	-987	-13.6%
22	W, W	-617	-2.6%
23	W, W	-1,019	-5.9%
24	W, W	253	-3.1%
25	W, W	193	-2.2%
26	W, AN	95	-0.7%
27	AN, AN	150	-1.4%
28	D, D	-480	2.9%
29	D, D	748	-1,285.2%
30	AN, BN	-254	-1.7%
31	BN, D	471	10.2%
32	AN, W	98	-4.8%
33	W, W	-367	7.9%
34	D, C	1,623	-61.5%
35	C, C	-1,832	-69.3%
36	D, BN	773	3.2%
37	BN, AN	430	2.3%
38	W, W	173	2.0%
39	BN, D	-79	-0.8%
40	D, C	-4	-0.1%
41	C, C	-3,191	-10.8%
42	C, C	-2,035	-4.9%
<b>Average</b>		<b>-443</b>	<b>-34.4%</b>
<b>Maximum</b>		<b>2,381</b>	<b>56.9%</b>
<b>Minimum</b>		<b>-6,628</b>	<b>-1,285.2%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-218. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 8 (SR8) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	-684	-0.3%
2	W, W	-89	0.0%
3	C, C	101	0.0%
4	C, C	-2,379	-1.2%
5	AN, W	1,528	0.5%
6	BN, AN	-195	-0.1%
7	AN, W	-915	-0.3%
8	D, D	511	0.2%
9	W, W	589	0.2%
10	W, W	0	0.0%
11	W, AN	-418	-0.2%
12	D, D	-118	-0.1%
13	W, W	678	0.3%
14	D, D	-556	-0.3%
15	C, C	-49	0.0%
16	D, C	490	0.2%
17	C, C	-114	-0.1%
18	C, C	-1,980	-0.8%
19	C, C	1,783	0.7%
20	AN, W	264	0.1%
21	C, C	-438	-0.2%
22	W, W	-170	0.0%
23	W, W	-639	-0.2%
24	W, W	185	0.1%
25	W, W	56	0.0%
26	W, AN	-91	0.0%
27	AN, AN	254	0.1%
28	D, D	92	0.0%
29	D, D	154	0.1%
30	AN, BN	-12	0.0%
31	BN, D	231	0.1%
32	AN, W	-657	-0.3%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
33	W, W	312	0.1%
34	D, C	705	0.3%
35	C, C	-1,038	-0.5%
36	D, BN	327	0.1%
37	BN, AN	330	0.1%
38	W, W	52	0.0%
39	BN, D	289	0.1%
40	D, C	-309	-0.1%
41	C, C	-93	0.0%
42	C, C	-880	-0.3%
<b>Average</b>		<b>-69</b>	<b>0.0%</b>
<b>Maximum</b>		<b>1,783</b>	<b>0.7%</b>
<b>Minimum</b>		<b>-2,379</b>	<b>-1.2%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-219. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 9 (SR9) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	807	-0.3%
2	W, W	-1,751	0.4%
3	C, C	-2,613	0.6%
4	C, C	-9,749	2.7%
5	AN, W	7,258	-4.2%
6	BN, AN	-582	0.2%
7	AN, W	1,411	-0.5%
8	D, D	-2,413	0.7%
9	W, W	6,126	-2.3%
10	W, W	178	0.0%
11	W, AN	-3,568	0.8%
12	D, D	808	-0.2%
13	W, W	4,062	-1.1%
14	D, D	-2,454	0.6%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
15	C, C	-2,542	0.6%
16	D, C	3,575	-1.1%
17	C, C	3,040	-0.8%
18	C, C	-1,507	0.4%
19	C, C	17,136	-5.7%
20	AN, W	-15,188	7.4%
21	C, C	-3,689	1.0%
22	W, W	-1,135	0.6%
23	W, W	-3,187	1.1%
24	W, W	1,550	-0.4%
25	W, W	-189	0.1%
26	W, AN	-3,934	0.9%
27	AN, AN	3,591	-0.8%
28	D, D	-1,250	0.3%
29	D, D	3,704	-1.0%
30	AN, BN	-1,160	0.3%
31	BN, D	-737	0.2%
32	AN, W	1,748	-0.4%
33	W, W	-2,620	0.7%
34	D, C	924	-0.2%
35	C, C	-1,838	0.4%
36	D, BN	168	0.0%
37	BN, AN	4,318	-1.3%
38	W, W	-1,088	0.4%
39	BN, D	-1,559	0.4%
40	D, C	1,151	-0.3%
41	C, C	-12,823	3.1%
42	C, C	9,581	-2.8%
<b>Average</b>		<b>-153</b>	<b>0.0%</b>
<b>Maximum</b>		<b>17,136</b>	<b>7.4%</b>
<b>Minimum</b>		<b>-15,188</b>	<b>-5.7%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-220. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 10 (SR10) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	-791	0.9%
2	W, W	246	-0.3%
3	C, C	297	-0.3%
4	C, C	-8,333	37.1%
5	AN, W	-2,282	-13.6%
6	BN, AN	-269	0.4%
7	AN, W	-817	1.9%
8	D, D	-479	0.6%
9	W, W	812	-1.2%
10	W, W	875	-1.0%
11	W, AN	793	-0.7%
12	D, D	-87	0.1%
13	W, W	1,159	-1.4%
14	D, D	300	-0.3%
15	C, C	849	-0.8%
16	D, C	1,972	-2.6%
17	C, C	1,998	-3.3%
18	C, C	-320	-5.8%
19	C, C	-542	-4.6%
20	AN, W	1,070	5.5%
21	C, C	-1,404	4.3%
22	W, W	826	13.8%
23	W, W	1,859	-3.4%
24	W, W	1,032	-1.4%
25	W, W	-467	0.6%
26	W, AN	-432	0.3%
27	AN, AN	-47	0.0%
28	D, D	-20	0.0%
29	D, D	219	-0.2%
30	AN, BN	1,130	-1.2%
31	BN, D	673	-0.7%
32	AN, W	-1,641	1.6%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
33	W, W	-1,577	1.4%
34	D, C	-511	0.4%
35	C, C	-517	0.6%
36	D, BN	76	-0.1%
37	BN, AN	1,244	-1.7%
38	W, W	3,064	-2.7%
39	BN, D	1,844	-1.3%
40	D, C	372	-0.3%
41	C, C	-9,897	20.8%
42	C, C	-6,622	78.9%
<b>Average</b>		<b>-342</b>	<b>2.9%</b>
<b>Maximum</b>		<b>3,064</b>	<b>78.9%</b>
<b>Minimum</b>		<b>-9,897</b>	<b>-13.6%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-221. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 11 (SR11) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	-683	1.6%
2	W, W	-472	1.0%
3	C, C	-524	2.6%
4	C, C	18,312	19.2%
5	AN, W	-12,176	-16.9%
6	BN, AN	-278	-0.9%
7	AN, W	-994	-13.2%
8	D, D	0	0.0%
9	W, W	-1,117	5.7%
10	W, W	-893	2.8%
11	W, AN	-177	0.2%
12	D, D	-616	0.9%
13	W, W	-2,328	4.4%
14	D, D	1,677	-4.3%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
15	C, C	438	2.0%
16	D, C	322	0.6%
17	C, C	-390	-0.6%
18	C, C	1,493	1.8%
19	C, C	239	0.3%
20	AN, W	-3,368	-7.8%
21	C, C	-4,160	-9.0%
22	W, W	-2,282	-5.9%
23	W, W	-502	4.9%
24	W, W	-4,033	19.2%
25	W, W	6,212	-13.9%
26	W, AN	1,802	-1.7%
27	AN, AN	-767	1.5%
28	D, D	1,064	-2.3%
29	D, D	382	-1.1%
30	AN, BN	462	-1.4%
31	BN, D	133	-0.4%
32	AN, W	4,440	-8.8%
33	W, W	-3,634	5.5%
34	D, C	605	-0.8%
35	C, C	266	-5.7%
36	D, BN	-546	-3.0%
37	BN, AN	830	-11.3%
38	W, W	327	71.8%
39	BN, D	331	-0.4%
40	D, C	349	-2.6%
41	C, C	17,529	28.4%
42	C, C	-12,844	-14.1%
<b>Average</b>		<b>105</b>	<b>1.2%</b>
<b>Maximum</b>		<b>18,312</b>	<b>71.8%</b>
<b>Minimum</b>		<b>-12,844</b>	<b>-16.9%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-222. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 12 (SR12) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	-292	-0.3%
2	W, W	-176	-0.2%
3	C, C	-11	0.0%
4	C, C	-132	-0.1%
5	AN, W	35	0.0%
6	BN, AN	142	0.1%
7	AN, W	58	0.0%
8	D, D	92	0.1%
9	W, W	148	0.2%
10	W, W	271	0.3%
11	W, AN	288	0.5%
12	D, D	78	0.1%
13	W, W	84	0.1%
14	D, D	273	0.3%
15	C, C	302	0.2%
16	D, C	396	0.2%
17	C, C	-176	-0.1%
18	C, C	1,734	0.7%
19	C, C	434	0.2%
20	AN, W	-2,182	-1.1%
21	C, C	-1,435	-0.7%
22	W, W	378	0.2%
23	W, W	556	0.5%
24	W, W	348	0.3%
25	W, W	227	0.3%
26	W, AN	97	0.2%
27	AN, AN	97	0.1%
28	D, D	157	0.2%
29	D, D	248	0.2%
30	AN, BN	425	0.4%
31	BN, D	309	0.3%
32	AN, W	-56	-0.1%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
33	W, W	-95	-0.2%
34	D, C	-133	-0.2%
35	C, C	-109	-0.1%
36	D, BN	-323	-0.2%
37	BN, AN	797	0.7%
38	W, W	578	0.6%
39	BN, D	562	1.0%
40	D, C	399	0.3%
41	C, C	230	0.1%
42	C, C	383	0.2%
<b>Average</b>		<b>119</b>	<b>0.1%</b>
<b>Maximum</b>		<b>1,734</b>	<b>1.0%</b>
<b>Minimum</b>		<b>-2,182</b>	<b>-1.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-223. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 13 (SR13) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	629	0.1%
2	W, W	709	0.1%
3	C, C	724	0.1%
4	C, C	-4,211	-0.7%
5	AN, W	-1,118	-0.1%
6	BN, AN	180	0.0%
7	AN, W	200	0.0%
8	D, D	516	0.1%
9	W, W	688	0.1%
10	W, W	745	0.1%
11	W, AN	916	0.2%
12	D, D	875	0.2%
13	W, W	932	0.1%
14	D, D	861	0.1%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
15	C, C	1,034	0.2%
16	D, C	1,444	0.2%
17	C, C	1,011	0.2%
18	C, C	-4	0.0%
19	C, C	135	0.0%
20	AN, W	610	0.1%
21	C, C	1,005	0.1%
22	W, W	1,260	0.2%
23	W, W	1,428	0.2%
24	W, W	1,176	0.1%
25	W, W	1,094	0.1%
26	W, AN	857	0.2%
27	AN, AN	1,033	0.2%
28	D, D	834	0.1%
29	D, D	1,015	0.2%
30	AN, BN	1,118	0.2%
31	BN, D	1,181	0.2%
32	AN, W	1,201	0.2%
33	W, W	1,142	0.2%
34	D, C	806	0.1%
35	C, C	660	0.1%
36	D, BN	837	0.1%
37	BN, AN	1,294	0.2%
38	W, W	1,315	0.2%
39	BN, D	1,449	0.2%
40	D, C	1,341	0.2%
41	C, C	-4,673	-0.7%
42	C, C	-3,421	-0.5%
<b>Average</b>		<b>496</b>	<b>0.1%</b>
<b>Maximum</b>		<b>1,449</b>	<b>0.2%</b>
<b>Minimum</b>		<b>-4,673</b>	<b>-0.7%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-224. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 14 (SR14) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	-45	-0.1%
2	W, W	-153	-0.3%
3	C, C	52	0.1%
4	C, C	-125	-0.3%
5	AN, W	-45	0.0%
6	BN, AN	143	0.3%
7	AN, W	7	0.0%
8	D, D	-4	0.0%
9	W, W	-6	0.0%
10	W, W	3	0.0%
11	W, AN	441	0.8%
12	D, D	-16	0.0%
13	W, W	-106	-0.1%
14	D, D	-432	-0.9%
15	C, C	-78	-0.2%
16	D, C	10	0.0%
17	C, C	-90	-0.2%
18	C, C	-111	-0.2%
19	C, C	-41	-0.1%
20	AN, W	-82	-0.1%
21	C, C	2	0.0%
22	W, W	-60	-0.1%
23	W, W	4	0.0%
24	W, W	37	0.0%
25	W, W	11	0.0%
26	W, AN	3	0.0%
27	AN, AN	-20	0.0%
28	D, D	11	0.0%
29	D, D	7	0.0%
30	AN, BN	-14	0.0%
31	BN, D	36	0.1%
32	AN, W	-41	-0.1%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
33	W, W	155	0.3%
34	D, C	2	0.0%
35	C, C	-61	-0.1%
36	D, BN	-260	-0.6%
37	BN, AN	-170	-0.3%
38	W, W	-5	0.0%
39	BN, D	58	0.1%
40	D, C	-3	0.0%
41	C, C	-101	-0.2%
42	C, C	-32	-0.1%
<b>Average</b>		<b>-27</b>	<b>-0.1%</b>
<b>Maximum</b>		<b>441</b>	<b>0.8%</b>
<b>Minimum</b>		<b>-432</b>	<b>-0.9%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-225. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 15 (SR15) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	-1,123	-0.2%
2	W, W	-341	-0.1%
3	C, C	276	0.1%
4	C, C	-250	-0.1%
5	AN, W	234	0.0%
6	BN, AN	586	0.1%
7	AN, W	2,041	0.3%
8	D, D	697	0.2%
9	W, W	2,724	0.4%
10	W, W	3,467	0.6%
11	W, AN	1,999	0.5%
12	D, D	505	0.1%
13	W, W	3,225	0.6%
14	D, D	2,494	0.6%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
15	C, C	3,273	0.9%
16	D, C	3,463	0.9%
17	C, C	2,969	0.7%
18	C, C	2,229	0.5%
19	C, C	1,805	0.4%
20	AN, W	1,854	0.4%
21	C, C	1,110	0.2%
22	W, W	4,630	0.5%
23	W, W	2,642	0.4%
24	W, W	515	0.1%
25	W, W	1,553	0.3%
26	W, AN	1,001	0.3%
27	AN, AN	66	0.0%
28	D, D	607	0.1%
29	D, D	871	0.2%
30	AN, BN	824	0.2%
31	BN, D	-342	-0.1%
32	AN, W	-783	-0.1%
33	W, W	2,594	0.4%
34	D, C	-152	0.0%
35	C, C	-4	0.0%
36	D, BN	1,171	0.3%
37	BN, AN	2,366	0.3%
38	W, W	5,468	0.7%
39	BN, D	1,862	0.4%
40	D, C	1,022	0.2%
41	C, C	1,498	0.3%
42	C, C	38	0.0%
<b>Average</b>		<b>1,445</b>	<b>0.3%</b>
<b>Maximum</b>		<b>5,468</b>	<b>0.9%</b>
<b>Minimum</b>		<b>-1,123</b>	<b>-0.2%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-226. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 16 (SR16) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	96	0.3%
2	W, W	104	0.4%
3	C, C	108	0.2%
4	C, C	135	0.2%
5	AN, W	103	0.2%
6	BN, AN	148	0.4%
7	AN, W	164	0.4%
8	D, D	138	0.3%
9	W, W	156	0.4%
10	W, W	153	0.5%
11	W, AN	168	1.0%
12	D, D	184	0.7%
13	W, W	237	0.9%
14	D, D	219	0.8%
15	C, C	211	0.5%
16	D, C	312	0.6%
17	C, C	236	0.4%
18	C, C	318	0.4%
19	C, C	291	0.4%
20	AN, W	258	0.4%
21	C, C	278	0.5%
22	W, W	282	0.6%
23	W, W	299	0.7%
24	W, W	262	0.7%
25	W, W	249	0.8%
26	W, AN	238	1.0%
27	AN, AN	273	1.0%
28	D, D	281	0.7%
29	D, D	306	0.6%
30	AN, BN	336	0.6%
31	BN, D	346	0.6%
32	AN, W	323	0.8%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
33	W, W	342	1.2%
34	D, C	312	0.7%
35	C, C	308	0.5%
36	D, BN	321	0.5%
37	BN, AN	365	0.7%
38	W, W	338	1.0%
39	BN, D	313	0.7%
40	D, C	284	0.4%
41	C, C	376	0.4%
42	C, C	265	0.3%
<b>Average</b>		<b>248</b>	<b>0.6%</b>
<b>Maximum</b>		<b>376</b>	<b>1.2%</b>
<b>Minimum</b>		<b>96</b>	<b>0.2%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-227. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 17 (SR17) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	85	0.4%
2	W, W	111	0.2%
3	C, C	123	0.1%
4	C, C	24	0.0%
5	AN, W	180	0.2%
6	BN, AN	118	1.6%
7	AN, W	64	-0.2%
8	D, D	151	1.3%
9	W, W	202	0.8%
10	W, W	202	-0.4%
11	W, AN	191	-0.2%
12	D, D	290	-3.6%
13	W, W	206	-1.5%
14	D, D	293	4.5%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
15	C, C	310	0.6%
16	D, C	100	0.2%
17	C, C	19	0.0%
18	C, C	29	0.0%
19	C, C	-4	0.0%
20	AN, W	220	0.2%
21	C, C	229	0.2%
22	W, W	274	0.4%
23	W, W	313	0.9%
24	W, W	349	-2.3%
25	W, W	307	-13.5%
26	W, AN	336	-1.8%
27	AN, AN	331	1.9%
28	D, D	283	0.5%
29	D, D	163	0.2%
30	AN, BN	221	0.3%
31	BN, D	181	0.2%
32	AN, W	340	0.5%
33	W, W	452	1.5%
34	D, C	474	0.7%
35	C, C	266	0.3%
36	D, BN	243	0.3%
37	BN, AN	451	0.3%
38	W, W	642	0.9%
39	BN, D	486	0.9%
40	D, C	210	0.2%
41	C, C	185	0.1%
42	C, C	7	0.0%
<b>Average</b>		<b>230</b>	<b>-0.1%</b>
<b>Maximum</b>		<b>642</b>	<b>4.5%</b>
<b>Minimum</b>		<b>-4</b>	<b>-13.5%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-228. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 18 (SR18) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	-1,794	3.2%
2	W, W	-1,632	2.3%
3	C, C	-1,026	3.1%
4	C, C	-459	-1.1%
5	AN, W	-804	-0.6%
6	BN, AN	-3,031	1.5%
7	AN, W	-2,054	0.9%
8	D, D	-2,153	0.7%
9	W, W	-1,859	0.6%
10	W, W	-2,181	0.2%
11	W, AN	-2,000	0.2%
12	D, D	-5,052	0.7%
13	W, W	-3,496	0.5%
14	D, D	-3,071	0.4%
15	C, C	-2,462	0.6%
16	D, C	-2,167	1.4%
17	C, C	-1,364	23.1%
18	C, C	-860	-1.6%
19	C, C	-463	-0.6%
20	AN, W	-323	-0.3%
21	C, C	-396	-4.6%
22	W, W	-1,371	-4.6%
23	W, W	-1,851	0.6%
24	W, W	-19,928	8.9%
25	W, W	-10,643	2.1%
26	W, AN	-7,369	0.9%
27	AN, AN	-7,353	1.3%
28	D, D	-6,620	1.5%
29	D, D	-6,347	3.0%
30	AN, BN	-6,112	8.2%
31	BN, D	-4,295	12.1%
32	AN, W	-5,147	7.4%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
33	W, W	-5,917	3.2%
34	D, C	-5,015	3.2%
35	C, C	-2,493	-4.9%
36	D, BN	-1,212	-1.6%
37	BN, AN	-1,319	-1.6%
38	W, W	-6,085	2.6%
39	BN, D	-4,772	1.8%
40	D, C	-3,035	8.7%
41	C, C	-710	-1.1%
42	C, C	-509	-0.5%
<b>Average</b>		<b>-3,494</b>	<b>1.9%</b>
<b>Maximum</b>		<b>-323</b>	<b>23.1%</b>
<b>Minimum</b>		<b>-19,928</b>	<b>-4.9%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-229. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 19 (SR19) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	0	0.0%
3	C, C	0	0.0%
4	C, C	0	0.0%
5	AN, W	0	0.0%
6	BN, AN	0	0.0%
7	AN, W	0	0.0%
8	D, D	0	0.0%
9	W, W	0	0.0%
10	W, W	0	0.0%
11	W, AN	-1	0.0%
12	D, D	-1	-0.1%
13	W, W	-3	0.0%
14	D, D	-1	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
15	C, C	0	0.0%
16	D, C	0	0.0%
17	C, C	0	0.0%
18	C, C	0	0.0%
19	C, C	0	0.0%
20	AN, W	0	0.0%
21	C, C	0	0.0%
22	W, W	8	-0.2%
23	W, W	4	-0.7%
24	W, W	2	-0.1%
25	W, W	2	0.0%
26	W, AN	2	0.0%
27	AN, AN	0	0.2%
28	D, D	0	0.0%
29	D, D	0	0.0%
30	AN, BN	0	0.0%
31	BN, D	0	0.0%
32	AN, W	-1	0.0%
33	W, W	-1	0.0%
34	D, C	-1	0.0%
35	C, C	0	0.0%
36	D, BN	0	0.0%
37	BN, AN	0	0.0%
38	W, W	0	0.0%
39	BN, D	0	0.0%
40	D, C	0	0.0%
41	C, C	0	0.0%
42	C, C	0	0.0%
<b>Average</b>		<b>0</b>	<b>0.0%</b>
<b>Maximum</b>		<b>8</b>	<b>0.2%</b>
<b>Minimum</b>		<b>-3</b>	<b>-0.7%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-230. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 20 (SR20) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	0	0.0%
3	C, C	0	0.0%
4	C, C	0	0.0%
5	AN, W	0	0.0%
6	BN, AN	0	0.0%
7	AN, W	0	0.0%
8	D, D	0	0.0%
9	W, W	0	0.0%
10	W, W	0	0.0%
11	W, AN	0	0.0%
12	D, D	0	0.0%
13	W, W	0	0.0%
14	D, D	0	0.0%
15	C, C	0	0.0%
16	D, C	0	0.0%
17	C, C	0	0.0%
18	C, C	0	0.0%
19	C, C	0	0.0%
20	AN, W	0	0.0%
21	C, C	0	0.0%
22	W, W	0	0.0%
23	W, W	0	0.0%
24	W, W	0	0.0%
25	W, W	0	0.0%
26	W, AN	0	0.0%
27	AN, AN	0	0.0%
28	D, D	0	0.0%
29	D, D	1	0.0%
30	AN, BN	0	0.0%
31	BN, D	0	0.0%
32	AN, W	0	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
33	W, W	0	0.0%
34	D, C	0	0.0%
35	C, C	0	0.0%
36	D, BN	0	0.0%
37	BN, AN	0	0.0%
38	W, W	0	0.0%
39	BN, D	0	0.0%
40	D, C	0	0.0%
41	C, C	0	0.0%
42	C, C	0	0.0%
<b>Average</b>		<b>0</b>	<b>0.0%</b>
<b>Maximum</b>		<b>1</b>	<b>0.0%</b>
<b>Minimum</b>		<b>0</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-231. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 21 (SR21) for Alternative 2 With TUCP Without VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	0	0.0%
3	C, C	0	0.0%
4	C, C	0	0.0%
5	AN, W	0	0.0%
6	BN, AN	0	0.0%
7	AN, W	0	0.0%
8	D, D	0	0.0%
9	W, W	0	0.0%
10	W, W	-1	0.0%
11	W, AN	-1	0.0%
12	D, D	0	0.0%
13	W, W	-1	0.0%
14	D, D	0	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1wTUCP minus NAA (TAF)	Alt2v1wTUCP minus NAA (% Difference)
15	C, C	0	0.0%
16	D, C	0	0.0%
17	C, C	0	0.0%
18	C, C	0	0.0%
19	C, C	0	0.0%
20	AN, W	0	0.0%
21	C, C	0	0.0%
22	W, W	0	0.0%
23	W, W	-1	0.0%
24	W, W	-1	0.0%
25	W, W	-2	0.0%
26	W, AN	-1	0.0%
27	AN, AN	0	0.0%
28	D, D	0	0.0%
29	D, D	0	0.0%
30	AN, BN	0	0.0%
31	BN, D	0	0.0%
32	AN, W	-1	0.0%
33	W, W	-2	0.0%
34	D, C	0	0.0%
35	C, C	0	0.0%
36	D, BN	0	0.0%
37	BN, AN	0	0.0%
38	W, W	0	0.0%
39	BN, D	0	0.0%
40	D, C	0	0.0%
41	C, C	0	0.0%
42	C, C	0	0.0%
<b>Average</b>		<b>0</b>	<b>0.0%</b>
<b>Maximum</b>		<b>0</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-2</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

**I-1.2.4 Changes in Groundwater-Surface Water Interaction Flow, Alternative 2 without TUCP Without VA Compared to No Action Alternative**

Table I.1-232 through Table I.1-252 provide the annual simulated groundwater-surface water interaction flow through the model simulation period for each of the 21 model subregions for Alternative 2 without TUCP without VA compared to the No Action Alternative.

Table I.1-232. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 1 (SR1) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	1,667	-0.6%
2	W, W	-336	0.1%
3	C, C	-929	0.3%
4	C, C	15,342	-5.9%
5	AN, W	7,860	-3.5%
6	BN, AN	4,594	-1.8%
7	AN, W	-668	0.3%
8	D, D	913	-0.4%
9	W, W	1,028	-0.4%
10	W, W	-1,240	0.4%
11	W, AN	-836	0.2%
12	D, D	165	-0.1%
13	W, W	548	-0.2%
14	D, D	1,208	-0.4%
15	C, C	-387	0.1%
16	D, C	2,102	-0.9%
17	C, C	1,362	-0.6%
18	C, C	11,384	-5.6%
19	C, C	20,689	-10.7%
20	AN, W	1,552	-0.8%
21	C, C	-278	0.1%
22	W, W	2,566	-1.2%
23	W, W	142	-0.1%
24	W, W	2,813	-1.0%
25	W, W	416	-0.2%
26	W, AN	-1,291	0.4%
27	AN, AN	2,672	-0.9%
28	D, D	1,075	-0.4%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
29	D, D	513	-0.2%
30	AN, BN	-134	0.0%
31	BN, D	-53	0.0%
32	AN, W	746	-0.3%
33	W, W	1,558	-0.5%
34	D, C	-2,564	0.8%
35	C, C	2,150	-0.7%
36	D, BN	352	-0.1%
37	BN, AN	543	-0.2%
38	W, W	809	-0.3%
39	BN, D	-281	0.1%
40	D, C	1,364	-0.5%
41	C, C	10,476	-4.4%
42	C, C	10,484	-4.9%
<b>Average</b>		<b>2,383</b>	<b>-1.1%</b>
<b>Maximum</b>		<b>20,689</b>	<b>0.8%</b>
<b>Minimum</b>		<b>-2,564</b>	<b>-10.7%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-233. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 2 (SR2) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	3,344	3.5%
2	W, W	-405	-0.9%
3	C, C	-416	-3.2%
4	C, C	7,126	-58.2%
5	AN, W	-1,641	-0.4%
6	BN, AN	8,571	6.3%
7	AN, W	1,288	0.7%
8	D, D	3,086	2.5%
9	W, W	1,816	1.3%
10	W, W	-1,162	-7.4%
11	W, AN	-1,114	3.6%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
12	D, D	367	1.2%
13	W, W	2,256	3.4%
14	D, D	2,682	4.0%
15	C, C	3,547	2.5%
16	D, C	10,056	5.1%
17	C, C	3,961	3.5%
18	C, C	-220	-0.1%
19	C, C	16,049	6.3%
20	AN, W	579	0.2%
21	C, C	222	0.2%
22	W, W	12,414	4.5%
23	W, W	5,176	3.4%
24	W, W	6,750	8.4%
25	W, W	1,548	1.9%
26	W, AN	-2,797	-87.1%
27	AN, AN	5,061	10.8%
28	D, D	2,228	6.6%
29	D, D	2,146	1.9%
30	AN, BN	288	0.2%
31	BN, D	-159	-0.2%
32	AN, W	1,189	1.5%
33	W, W	2,626	7.1%
34	D, C	-3,844	-16.7%
35	C, C	4,403	5.0%
36	D, BN	3,416	2.7%
37	BN, AN	2,136	1.1%
38	W, W	3,970	2.5%
39	BN, D	189	0.3%
40	D, C	2,418	1.9%
41	C, C	973	0.9%
42	C, C	12,226	5.6%
<b>Average</b>		<b>2,913</b>	<b>-1.5%</b>
<b>Maximum</b>		<b>16,049</b>	<b>10.8%</b>
<b>Minimum</b>		<b>-3,844</b>	<b>-87.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-234. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 3 (SR3) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	1,024	-1.1%
2	W, W	1,009	-1.1%
3	C, C	1,512	-1.8%
4	C, C	13,112	-20.0%
5	AN, W	13,899	-28.4%
6	BN, AN	5,600	-8.0%
7	AN, W	4,150	-5.7%
8	D, D	3,279	-4.3%
9	W, W	2,399	-2.8%
10	W, W	2,319	-2.2%
11	W, AN	2,102	-1.9%
12	D, D	1,960	-2.0%
13	W, W	2,096	-2.4%
14	D, D	2,504	-3.0%
15	C, C	4,451	-5.7%
16	D, C	5,779	-8.3%
17	C, C	3,566	-5.2%
18	C, C	12,643	-25.4%
19	C, C	15,554	-39.2%
20	AN, W	5,713	-12.8%
21	C, C	6,018	-9.1%
22	W, W	8,509	-14.7%
23	W, W	6,027	-7.8%
24	W, W	4,977	-5.7%
25	W, W	4,221	-4.8%
26	W, AN	3,790	-3.7%
27	AN, AN	3,685	-4.0%
28	D, D	3,346	-3.8%
29	D, D	3,310	-3.9%
30	AN, BN	2,612	-3.0%
31	BN, D	2,245	-2.4%
32	AN, W	1,784	-1.9%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
33	W, W	1,660	-1.7%
34	D, C	1,574	-1.6%
35	C, C	2,571	-2.9%
36	D, BN	3,841	-5.0%
37	BN, AN	2,624	-3.6%
38	W, W	2,338	-2.6%
39	BN, D	2,108	-2.4%
40	D, C	2,537	-3.0%
41	C, C	17,119	-24.3%
42	C, C	16,356	-33.8%
<b>Average</b>		<b>4,951</b>	<b>-7.8%</b>
<b>Maximum</b>		<b>17,119</b>	<b>-1.1%</b>
<b>Minimum</b>		<b>1,009</b>	<b>-39.2%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-235. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 4 (SR4) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	7,097	-1.7%
2	W, W	-385	0.1%
3	C, C	-1,159	0.3%
4	C, C	50,898	-17.5%
5	AN, W	24,717	-8.0%
6	BN, AN	22,630	-5.9%
7	AN, W	2,333	-0.6%
8	D, D	4,194	-1.2%
9	W, W	9,558	-2.2%
10	W, W	4,908	-1.1%
11	W, AN	983	-0.2%
12	D, D	3,647	-0.9%
13	W, W	5,824	-1.3%
14	D, D	5,965	-1.7%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
15	C, C	3,949	-1.1%
16	D, C	11,608	-3.5%
17	C, C	3,466	-0.9%
18	C, C	33,105	-10.4%
19	C, C	68,148	-23.7%
20	AN, W	8,684	-2.4%
21	C, C	7,557	-2.2%
22	W, W	15,888	-4.1%
23	W, W	6,978	-1.9%
24	W, W	13,802	-3.5%
25	W, W	6,568	-1.6%
26	W, AN	-1,936	0.5%
27	AN, AN	15,520	-3.9%
28	D, D	7,683	-1.9%
29	D, D	4,850	-1.2%
30	AN, BN	3,511	-0.9%
31	BN, D	620	-0.2%
32	AN, W	6,883	-1.6%
33	W, W	6,758	-1.6%
34	D, C	-5,077	1.4%
35	C, C	9,213	-2.3%
36	D, BN	4,226	-1.2%
37	BN, AN	5,139	-1.4%
38	W, W	6,680	-1.6%
39	BN, D	281	-0.1%
40	D, C	6,390	-1.7%
41	C, C	40,131	-11.7%
42	C, C	54,905	-18.1%
<b>Average</b>		<b>11,589</b>	<b>-3.5%</b>
<b>Maximum</b>		<b>68,148</b>	<b>1.4%</b>
<b>Minimum</b>		<b>-5,077</b>	<b>-23.7%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-236. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 5 (SR5) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	-725	0.2%
2	W, W	-806	0.2%
3	C, C	957	-0.2%
4	C, C	-8,500	3.5%
5	AN, W	10,114	-6.3%
6	BN, AN	-4,726	1.5%
7	AN, W	5,478	-1.4%
8	D, D	-4,907	1.4%
9	W, W	4,080	-1.0%
10	W, W	3,184	-0.6%
11	W, AN	-1,755	0.4%
12	D, D	-2,960	0.7%
13	W, W	7,362	-1.8%
14	D, D	-2,384	0.7%
15	C, C	3,627	-1.2%
16	D, C	-1,056	0.4%
17	C, C	-2,076	0.6%
18	C, C	3,189	-1.3%
19	C, C	-29	0.0%
20	AN, W	17,152	-6.5%
21	C, C	1,395	-0.4%
22	W, W	6,546	-1.9%
23	W, W	3,382	-0.9%
24	W, W	173	0.0%
25	W, W	469	-0.1%
26	W, AN	813	-0.2%
27	AN, AN	-64	0.0%
28	D, D	-3,856	0.9%
29	D, D	7,634	-2.0%
30	AN, BN	-148	0.0%
31	BN, D	811	-0.2%
32	AN, W	2,759	-0.6%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
33	W, W	-2,016	0.4%
34	D, C	8,681	-2.0%
35	C, C	549	-0.1%
36	D, BN	4,976	-1.6%
37	BN, AN	2,395	-0.8%
38	W, W	-126	0.0%
39	BN, D	-601	0.2%
40	D, C	1,619	-0.4%
41	C, C	6,913	-2.4%
42	C, C	859	-0.4%
<b>Average</b>		<b>1,628</b>	<b>-0.6%</b>
<b>Maximum</b>		<b>17,152</b>	<b>3.5%</b>
<b>Minimum</b>		<b>-8,500</b>	<b>-6.5%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-237. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 6 (SR6) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	759	1.3%
2	W, W	33	0.0%
3	C, C	-180	-0.2%
4	C, C	-1,712	-1.2%
5	AN, W	-2,486	-1.1%
6	BN, AN	-317	-0.2%
7	AN, W	1,448	1.3%
8	D, D	-1,542	-1.1%
9	W, W	2,318	3.9%
10	W, W	351	-1.6%
11	W, AN	-646	-2.3%
12	D, D	545	0.8%
13	W, W	1,743	3.8%
14	D, D	-71	-0.1%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
15	C, C	-52	0.0%
16	D, C	1,374	0.9%
17	C, C	-1,785	-1.5%
18	C, C	-5,988	-3.4%
19	C, C	-666	-0.3%
20	AN, W	-1,634	-0.6%
21	C, C	-953	-0.6%
22	W, W	2,014	1.0%
23	W, W	171	0.1%
24	W, W	991	1.0%
25	W, W	382	0.7%
26	W, AN	-481	-0.8%
27	AN, AN	1,410	1.7%
28	D, D	249	0.3%
29	D, D	1,065	1.0%
30	AN, BN	409	0.4%
31	BN, D	137	0.1%
32	AN, W	1,148	1.7%
33	W, W	526	1.3%
34	D, C	-344	-0.4%
35	C, C	197	0.2%
36	D, BN	1,011	0.8%
37	BN, AN	1,244	0.9%
38	W, W	124	0.2%
39	BN, D	-754	-0.6%
40	D, C	347	0.2%
41	C, C	-3,380	-2.5%
42	C, C	828	0.4%
<b>Average</b>		<b>-52</b>	<b>0.1%</b>
<b>Maximum</b>		<b>2,318</b>	<b>3.9%</b>
<b>Minimum</b>		<b>-5,988</b>	<b>-3.4%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-238. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 7 (SR7) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	-1,180	8.2%
2	W, W	-72	0.3%
3	C, C	400	-2.3%
4	C, C	-5,394	-17.4%
5	AN, W	-833	-1.8%
6	BN, AN	-1,252	-50.9%
7	AN, W	110	-1.4%
8	D, D	-843	-11.8%
9	W, W	908	21.3%
10	W, W	103	-0.3%
11	W, AN	-1,430	4.3%
12	D, D	-571	1.8%
13	W, W	2,361	-6.7%
14	D, D	-1,564	13.0%
15	C, C	-279	26.5%
16	D, C	987	5.4%
17	C, C	-680	33.2%
18	C, C	-4,265	-18.8%
19	C, C	254	1.0%
20	AN, W	-3	0.0%
21	C, C	-1,614	-22.3%
22	W, W	-695	-2.9%
23	W, W	-765	-4.4%
24	W, W	121	-1.5%
25	W, W	332	-3.8%
26	W, AN	270	-1.9%
27	AN, AN	382	-3.6%
28	D, D	-223	1.3%
29	D, D	1,114	-1,913.2%
30	AN, BN	-200	-1.4%
31	BN, D	590	12.7%
32	AN, W	120	-6.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
33	W, W	-562	12.1%
34	D, C	1,407	-53.3%
35	C, C	-2,038	-77.1%
36	D, BN	653	2.7%
37	BN, AN	402	2.2%
38	W, W	259	2.9%
39	BN, D	-273	-2.8%
40	D, C	-286	-6.5%
41	C, C	-4,030	-13.7%
42	C, C	3,688	8.8%
<b>Average</b>		<b>-347</b>	<b>-49.2%</b>
<b>Maximum</b>		<b>3,688</b>	<b>33.2%</b>
<b>Minimum</b>		<b>-5,394</b>	<b>-1,913.2%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-239. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 8 (SR8) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	-590	-0.2%
2	W, W	-67	0.0%
3	C, C	57	0.0%
4	C, C	-1,736	-0.9%
5	AN, W	778	0.2%
6	BN, AN	216	0.1%
7	AN, W	-601	-0.2%
8	D, D	520	0.2%
9	W, W	498	0.1%
10	W, W	31	0.0%
11	W, AN	-430	-0.2%
12	D, D	-267	-0.2%
13	W, W	809	0.4%
14	D, D	-755	-0.4%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
15	C, C	-49	0.0%
16	D, C	440	0.2%
17	C, C	227	0.1%
18	C, C	-813	-0.3%
19	C, C	654	0.3%
20	AN, W	391	0.1%
21	C, C	-555	-0.2%
22	W, W	-278	-0.1%
23	W, W	-878	-0.2%
24	W, W	144	0.0%
25	W, W	46	0.0%
26	W, AN	-69	0.0%
27	AN, AN	255	0.1%
28	D, D	63	0.0%
29	D, D	136	0.1%
30	AN, BN	14	0.0%
31	BN, D	216	0.1%
32	AN, W	-675	-0.3%
33	W, W	306	0.1%
34	D, C	640	0.3%
35	C, C	-1,037	-0.5%
36	D, BN	309	0.1%
37	BN, AN	326	0.1%
38	W, W	75	0.0%
39	BN, D	303	0.1%
40	D, C	-116	0.0%
41	C, C	-926	-0.4%
42	C, C	3,107	1.2%
<b>Average</b>		<b>17</b>	<b>0.0%</b>
<b>Maximum</b>		<b>3,107</b>	<b>1.2%</b>
<b>Minimum</b>		<b>-1,736</b>	<b>-0.9%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-240. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 9 (SR9) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	929	-0.3%
2	W, W	-1,624	0.4%
3	C, C	-2,673	0.6%
4	C, C	-1,934	0.5%
5	AN, W	-1,481	0.9%
6	BN, AN	-470	0.1%
7	AN, W	2,356	-0.9%
8	D, D	-2,437	0.7%
9	W, W	6,095	-2.3%
10	W, W	8	0.0%
11	W, AN	-3,604	0.8%
12	D, D	812	-0.2%
13	W, W	4,597	-1.2%
14	D, D	-2,821	0.6%
15	C, C	-2,623	0.7%
16	D, C	3,504	-1.1%
17	C, C	6,280	-1.6%
18	C, C	2,469	-0.7%
19	C, C	14,984	-5.0%
20	AN, W	-19,510	9.5%
21	C, C	-4,079	1.1%
22	W, W	-289	0.1%
23	W, W	-3,526	1.2%
24	W, W	1,366	-0.4%
25	W, W	-398	0.1%
26	W, AN	-4,201	1.0%
27	AN, AN	3,187	-0.8%
28	D, D	-1,473	0.3%
29	D, D	3,290	-0.8%
30	AN, BN	-1,542	0.5%
31	BN, D	-966	0.3%
32	AN, W	1,736	-0.4%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
33	W, W	-2,706	0.8%
34	D, C	1,008	-0.2%
35	C, C	-1,845	0.4%
36	D, BN	155	0.0%
37	BN, AN	4,472	-1.3%
38	W, W	-1,024	0.3%
39	BN, D	-1,549	0.4%
40	D, C	1,187	-0.3%
41	C, C	-2,611	0.6%
42	C, C	20,246	-6.0%
<b>Average</b>		<b>317</b>	<b>0.0%</b>
<b>Maximum</b>		<b>20,246</b>	<b>9.5%</b>
<b>Minimum</b>		<b>-19,510</b>	<b>-6.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-241. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 10 (SR10) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	-536	0.6%
2	W, W	323	-0.4%
3	C, C	473	-0.5%
4	C, C	-22,146	98.7%
5	AN, W	-12,602	-74.8%
6	BN, AN	-3,576	5.3%
7	AN, W	-2,502	5.8%
8	D, D	-1,746	2.1%
9	W, W	-92	0.1%
10	W, W	72	-0.1%
11	W, AN	177	-0.1%
12	D, D	-549	0.5%
13	W, W	826	-1.0%
14	D, D	-83	0.1%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
15	C, C	500	-0.5%
16	D, C	1,666	-2.2%
17	C, C	2,111	-3.5%
18	C, C	-781	-14.2%
19	C, C	-1,023	-8.6%
20	AN, W	-332	-1.7%
21	C, C	-2,197	6.8%
22	W, W	394	6.6%
23	W, W	1,619	-2.9%
24	W, W	715	-1.0%
25	W, W	-819	1.1%
26	W, AN	-537	0.4%
27	AN, AN	-402	0.4%
28	D, D	-89	0.1%
29	D, D	22	0.0%
30	AN, BN	993	-1.1%
31	BN, D	412	-0.4%
32	AN, W	-1,841	1.8%
33	W, W	-1,705	1.5%
34	D, C	-420	0.4%
35	C, C	-455	0.5%
36	D, BN	69	-0.1%
37	BN, AN	1,217	-1.7%
38	W, W	2,852	-2.5%
39	BN, D	1,620	-1.2%
40	D, C	327	-0.3%
41	C, C	-14,398	30.3%
42	C, C	-10,247	122.1%
<b>Average</b>		<b>-1,493</b>	<b>4.0%</b>
<b>Maximum</b>		<b>2,852</b>	<b>122.1%</b>
<b>Minimum</b>		<b>-22,146</b>	<b>-74.8%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-242. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 11 (SR11) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	-660	1.6%
2	W, W	-409	0.9%
3	C, C	-434	2.2%
4	C, C	18,260	19.1%
5	AN, W	-12,207	-17.0%
6	BN, AN	-275	-0.9%
7	AN, W	-926	-12.3%
8	D, D	61	-0.3%
9	W, W	-1,009	5.2%
10	W, W	-812	2.6%
11	W, AN	-140	0.1%
12	D, D	-588	0.8%
13	W, W	-2,292	4.3%
14	D, D	1,716	-4.4%
15	C, C	497	2.3%
16	D, C	259	0.5%
17	C, C	-292	-0.4%
18	C, C	1,023	1.3%
19	C, C	-138	-0.2%
20	AN, W	-2,762	-6.4%
21	C, C	-4,023	-8.7%
22	W, W	-1,954	-5.0%
23	W, W	-693	6.7%
24	W, W	-4,119	19.6%
25	W, W	6,131	-13.7%
26	W, AN	1,671	-1.6%
27	AN, AN	-769	1.5%
28	D, D	1,070	-2.3%
29	D, D	343	-1.0%
30	AN, BN	430	-1.3%
31	BN, D	166	-0.5%
32	AN, W	4,464	-8.8%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
33	W, W	-3,734	5.7%
34	D, C	546	-0.8%
35	C, C	209	-4.5%
36	D, BN	-534	-2.9%
37	BN, AN	819	-11.1%
38	W, W	334	73.3%
39	BN, D	338	-0.4%
40	D, C	370	-2.7%
41	C, C	17,280	28.0%
42	C, C	-13,174	-14.5%
<b>Average</b>		<b>96</b>	<b>1.3%</b>
<b>Maximum</b>		<b>18,260</b>	<b>73.3%</b>
<b>Minimum</b>		<b>-13,174</b>	<b>-17.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-243. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 12 (SR12) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	-236	-0.3%
2	W, W	-51	-0.1%
3	C, C	44	0.0%
4	C, C	-403	-0.2%
5	AN, W	-431	-0.2%
6	BN, AN	88	0.1%
7	AN, W	134	0.1%
8	D, D	191	0.2%
9	W, W	324	0.3%
10	W, W	334	0.4%
11	W, AN	354	0.6%
12	D, D	124	0.2%
13	W, W	134	0.2%
14	D, D	341	0.4%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
15	C, C	374	0.3%
16	D, C	358	0.2%
17	C, C	-81	0.0%
18	C, C	1,357	0.6%
19	C, C	167	0.1%
20	AN, W	-1,466	-0.7%
21	C, C	-1,218	-0.6%
22	W, W	680	0.4%
23	W, W	418	0.3%
24	W, W	300	0.3%
25	W, W	134	0.2%
26	W, AN	83	0.2%
27	AN, AN	91	0.1%
28	D, D	175	0.2%
29	D, D	258	0.3%
30	AN, BN	429	0.4%
31	BN, D	304	0.3%
32	AN, W	-52	-0.1%
33	W, W	-91	-0.2%
34	D, C	-139	-0.2%
35	C, C	-206	-0.2%
36	D, BN	-292	-0.2%
37	BN, AN	810	0.7%
38	W, W	598	0.6%
39	BN, D	481	0.8%
40	D, C	354	0.3%
41	C, C	-60	0.0%
42	C, C	-11	0.0%
<b>Average</b>		<b>112</b>	<b>0.1%</b>
<b>Maximum</b>		<b>1,357</b>	<b>0.8%</b>
<b>Minimum</b>		<b>-1,466</b>	<b>-0.7%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-244. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 13 (SR13) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	918	0.2%
2	W, W	943	0.2%
3	C, C	930	0.1%
4	C, C	-12,206	-1.9%
5	AN, W	-7,014	-0.8%
6	BN, AN	-1,503	-0.2%
7	AN, W	-619	-0.1%
8	D, D	-83	0.0%
9	W, W	292	0.0%
10	W, W	425	0.1%
11	W, AN	713	0.1%
12	D, D	852	0.1%
13	W, W	970	0.1%
14	D, D	919	0.2%
15	C, C	977	0.2%
16	D, C	1,526	0.2%
17	C, C	1,143	0.2%
18	C, C	-55	0.0%
19	C, C	70	0.0%
20	AN, W	732	0.1%
21	C, C	1,010	0.1%
22	W, W	991	0.1%
23	W, W	1,363	0.2%
24	W, W	1,114	0.1%
25	W, W	981	0.1%
26	W, AN	1,027	0.2%
27	AN, AN	948	0.1%
28	D, D	884	0.1%
29	D, D	940	0.2%
30	AN, BN	976	0.2%
31	BN, D	1,185	0.2%
32	AN, W	1,284	0.2%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
33	W, W	1,181	0.2%
34	D, C	867	0.1%
35	C, C	1,093	0.2%
36	D, BN	902	0.1%
37	BN, AN	1,434	0.2%
38	W, W	1,165	0.2%
39	BN, D	1,425	0.2%
40	D, C	1,428	0.2%
41	C, C	-7,505	-1.1%
42	C, C	-5,586	-0.8%
<b>Average</b>		<b>-23</b>	<b>0.0%</b>
<b>Maximum</b>		<b>1,526</b>	<b>0.2%</b>
<b>Minimum</b>		<b>-12,206</b>	<b>-1.9%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-245. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 14 (SR14) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	-46	-0.1%
2	W, W	-159	-0.3%
3	C, C	69	0.2%
4	C, C	-99	-0.2%
5	AN, W	-4	0.0%
6	BN, AN	115	0.2%
7	AN, W	24	0.0%
8	D, D	-5	0.0%
9	W, W	-6	0.0%
10	W, W	10	0.0%
11	W, AN	441	0.8%
12	D, D	-16	0.0%
13	W, W	-111	-0.1%
14	D, D	-443	-1.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
15	C, C	-78	-0.2%
16	D, C	20	0.0%
17	C, C	-74	-0.2%
18	C, C	-26	0.0%
19	C, C	-47	-0.1%
20	AN, W	-83	-0.1%
21	C, C	-142	-0.3%
22	W, W	-99	-0.1%
23	W, W	1	0.0%
24	W, W	36	0.0%
25	W, W	12	0.0%
26	W, AN	10	0.0%
27	AN, AN	12	0.0%
28	D, D	9	0.0%
29	D, D	18	0.0%
30	AN, BN	-21	0.0%
31	BN, D	44	0.1%
32	AN, W	-40	-0.1%
33	W, W	155	0.3%
34	D, C	-26	-0.1%
35	C, C	-54	-0.1%
36	D, BN	-245	-0.5%
37	BN, AN	-162	-0.3%
38	W, W	1	0.0%
39	BN, D	45	0.1%
40	D, C	12	0.0%
41	C, C	-96	-0.2%
42	C, C	23	0.1%
<b>Average</b>		<b>-24</b>	<b>-0.1%</b>
<b>Maximum</b>		<b>441</b>	<b>0.8%</b>
<b>Minimum</b>		<b>-443</b>	<b>-1.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-246. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 15 (SR15) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	-631	-0.1%
2	W, W	263	0.1%
3	C, C	872	0.2%
4	C, C	-901	-0.2%
5	AN, W	-1,272	-0.1%
6	BN, AN	459	0.1%
7	AN, W	2,625	0.3%
8	D, D	861	0.2%
9	W, W	3,263	0.5%
10	W, W	4,135	0.8%
11	W, AN	2,346	0.6%
12	D, D	793	0.2%
13	W, W	3,740	0.7%
14	D, D	2,880	0.7%
15	C, C	3,706	1.0%
16	D, C	3,840	1.0%
17	C, C	2,929	0.7%
18	C, C	1,878	0.4%
19	C, C	1,540	0.3%
20	AN, W	1,341	0.3%
21	C, C	1,047	0.2%
22	W, W	4,964	0.5%
23	W, W	2,745	0.4%
24	W, W	632	0.1%
25	W, W	1,710	0.3%
26	W, AN	936	0.3%
27	AN, AN	48	0.0%
28	D, D	631	0.2%
29	D, D	789	0.2%
30	AN, BN	814	0.2%
31	BN, D	-339	-0.1%
32	AN, W	-769	-0.1%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
33	W, W	2,782	0.4%
34	D, C	-150	0.0%
35	C, C	53	0.0%
36	D, BN	1,234	0.3%
37	BN, AN	2,427	0.3%
38	W, W	5,769	0.7%
39	BN, D	1,947	0.4%
40	D, C	920	0.2%
41	C, C	196	0.0%
42	C, C	-1,953	-0.4%
<b>Average</b>		<b>1,455</b>	<b>0.3%</b>
<b>Maximum</b>		<b>5,769</b>	<b>1.0%</b>
<b>Minimum</b>		<b>-1,953</b>	<b>-0.4%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-247. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 16 (SR16) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	144	0.4%
2	W, W	147	0.5%
3	C, C	149	0.3%
4	C, C	178	0.2%
5	AN, W	139	0.2%
6	BN, AN	179	0.4%
7	AN, W	197	0.5%
8	D, D	188	0.5%
9	W, W	212	0.6%
10	W, W	210	0.7%
11	W, AN	217	1.3%
12	D, D	235	0.9%
13	W, W	308	1.2%
14	D, D	308	1.1%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
15	C, C	300	0.7%
16	D, C	374	0.7%
17	C, C	334	0.5%
18	C, C	404	0.6%
19	C, C	362	0.5%
20	AN, W	327	0.6%
21	C, C	342	0.6%
22	W, W	360	0.7%
23	W, W	372	0.9%
24	W, W	318	0.9%
25	W, W	331	1.0%
26	W, AN	339	1.4%
27	AN, AN	300	1.1%
28	D, D	277	0.7%
29	D, D	356	0.7%
30	AN, BN	352	0.6%
31	BN, D	395	0.7%
32	AN, W	379	0.9%
33	W, W	396	1.4%
34	D, C	326	0.7%
35	C, C	412	0.7%
36	D, BN	384	0.6%
37	BN, AN	398	0.7%
38	W, W	421	1.3%
39	BN, D	388	0.8%
40	D, C	368	0.5%
41	C, C	458	0.5%
42	C, C	91	0.1%
<b>Average</b>		<b>302</b>	<b>0.7%</b>
<b>Maximum</b>		<b>458</b>	<b>1.4%</b>
<b>Minimum</b>		<b>91</b>	<b>0.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-248. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 17 (SR17) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	170	0.8%
2	W, W	156	0.3%
3	C, C	162	0.1%
4	C, C	34	0.0%
5	AN, W	255	0.2%
6	BN, AN	182	2.4%
7	AN, W	178	-0.5%
8	D, D	248	2.1%
9	W, W	230	0.9%
10	W, W	271	-0.6%
11	W, AN	217	-0.2%
12	D, D	315	-3.9%
13	W, W	298	-2.2%
14	D, D	313	4.9%
15	C, C	155	0.3%
16	D, C	44	0.1%
17	C, C	19	0.0%
18	C, C	14	0.0%
19	C, C	7	0.0%
20	AN, W	247	0.2%
21	C, C	250	0.2%
22	W, W	333	0.5%
23	W, W	384	1.1%
24	W, W	455	-3.0%
25	W, W	376	-16.5%
26	W, AN	427	-2.3%
27	AN, AN	416	2.4%
28	D, D	279	0.5%
29	D, D	220	0.3%
30	AN, BN	201	0.2%
31	BN, D	204	0.2%
32	AN, W	362	0.5%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
33	W, W	399	1.4%
34	D, C	565	0.9%
35	C, C	298	0.4%
36	D, BN	281	0.3%
37	BN, AN	491	0.4%
38	W, W	735	1.0%
39	BN, D	511	1.0%
40	D, C	245	0.2%
41	C, C	198	0.1%
42	C, C	5	0.0%
<b>Average</b>		<b>265</b>	<b>-0.1%</b>
<b>Maximum</b>		<b>735</b>	<b>4.9%</b>
<b>Minimum</b>		<b>5</b>	<b>-16.5%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-249. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 18 (SR18) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	-2,216	4.0%
2	W, W	-1,821	2.5%
3	C, C	-916	2.8%
4	C, C	-332	-0.8%
5	AN, W	-624	-0.5%
6	BN, AN	-2,545	1.2%
7	AN, W	-1,578	0.7%
8	D, D	-1,677	0.6%
9	W, W	-1,210	0.4%
10	W, W	-1,460	0.1%
11	W, AN	-1,946	0.2%
12	D, D	-4,589	0.7%
13	W, W	-2,979	0.4%
14	D, D	-2,654	0.4%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
15	C, C	-2,013	0.5%
16	D, C	-1,627	1.0%
17	C, C	-1,036	17.5%
18	C, C	-572	-1.1%
19	C, C	-288	-0.4%
20	AN, W	-132	-0.1%
21	C, C	-240	-2.8%
22	W, W	-938	-3.1%
23	W, W	-1,238	0.4%
24	W, W	-18,586	8.3%
25	W, W	-9,639	1.9%
26	W, AN	-6,552	0.8%
27	AN, AN	-6,619	1.2%
28	D, D	-5,902	1.3%
29	D, D	-5,604	2.7%
30	AN, BN	-5,392	7.3%
31	BN, D	-3,771	10.6%
32	AN, W	-4,500	6.5%
33	W, W	-5,106	2.7%
34	D, C	-4,346	2.7%
35	C, C	-2,152	-4.3%
36	D, BN	-1,046	-1.4%
37	BN, AN	-1,161	-1.4%
38	W, W	-5,170	2.2%
39	BN, D	-4,064	1.5%
40	D, C	-2,527	7.3%
41	C, C	-626	-1.0%
42	C, C	-450	-0.5%
<b>Average</b>		<b>-3,044</b>	<b>1.7%</b>
<b>Maximum</b>		<b>-132</b>	<b>17.5%</b>
<b>Minimum</b>		<b>-18,586</b>	<b>-4.3%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-250. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 19 (SR19) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	0	0.0%
3	C, C	0	0.0%
4	C, C	0	0.0%
5	AN, W	0	0.0%
6	BN, AN	0	0.0%
7	AN, W	0	0.0%
8	D, D	0	0.0%
9	W, W	0	0.0%
10	W, W	0	0.0%
11	W, AN	-1	0.0%
12	D, D	-1	-0.1%
13	W, W	-1	0.0%
14	D, D	0	0.0%
15	C, C	0	0.0%
16	D, C	0	0.0%
17	C, C	0	0.0%
18	C, C	0	0.0%
19	C, C	0	0.0%
20	AN, W	0	0.0%
21	C, C	0	0.0%
22	W, W	1	0.0%
23	W, W	1	-0.2%
24	W, W	2	0.0%
25	W, W	-3	0.0%
26	W, AN	-3	0.0%
27	AN, AN	-1	-0.5%
28	D, D	0	0.0%
29	D, D	0	0.0%
30	AN, BN	0	0.0%
31	BN, D	0	0.0%
32	AN, W	-1	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
33	W, W	-1	0.0%
34	D, C	-1	0.0%
35	C, C	0	0.0%
36	D, BN	0	0.0%
37	BN, AN	0	0.0%
38	W, W	-1	0.0%
39	BN, D	-1	0.1%
40	D, C	0	0.0%
41	C, C	0	0.0%
42	C, C	0	0.0%
<b>Average</b>		<b>0</b>	<b>0.0%</b>
<b>Maximum</b>		<b>2</b>	<b>0.1%</b>
<b>Minimum</b>		<b>-3</b>	<b>-0.5%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-251. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 20 (SR20) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	0	0.0%
3	C, C	0	0.0%
4	C, C	0	0.0%
5	AN, W	0	0.0%
6	BN, AN	0	0.0%
7	AN, W	0	0.0%
8	D, D	0	0.0%
9	W, W	0	0.0%
10	W, W	0	0.0%
11	W, AN	0	0.0%
12	D, D	0	0.0%
13	W, W	0	0.0%
14	D, D	0	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
15	C, C	0	0.0%
16	D, C	0	0.0%
17	C, C	0	0.0%
18	C, C	0	0.0%
19	C, C	0	0.0%
20	AN, W	0	0.0%
21	C, C	0	0.0%
22	W, W	0	0.0%
23	W, W	0	0.0%
24	W, W	0	0.0%
25	W, W	0	0.0%
26	W, AN	0	0.0%
27	AN, AN	0	0.0%
28	D, D	1	0.0%
29	D, D	1	0.0%
30	AN, BN	0	0.0%
31	BN, D	0	0.0%
32	AN, W	0	0.0%
33	W, W	1	0.0%
34	D, C	0	0.0%
35	C, C	0	0.0%
36	D, BN	0	0.0%
37	BN, AN	0	0.0%
38	W, W	0	0.0%
39	BN, D	0	0.0%
40	D, C	0	0.0%
41	C, C	0	0.0%
42	C, C	0	0.0%
<b>Average</b>		<b>0</b>	<b>0.0%</b>
<b>Maximum</b>		<b>1</b>	<b>0.0%</b>
<b>Minimum</b>		<b>0</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-252. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 21 (SR21) for Alternative 2 Without TUCP Without VA wTUCP Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	0	0.0%
3	C, C	0	0.0%
4	C, C	0	0.0%
5	AN, W	0	0.0%
6	BN, AN	0	0.0%
7	AN, W	0	0.0%
8	D, D	0	0.0%
9	W, W	0	0.0%
10	W, W	0	0.0%
11	W, AN	0	0.0%
12	D, D	0	0.0%
13	W, W	-1	0.0%
14	D, D	0	0.0%
15	C, C	0	0.0%
16	D, C	0	0.0%
17	C, C	0	0.0%
18	C, C	0	0.0%
19	C, C	0	0.0%
20	AN, W	0	0.0%
21	C, C	0	0.0%
22	W, W	0	0.0%
23	W, W	0	0.0%
24	W, W	0	0.0%
25	W, W	-1	0.0%
26	W, AN	0	0.0%
27	AN, AN	0	0.0%
28	D, D	0	0.0%
29	D, D	0	0.0%
30	AN, BN	0	0.0%
31	BN, D	0	0.0%
32	AN, W	0	0.0%
33	W, W	-1	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v1 minus NAA (TAF)	Alt2v1 minus NAA (% Difference)
34	D, C	0	0.0%
35	C, C	0	0.0%
36	D, BN	0	0.0%
37	BN, AN	0	0.0%
38	W, W	0	0.0%
39	BN, D	0	0.0%
40	D, C	0	0.0%
41	C, C	0	0.0%
42	C, C	0	0.0%
<b>Average</b>		<b>0</b>	<b>0.0%</b>
<b>Maximum</b>		<b>0</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-1</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

### I-1.2.5 Changes in Groundwater-Surface Water Interaction Flow, Alternative 2 without TUCP Delta VA Compared to No Action Alternative

Table I.1-253 through Table I.1-273 provide the annual simulated groundwater-surface water interaction flow through the model simulation period for each of the 21 model subregions for Alternative 2 without TUCP Delta VA compared to the No Action Alternative.

Table I.1-253. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 1 (SR1) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	881	-0.3%
2	W, W	-277	0.1%
3	C, C	-941	0.3%
4	C, C	15,780	-6.1%
5	AN, W	8,216	-3.6%
6	BN, AN	2,474	-1.0%
7	AN, W	786	-0.3%
8	D, D	507	-0.2%
9	W, W	1,262	-0.5%
10	W, W	-1,012	0.3%
11	W, AN	-672	0.2%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
12	D, D	-163	0.1%
13	W, W	920	-0.3%
14	D, D	732	-0.3%
15	C, C	-214	0.1%
16	D, C	1,674	-0.7%
17	C, C	2,137	-0.9%
18	C, C	10,985	-5.4%
19	C, C	22,173	-11.5%
20	AN, W	-606	0.3%
21	C, C	13	0.0%
22	W, W	2,494	-1.1%
23	W, W	349	-0.1%
24	W, W	2,920	-1.0%
25	W, W	642	-0.2%
26	W, AN	-1,230	0.4%
27	AN, AN	1,169	-0.4%
28	D, D	2,130	-0.7%
29	D, D	702	-0.3%
30	AN, BN	-334	0.1%
31	BN, D	44	0.0%
32	AN, W	1,126	-0.4%
33	W, W	746	-0.3%
34	D, C	-4,069	1.3%
35	C, C	3,291	-1.1%
36	D, BN	-142	0.1%
37	BN, AN	-64	0.0%
38	W, W	240	-0.1%
39	BN, D	-334	0.1%
40	D, C	804	-0.3%
41	C, C	10,229	-4.3%
42	C, C	7,308	-3.4%
<b>Average</b>		<b>2,207</b>	<b>-1.0%</b>
<b>Maximum</b>		<b>22,173</b>	<b>1.3%</b>
<b>Minimum</b>		<b>-4,069</b>	<b>-11.5%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-254. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 2 (SR2) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	2,274	2.4%
2	W, W	-107	-0.2%
3	C, C	-412	-3.2%
4	C, C	7,882	-64.4%
5	AN, W	-725	-0.2%
6	BN, AN	5,316	3.9%
7	AN, W	3,147	1.7%
8	D, D	2,313	1.9%
9	W, W	4,339	3.0%
10	W, W	-232	-1.5%
11	W, AN	-770	2.5%
12	D, D	22	0.1%
13	W, W	2,787	4.3%
14	D, D	2,093	3.1%
15	C, C	2,913	2.1%
16	D, C	9,350	4.7%
17	C, C	5,922	5.2%
18	C, C	175	0.1%
19	C, C	20,245	8.0%
20	AN, W	-3,453	-1.0%
21	C, C	906	1.0%
22	W, W	13,418	4.9%
23	W, W	5,450	3.6%
24	W, W	6,865	8.6%
25	W, W	1,701	2.1%
26	W, AN	-2,391	-74.4%
27	AN, AN	2,553	5.4%
28	D, D	3,768	11.1%
29	D, D	2,997	2.6%
30	AN, BN	618	0.4%
31	BN, D	160	0.2%
32	AN, W	2,026	2.6%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
33	W, W	1,388	3.8%
34	D, C	-6,400	-27.8%
35	C, C	6,056	6.9%
36	D, BN	1,488	1.2%
37	BN, AN	-394	-0.2%
38	W, W	2,293	1.4%
39	BN, D	-251	-0.4%
40	D, C	1,418	1.1%
41	C, C	499	0.4%
42	C, C	8,555	3.9%
<b>Average</b>		<b>2,757</b>	<b>-1.6%</b>
<b>Maximum</b>		<b>20,245</b>	<b>11.1%</b>
<b>Minimum</b>		<b>-6,400</b>	<b>-74.4%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-255. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 3 (SR3) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	-199	0.2%
2	W, W	-145	0.2%
3	C, C	422	-0.5%
4	C, C	12,665	-19.3%
5	AN, W	12,939	-26.5%
6	BN, AN	4,693	-6.7%
7	AN, W	3,028	-4.1%
8	D, D	2,102	-2.7%
9	W, W	1,986	-2.3%
10	W, W	1,470	-1.4%
11	W, AN	1,123	-1.0%
12	D, D	881	-0.9%
13	W, W	1,146	-1.3%
14	D, D	1,426	-1.7%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
15	C, C	3,176	-4.0%
16	D, C	4,698	-6.7%
17	C, C	3,254	-4.8%
18	C, C	12,819	-25.8%
19	C, C	14,769	-37.2%
20	AN, W	3,846	-8.6%
21	C, C	4,337	-6.6%
22	W, W	7,427	-12.9%
23	W, W	5,122	-6.6%
24	W, W	4,003	-4.6%
25	W, W	3,199	-3.6%
26	W, AN	2,774	-2.7%
27	AN, AN	2,668	-2.9%
28	D, D	2,453	-2.8%
29	D, D	2,235	-2.6%
30	AN, BN	1,304	-1.5%
31	BN, D	986	-1.1%
32	AN, W	493	-0.5%
33	W, W	478	-0.5%
34	D, C	230	-0.2%
35	C, C	994	-1.1%
36	D, BN	1,121	-1.5%
37	BN, AN	-336	0.5%
38	W, W	186	-0.2%
39	BN, D	211	-0.2%
40	D, C	479	-0.6%
41	C, C	15,620	-22.2%
42	C, C	13,964	-28.8%
<b>Average</b>		<b>3,715</b>	<b>-6.2%</b>
<b>Maximum</b>		<b>15,620</b>	<b>0.5%</b>
<b>Minimum</b>		<b>-336</b>	<b>-37.2%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-256. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 4 (SR4) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	-1,528	0.4%
2	W, W	-6,190	1.5%
3	C, C	-7,806	2.2%
4	C, C	49,170	-16.9%
5	AN, W	24,489	-7.9%
6	BN, AN	11,086	-2.9%
7	AN, W	1,609	-0.4%
8	D, D	-1,122	0.3%
9	W, W	5,078	-1.1%
10	W, W	-728	0.2%
11	W, AN	-5,365	1.2%
12	D, D	-4,206	1.1%
13	W, W	187	0.0%
14	D, D	-1,395	0.4%
15	C, C	-2,323	0.6%
16	D, C	4,542	-1.4%
17	C, C	4,039	-1.1%
18	C, C	32,073	-10.1%
19	C, C	71,628	-24.9%
20	AN, W	-6,195	1.7%
21	C, C	416	-0.1%
22	W, W	11,000	-2.9%
23	W, W	504	-0.1%
24	W, W	7,676	-2.0%
25	W, W	727	-0.2%
26	W, AN	-7,535	1.8%
27	AN, AN	4,116	-1.0%
28	D, D	3,701	-0.9%
29	D, D	-38	0.0%
30	AN, BN	-3,006	0.8%
31	BN, D	-6,227	1.6%
32	AN, W	1,895	-0.4%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
33	W, W	-2,179	0.5%
34	D, C	-17,796	4.7%
35	C, C	4,840	-1.2%
36	D, BN	-4,542	1.2%
37	BN, AN	-4,392	1.2%
38	W, W	-1,718	0.4%
39	BN, D	-6,660	1.8%
40	D, C	-2,312	0.6%
41	C, C	36,025	-10.5%
42	C, C	43,911	-14.5%
<b>Average</b>		<b>5,368</b>	<b>-1.8%</b>
<b>Maximum</b>		<b>71,628</b>	<b>4.7%</b>
<b>Minimum</b>		<b>-17,796</b>	<b>-24.9%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-257. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 5 (SR5) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	-1,597	0.4%
2	W, W	-2,915	0.7%
3	C, C	4,269	-1.1%
4	C, C	76	0.0%
5	AN, W	16,838	-10.5%
6	BN, AN	-5,301	1.6%
7	AN, W	7,084	-1.9%
8	D, D	1,494	-0.4%
9	W, W	-362	0.1%
10	W, W	1,975	-0.3%
11	W, AN	-2,814	0.6%
12	D, D	5,632	-1.3%
13	W, W	-3,822	0.9%
14	D, D	-112	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
15	C, C	2,117	-0.7%
16	D, C	11,687	-4.2%
17	C, C	-7,772	2.3%
18	C, C	8,193	-3.4%
19	C, C	5,985	-2.7%
20	AN, W	17,994	-6.8%
21	C, C	5,406	-1.6%
22	W, W	8,498	-2.5%
23	W, W	4,681	-1.2%
24	W, W	-14	0.0%
25	W, W	100	0.0%
26	W, AN	210	0.0%
27	AN, AN	-917	0.2%
28	D, D	-1,385	0.3%
29	D, D	10,633	-2.8%
30	AN, BN	-10,246	3.0%
31	BN, D	-1,579	0.4%
32	AN, W	-4,745	1.1%
33	W, W	1,520	-0.3%
34	D, C	12,524	-3.0%
35	C, C	-6,408	1.6%
36	D, BN	3,568	-1.2%
37	BN, AN	-4,446	1.4%
38	W, W	-3,984	1.0%
39	BN, D	-2,528	0.7%
40	D, C	13,468	-3.6%
41	C, C	-6,568	2.3%
42	C, C	4,418	-2.1%
<b>Average</b>		<b>1,925</b>	<b>-0.8%</b>
<b>Maximum</b>		<b>17,994</b>	<b>3.0%</b>
<b>Minimum</b>		<b>-10,246</b>	<b>-10.5%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-258. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 6 (SR6) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	-2,122	-3.8%
2	W, W	-1,671	-2.2%
3	C, C	-707	-0.6%
4	C, C	-3,660	-2.6%
5	AN, W	-4,560	-1.9%
6	BN, AN	-2,141	-1.4%
7	AN, W	67	0.1%
8	D, D	-2,501	-1.7%
9	W, W	88	0.1%
10	W, W	-1,004	4.7%
11	W, AN	-2,591	-9.1%
12	D, D	-186	-0.3%
13	W, W	-839	-1.8%
14	D, D	-1,379	-1.3%
15	C, C	-2,352	-1.8%
16	D, C	-347	-0.2%
17	C, C	-2,011	-1.6%
18	C, C	-7,451	-4.2%
19	C, C	-795	-0.4%
20	AN, W	-6,608	-2.6%
21	C, C	-2,256	-1.4%
22	W, W	-1,555	-0.8%
23	W, W	-1,896	-1.4%
24	W, W	-1,090	-1.1%
25	W, W	-1,686	-2.9%
26	W, AN	-3,106	-5.4%
27	AN, AN	-2,098	-2.6%
28	D, D	-1,769	-1.9%
29	D, D	-761	-0.7%
30	AN, BN	-4,058	-4.0%
31	BN, D	-2,517	-2.6%
32	AN, W	-1,465	-2.2%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
33	W, W	-1,316	-3.2%
34	D, C	-2,348	-2.4%
35	C, C	-1,658	-1.7%
36	D, BN	5,370	4.4%
37	BN, AN	-12,881	-9.2%
38	W, W	-6,131	-7.6%
39	BN, D	-4,653	-4.0%
40	D, C	-3,557	-2.3%
41	C, C	-6,981	-5.1%
42	C, C	-2,922	-1.3%
<b>Average</b>		<b>-2,479</b>	<b>-2.2%</b>
<b>Maximum</b>		<b>5,370</b>	<b>4.7%</b>
<b>Minimum</b>		<b>-12,881</b>	<b>-9.2%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-259. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 7 (SR7) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	-480	3.3%
2	W, W	-645	2.6%
3	C, C	1,446	-8.2%
4	C, C	-5,358	-17.3%
5	AN, W	-1,241	-2.7%
6	BN, AN	-2,500	-101.6%
7	AN, W	837	-10.6%
8	D, D	373	5.2%
9	W, W	-390	-9.2%
10	W, W	-31	0.1%
11	W, AN	-1,768	5.4%
12	D, D	1,175	-3.7%
13	W, W	-193	0.5%
14	D, D	-324	2.7%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
15	C, C	-240	22.8%
16	D, C	2,785	15.3%
17	C, C	-2,362	115.5%
18	C, C	-6,325	-27.9%
19	C, C	1,417	5.4%
20	AN, W	-1,369	-5.0%
21	C, C	-1,337	-18.4%
22	W, W	-1,738	-7.2%
23	W, W	-1,380	-8.0%
24	W, W	7	-0.1%
25	W, W	-347	3.9%
26	W, AN	-276	1.9%
27	AN, AN	-1,541	14.4%
28	D, D	765	-4.6%
29	D, D	1,868	-3,210.3%
30	AN, BN	-3,002	-20.5%
31	BN, D	-363	-7.8%
32	AN, W	-595	29.5%
33	W, W	-624	13.4%
34	D, C	2,143	-81.2%
35	C, C	-3,331	-125.9%
36	D, BN	473	1.9%
37	BN, AN	-513	-2.8%
38	W, W	-985	-11.2%
39	BN, D	-483	-4.9%
40	D, C	2,580	58.6%
41	C, C	-6,646	-22.6%
42	C, C	3,207	7.7%
<b>Average</b>		<b>-650</b>	<b>-81.0%</b>
<b>Maximum</b>		<b>3,207</b>	<b>115.5%</b>
<b>Minimum</b>		<b>-6,646</b>	<b>-3,210.3%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-260. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 8 (SR8) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	38	0.0%
2	W, W	-144	-0.1%
3	C, C	406	0.2%
4	C, C	-2,054	-1.0%
5	AN, W	505	0.2%
6	BN, AN	-332	-0.1%
7	AN, W	-538	-0.2%
8	D, D	740	0.3%
9	W, W	75	0.0%
10	W, W	15	0.0%
11	W, AN	-519	-0.3%
12	D, D	150	0.1%
13	W, W	-5	0.0%
14	D, D	-81	0.0%
15	C, C	-142	-0.1%
16	D, C	597	0.2%
17	C, C	66	0.0%
18	C, C	-2,080	-0.9%
19	C, C	1,566	0.6%
20	AN, W	296	0.1%
21	C, C	-286	-0.1%
22	W, W	-359	-0.1%
23	W, W	-698	-0.2%
24	W, W	380	0.1%
25	W, W	65	0.0%
26	W, AN	-240	-0.1%
27	AN, AN	-430	-0.2%
28	D, D	701	0.3%
29	D, D	635	0.3%
30	AN, BN	-640	-0.3%
31	BN, D	29	0.0%
32	AN, W	-140	-0.1%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
33	W, W	12	0.0%
34	D, C	769	0.3%
35	C, C	-1,128	-0.5%
36	D, BN	275	0.1%
37	BN, AN	394	0.2%
38	W, W	-4	0.0%
39	BN, D	309	0.1%
40	D, C	504	0.2%
41	C, C	-1,357	-0.6%
42	C, C	3,049	1.2%
<b>Average</b>		<b>10</b>	<b>0.0%</b>
<b>Maximum</b>		<b>3,049</b>	<b>1.2%</b>
<b>Minimum</b>		<b>-2,080</b>	<b>-1.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-261. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 9 (SR9) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	3,036	-0.9%
2	W, W	-388	0.1%
3	C, C	4,804	-1.0%
4	C, C	-5,741	1.6%
5	AN, W	570	-0.3%
6	BN, AN	-3,484	1.0%
7	AN, W	7,546	-2.7%
8	D, D	3,742	-1.0%
9	W, W	2,514	-0.9%
10	W, W	1,411	-0.4%
11	W, AN	-1,914	0.4%
12	D, D	7,114	-1.5%
13	W, W	-108	0.0%
14	D, D	2,308	-0.5%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
15	C, C	-2,268	0.6%
16	D, C	10,062	-3.2%
17	C, C	4,679	-1.2%
18	C, C	-5,985	1.8%
19	C, C	24,077	-8.0%
20	AN, W	-20,700	10.0%
21	C, C	-109	0.0%
22	W, W	-3,211	1.6%
23	W, W	-2,606	0.9%
24	W, W	2,386	-0.6%
25	W, W	363	-0.1%
26	W, AN	-3,502	0.8%
27	AN, AN	621	-0.1%
28	D, D	3,161	-0.7%
29	D, D	7,979	-2.1%
30	AN, BN	-6,198	1.8%
31	BN, D	233	-0.1%
32	AN, W	2,635	-0.7%
33	W, W	100	0.0%
34	D, C	3,860	-0.8%
35	C, C	-3,239	0.7%
36	D, BN	4,435	-1.2%
37	BN, AN	4,490	-1.3%
38	W, W	-534	0.2%
39	BN, D	109	0.0%
40	D, C	11,327	-3.0%
41	C, C	-8,154	2.0%
42	C, C	18,951	-5.6%
<b>Average</b>		<b>1,533</b>	<b>-0.3%</b>
<b>Maximum</b>		<b>24,077</b>	<b>10.0%</b>
<b>Minimum</b>		<b>-20,700</b>	<b>-8.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-262. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 10 (SR10) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	6,769	-7.8%
2	W, W	6,372	-7.1%
3	C, C	6,460	-7.2%
4	C, C	-16,222	72.3%
5	AN, W	-7,024	-41.7%
6	BN, AN	1,699	-2.5%
7	AN, W	4,790	-11.1%
8	D, D	5,086	-6.1%
9	W, W	7,595	-10.8%
10	W, W	5,426	-6.4%
11	W, AN	4,749	-4.0%
12	D, D	3,425	-2.8%
13	W, W	6,226	-7.6%
14	D, D	4,139	-3.6%
15	C, C	4,509	-4.4%
16	D, C	5,674	-7.4%
17	C, C	6,359	-10.6%
18	C, C	3,326	60.5%
19	C, C	2,718	22.9%
20	AN, W	3,708	19.0%
21	C, C	2,026	-6.3%
22	W, W	5,072	84.8%
23	W, W	5,426	-9.8%
24	W, W	4,148	-5.8%
25	W, W	2,040	-2.7%
26	W, AN	1,933	-1.5%
27	AN, AN	2,743	-2.7%
28	D, D	3,916	-3.6%
29	D, D	4,846	-4.9%
30	AN, BN	6,708	-7.2%
31	BN, D	6,819	-6.9%
32	AN, W	9,862	-9.6%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
33	W, W	6,244	-5.4%
34	D, C	5,287	-4.4%
35	C, C	5,441	-6.2%
36	D, BN	6,492	-7.7%
37	BN, AN	8,152	-11.3%
38	W, W	11,618	-10.3%
39	BN, D	7,920	-5.6%
40	D, C	6,198	-5.4%
41	C, C	-8,779	18.5%
42	C, C	-5,259	62.7%
<b>Average</b>		<b>3,920</b>	<b>2.0%</b>
<b>Maximum</b>		<b>11,618</b>	<b>84.8%</b>
<b>Minimum</b>		<b>-16,222</b>	<b>-41.7%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-263. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 11 (SR11) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	1,337	-3.2%
2	W, W	1,479	-3.2%
3	C, C	1,577	-7.9%
4	C, C	20,106	21.1%
5	AN, W	-10,577	-14.7%
6	BN, AN	1,489	4.7%
7	AN, W	955	12.7%
8	D, D	2,111	-10.7%
9	W, W	1,045	-5.3%
10	W, W	964	-3.0%
11	W, AN	1,393	-1.4%
12	D, D	856	-1.2%
13	W, W	-784	1.5%
14	D, D	3,091	-7.9%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
15	C, C	1,676	7.8%
16	D, C	1,530	2.7%
17	C, C	1,045	1.6%
18	C, C	2,289	2.8%
19	C, C	1,217	1.5%
20	AN, W	-1,526	-3.5%
21	C, C	-2,882	-6.3%
22	W, W	-1,113	-2.9%
23	W, W	585	-5.7%
24	W, W	-3,073	14.6%
25	W, W	7,059	-15.8%
26	W, AN	2,476	-2.4%
27	AN, AN	21	0.0%
28	D, D	2,227	-4.7%
29	D, D	1,800	-5.1%
30	AN, BN	2,185	-6.4%
31	BN, D	2,344	-6.4%
32	AN, W	6,976	-13.8%
33	W, W	-1,286	2.0%
34	D, C	2,883	-4.0%
35	C, C	2,783	-59.6%
36	D, BN	1,561	8.6%
37	BN, AN	3,296	-44.8%
38	W, W	2,921	641.4%
39	BN, D	2,632	-3.1%
40	D, C	2,616	-19.4%
41	C, C	19,342	31.3%
42	C, C	-11,306	-12.4%
<b>Average</b>		<b>1,793</b>	<b>11.4%</b>
<b>Maximum</b>		<b>20,106</b>	<b>641.4%</b>
<b>Minimum</b>		<b>-11,306</b>	<b>-59.6%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-264. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 12 (SR12) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	2,272	2.6%
2	W, W	2,337	3.0%
3	C, C	2,442	2.4%
4	C, C	1,921	1.1%
5	AN, W	1,586	0.9%
6	BN, AN	2,293	1.4%
7	AN, W	2,434	1.8%
8	D, D	2,754	2.4%
9	W, W	2,886	3.0%
10	W, W	2,460	3.1%
11	W, AN	2,171	3.5%
12	D, D	1,949	2.6%
13	W, W	2,067	2.6%
14	D, D	2,160	2.3%
15	C, C	1,990	1.4%
16	D, C	2,036	1.0%
17	C, C	1,644	0.8%
18	C, C	2,905	1.2%
19	C, C	1,794	0.8%
20	AN, W	160	0.1%
21	C, C	429	0.2%
22	W, W	2,141	1.2%
23	W, W	2,259	1.9%
24	W, W	1,899	1.6%
25	W, W	1,587	2.0%
26	W, AN	1,319	2.5%
27	AN, AN	1,423	1.7%
28	D, D	1,826	2.1%
29	D, D	2,284	2.3%
30	AN, BN	2,786	2.9%
31	BN, D	3,080	3.2%
32	AN, W	3,263	4.6%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
33	W, W	2,921	5.1%
34	D, C	2,624	3.7%
35	C, C	3,070	2.3%
36	D, BN	2,480	1.6%
37	BN, AN	4,003	3.7%
38	W, W	3,951	4.0%
39	BN, D	3,261	5.5%
40	D, C	3,126	2.6%
41	C, C	2,483	1.3%
42	C, C	2,028	0.9%
<b>Average</b>		<b>2,298</b>	<b>2.3%</b>
<b>Maximum</b>		<b>4,003</b>	<b>5.5%</b>
<b>Minimum</b>		<b>160</b>	<b>0.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-265. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 13 (SR13) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	4,782	0.8%
2	W, W	5,039	0.8%
3	C, C	4,822	0.8%
4	C, C	-7,231	-1.1%
5	AN, W	-6,817	-0.8%
6	BN, AN	935	0.1%
7	AN, W	3,460	0.5%
8	D, D	4,344	0.7%
9	W, W	4,550	0.7%
10	W, W	4,677	0.6%
11	W, AN	5,377	0.9%
12	D, D	5,191	0.9%
13	W, W	4,401	0.7%
14	D, D	5,085	0.9%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
15	C, C	5,144	0.9%
16	D, C	5,108	0.8%
17	C, C	4,971	0.8%
18	C, C	3,779	0.5%
19	C, C	4,120	0.6%
20	AN, W	4,506	0.6%
21	C, C	5,355	0.8%
22	W, W	5,531	0.7%
23	W, W	5,735	0.8%
24	W, W	5,698	0.7%
25	W, W	5,523	0.8%
26	W, AN	5,181	0.9%
27	AN, AN	5,198	0.8%
28	D, D	5,215	0.8%
29	D, D	5,047	0.8%
30	AN, BN	5,588	0.9%
31	BN, D	5,706	1.0%
32	AN, W	5,954	1.0%
33	W, W	6,078	0.9%
34	D, C	5,708	0.9%
35	C, C	5,823	0.9%
36	D, BN	6,067	1.0%
37	BN, AN	6,644	1.1%
38	W, W	6,891	0.9%
39	BN, D	6,733	1.0%
40	D, C	6,771	1.0%
41	C, C	-2,528	-0.4%
42	C, C	-1,995	-0.3%
<b>Average</b>		<b>4,242</b>	<b>0.7%</b>
<b>Maximum</b>		<b>6,891</b>	<b>1.1%</b>
<b>Minimum</b>		<b>-7,231</b>	<b>-1.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-266. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 14 (SR14) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	-39	-0.1%
2	W, W	-533	-1.0%
3	C, C	87	0.2%
4	C, C	-301	-0.7%
5	AN, W	-55	0.0%
6	BN, AN	113	0.2%
7	AN, W	-201	-0.3%
8	D, D	12	0.0%
9	W, W	19	0.0%
10	W, W	-199	-0.1%
11	W, AN	233	0.4%
12	D, D	-78	-0.2%
13	W, W	-236	-0.3%
14	D, D	-205	-0.4%
15	C, C	-111	-0.3%
16	D, C	20	0.0%
17	C, C	-155	-0.4%
18	C, C	-159	-0.3%
19	C, C	-61	-0.1%
20	AN, W	-42	0.0%
21	C, C	-174	-0.4%
22	W, W	-99	-0.1%
23	W, W	7	0.0%
24	W, W	147	0.2%
25	W, W	22	0.0%
26	W, AN	26	0.1%
27	AN, AN	18	0.0%
28	D, D	26	0.1%
29	D, D	4	0.0%
30	AN, BN	-41	-0.1%
31	BN, D	-38	-0.1%
32	AN, W	-28	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
33	W, W	174	0.3%
34	D, C	-18	0.0%
35	C, C	-308	-0.6%
36	D, BN	-573	-1.3%
37	BN, AN	-341	-0.6%
38	W, W	-50	-0.1%
39	BN, D	30	0.1%
40	D, C	-189	-0.4%
41	C, C	-203	-0.5%
42	C, C	-58	-0.1%
<b>Average</b>		<b>-85</b>	<b>-0.2%</b>
<b>Maximum</b>		<b>233</b>	<b>0.4%</b>
<b>Minimum</b>		<b>-573</b>	<b>-1.3%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-267. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 15 (SR15) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	7,946	1.6%
2	W, W	9,389	2.4%
3	C, C	3,187	0.7%
4	C, C	3,946	0.9%
5	AN, W	7,077	0.7%
6	BN, AN	9,015	1.9%
7	AN, W	18,725	2.3%
8	D, D	10,907	2.7%
9	W, W	17,776	2.7%
10	W, W	19,960	3.7%
11	W, AN	13,054	3.4%
12	D, D	10,140	2.5%
13	W, W	17,794	3.1%
14	D, D	13,174	3.3%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
15	C, C	11,722	3.2%
16	D, C	13,808	3.4%
17	C, C	11,348	2.6%
18	C, C	9,836	2.1%
19	C, C	9,141	1.9%
20	AN, W	8,816	1.8%
21	C, C	9,585	1.9%
22	W, W	19,201	2.0%
23	W, W	14,539	2.1%
24	W, W	13,600	2.2%
25	W, W	13,437	2.6%
26	W, AN	8,896	2.5%
27	AN, AN	9,614	2.2%
28	D, D	11,605	2.8%
29	D, D	12,074	3.2%
30	AN, BN	12,033	3.0%
31	BN, D	12,018	3.0%
32	AN, W	12,490	2.0%
33	W, W	23,736	3.6%
34	D, C	12,171	2.9%
35	C, C	12,479	3.1%
36	D, BN	15,784	3.6%
37	BN, AN	18,733	2.5%
38	W, W	27,384	3.5%
39	BN, D	15,031	3.0%
40	D, C	13,417	3.3%
41	C, C	10,137	2.1%
42	C, C	7,330	1.5%
<b>Average</b>		<b>12,668</b>	<b>2.5%</b>
<b>Maximum</b>		<b>27,384</b>	<b>3.7%</b>
<b>Minimum</b>		<b>3,187</b>	<b>0.7%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-268. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 16 (SR16) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	612	1.8%
2	W, W	632	2.2%
3	C, C	584	1.2%
4	C, C	1,169	1.6%
5	AN, W	180	0.3%
6	BN, AN	619	1.5%
7	AN, W	666	1.8%
8	D, D	675	1.6%
9	W, W	746	2.0%
10	W, W	818	2.7%
11	W, AN	1,031	6.2%
12	D, D	1,033	3.8%
13	W, W	501	1.9%
14	D, D	791	2.9%
15	C, C	952	2.3%
16	D, C	882	1.6%
17	C, C	998	1.6%
18	C, C	1,051	1.4%
19	C, C	1,039	1.4%
20	AN, W	1,010	1.8%
21	C, C	1,056	1.9%
22	W, W	1,098	2.2%
23	W, W	1,161	2.7%
24	W, W	1,126	3.2%
25	W, W	1,161	3.7%
26	W, AN	1,165	4.7%
27	AN, AN	1,203	4.4%
28	D, D	1,181	2.8%
29	D, D	1,296	2.5%
30	AN, BN	1,398	2.4%
31	BN, D	1,408	2.6%
32	AN, W	1,399	3.4%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
33	W, W	1,410	5.0%
34	D, C	1,419	3.0%
35	C, C	1,324	2.2%
36	D, BN	1,435	2.3%
37	BN, AN	1,476	2.6%
38	W, W	1,497	4.5%
39	BN, D	1,492	3.1%
40	D, C	1,412	1.8%
41	C, C	1,420	1.5%
42	C, C	842	0.9%
<b>Average</b>		<b>1,056</b>	<b>2.5%</b>
<b>Maximum</b>		<b>1,497</b>	<b>6.2%</b>
<b>Minimum</b>		<b>180</b>	<b>0.3%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-269. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 17 (SR17) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	648	3.2%
2	W, W	609	1.3%
3	C, C	593	0.5%
4	C, C	91	0.1%
5	AN, W	840	0.8%
6	BN, AN	772	10.4%
7	AN, W	817	-2.4%
8	D, D	822	7.0%
9	W, W	839	3.3%
10	W, W	1,008	-2.1%
11	W, AN	965	-1.0%
12	D, D	1,032	-12.9%
13	W, W	1,148	-8.5%
14	D, D	1,151	17.9%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
15	C, C	895	1.6%
16	D, C	214	0.4%
17	C, C	42	0.1%
18	C, C	100	0.1%
19	C, C	18	0.0%
20	AN, W	934	0.8%
21	C, C	981	0.7%
22	W, W	1,182	1.7%
23	W, W	1,395	4.0%
24	W, W	1,432	-9.5%
25	W, W	1,339	-58.8%
26	W, AN	1,311	-7.0%
27	AN, AN	1,340	7.7%
28	D, D	1,198	2.1%
29	D, D	763	1.1%
30	AN, BN	946	1.2%
31	BN, D	766	0.8%
32	AN, W	1,602	2.2%
33	W, W	1,931	6.5%
34	D, C	1,992	3.1%
35	C, C	1,135	1.3%
36	D, BN	968	1.0%
37	BN, AN	1,897	1.4%
38	W, W	2,679	3.7%
39	BN, D	1,978	3.8%
40	D, C	944	0.8%
41	C, C	765	0.6%
42	C, C	20	0.0%
<b>Average</b>		<b>1,002</b>	<b>-0.3%</b>
<b>Maximum</b>		<b>2,679</b>	<b>17.9%</b>
<b>Minimum</b>		<b>18</b>	<b>-58.8%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-270. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 18 (SR18) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	-982	1.8%
2	W, W	-589	0.8%
3	C, C	-836	2.6%
4	C, C	-562	-1.4%
5	AN, W	-826	-0.6%
6	BN, AN	-3,359	1.6%
7	AN, W	-2,118	0.9%
8	D, D	-1,574	0.5%
9	W, W	-1,343	0.4%
10	W, W	241	0.0%
11	W, AN	3,540	-0.3%
12	D, D	2,945	-0.4%
13	W, W	-5,202	0.7%
14	D, D	-3,312	0.5%
15	C, C	-1,795	0.5%
16	D, C	-1,319	0.8%
17	C, C	-632	10.7%
18	C, C	-353	-0.7%
19	C, C	-141	-0.2%
20	AN, W	4	0.0%
21	C, C	298	3.5%
22	W, W	-660	-2.2%
23	W, W	75	0.0%
24	W, W	-15,918	7.1%
25	W, W	-6,419	1.3%
26	W, AN	-4,127	0.5%
27	AN, AN	-4,619	0.8%
28	D, D	-3,595	0.8%
29	D, D	-3,355	1.6%
30	AN, BN	-3,223	4.3%
31	BN, D	-1,569	4.4%
32	AN, W	-1,869	2.7%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
33	W, W	63	0.0%
34	D, C	197	-0.1%
35	C, C	390	0.8%
36	D, BN	447	0.6%
37	BN, AN	364	0.4%
38	W, W	-1,103	0.5%
39	BN, D	837	-0.3%
40	D, C	174	-0.5%
41	C, C	270	0.4%
42	C, C	262	0.3%
<b>Average</b>		<b>-1,459</b>	<b>1.1%</b>
<b>Maximum</b>		<b>3,540</b>	<b>10.7%</b>
<b>Minimum</b>		<b>-15,918</b>	<b>-2.2%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-271. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 19 (SR19) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	3	0.1%
2	W, W	1	0.0%
3	C, C	0	0.0%
4	C, C	0	0.0%
5	AN, W	1	0.0%
6	BN, AN	1	0.0%
7	AN, W	1	0.0%
8	D, D	0	0.0%
9	W, W	0	0.0%
10	W, W	1	0.0%
11	W, AN	-1	0.0%
12	D, D	-1	-0.1%
13	W, W	-3	0.0%
14	D, D	-2	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
15	C, C	0	0.0%
16	D, C	0	0.0%
17	C, C	0	0.0%
18	C, C	0	0.0%
19	C, C	0	0.0%
20	AN, W	0	0.0%
21	C, C	0	0.0%
22	W, W	0	0.0%
23	W, W	1	-0.1%
24	W, W	1	0.0%
25	W, W	-3	0.0%
26	W, AN	-4	0.0%
27	AN, AN	-3	-1.2%
28	D, D	-1	-0.1%
29	D, D	0	0.0%
30	AN, BN	0	0.0%
31	BN, D	0	0.0%
32	AN, W	-1	0.0%
33	W, W	-1	0.0%
34	D, C	0	0.0%
35	C, C	0	0.0%
36	D, BN	0	0.0%
37	BN, AN	0	0.0%
38	W, W	0	0.0%
39	BN, D	0	0.0%
40	D, C	0	0.0%
41	C, C	0	0.0%
42	C, C	0	0.0%
<b>Average</b>		<b>0</b>	<b>0.0%</b>
<b>Maximum</b>		<b>3</b>	<b>0.1%</b>
<b>Minimum</b>		<b>-4</b>	<b>-1.2%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-272. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 20 (SR20) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	0	0.0%
3	C, C	0	0.0%
4	C, C	0	0.0%
5	AN, W	0	0.0%
6	BN, AN	0	0.0%
7	AN, W	0	0.0%
8	D, D	0	0.0%
9	W, W	0	0.0%
10	W, W	0	0.0%
11	W, AN	0	0.0%
12	D, D	0	0.0%
13	W, W	0	0.0%
14	D, D	0	0.0%
15	C, C	0	0.0%
16	D, C	0	0.0%
17	C, C	0	0.0%
18	C, C	0	0.0%
19	C, C	0	0.0%
20	AN, W	0	0.0%
21	C, C	0	0.0%
22	W, W	0	0.0%
23	W, W	0	0.0%
24	W, W	0	0.0%
25	W, W	0	0.0%
26	W, AN	1	0.0%
27	AN, AN	0	0.0%
28	D, D	1	0.0%
29	D, D	1	0.0%
30	AN, BN	1	0.0%
31	BN, D	1	0.0%
32	AN, W	1	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
33	W, W	1	0.0%
34	D, C	1	0.0%
35	C, C	1	0.0%
36	D, BN	1	0.0%
37	BN, AN	0	0.0%
38	W, W	1	0.0%
39	BN, D	0	0.0%
40	D, C	1	0.0%
41	C, C	0	0.0%
42	C, C	1	0.0%
<b>Average</b>		<b>0</b>	<b>0.0%</b>
<b>Maximum</b>		<b>1</b>	<b>0.0%</b>
<b>Minimum</b>		<b>0</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-273. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 21 (SR21) for Alternative 2 Without TUCP Delta VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	0	0.0%
3	C, C	0	0.0%
4	C, C	0	0.0%
5	AN, W	0	0.0%
6	BN, AN	0	0.0%
7	AN, W	0	0.0%
8	D, D	0	0.0%
9	W, W	0	0.0%
10	W, W	1	0.0%
11	W, AN	0	0.0%
12	D, D	0	0.0%
13	W, W	0	0.0%
14	D, D	0	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v2 minus NAA (TAF)	Alt2v2 minus NAA (% Difference)
15	C, C	0	0.0%
16	D, C	0	0.0%
17	C, C	0	0.0%
18	C, C	0	0.0%
19	C, C	0	0.0%
20	AN, W	0	0.0%
21	C, C	0	0.0%
22	W, W	0	0.0%
23	W, W	0	0.0%
24	W, W	0	0.0%
25	W, W	1	0.0%
26	W, AN	1	0.0%
27	AN, AN	0	0.0%
28	D, D	0	0.0%
29	D, D	0	0.0%
30	AN, BN	0	0.0%
31	BN, D	-1	0.0%
32	AN, W	0	0.0%
33	W, W	1	0.0%
34	D, C	1	0.0%
35	C, C	0	0.0%
36	D, BN	0	0.0%
37	BN, AN	0	0.0%
38	W, W	0	0.0%
39	BN, D	0	0.0%
40	D, C	0	0.0%
41	C, C	0	0.0%
42	C, C	0	0.0%
<b>Average</b>		<b>0</b>	<b>0.0%</b>
<b>Maximum</b>		<b>1</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-1</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

**I-1.2.6 Changes in Groundwater-Surface Water Interaction Flow, Alternative 2 without TUCP Systemwide VA Compared to No Action Alternative**

Table I.1-274 through Table I.1-294 provide the annual simulated groundwater-surface water interaction flow through the model simulation period for each of the 21 model subregions for Alternative 2 without TUCP Systemwide VA compared to the No Action Alternative.

Table I.1-274. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 1 (SR1) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	882	-0.3%
2	W, W	-669	0.2%
3	C, C	-760	0.3%
4	C, C	15,646	-6.0%
5	AN, W	8,169	-3.6%
6	BN, AN	3,362	-1.3%
7	AN, W	-152	0.1%
8	D, D	465	-0.2%
9	W, W	1,485	-0.6%
10	W, W	-1,027	0.3%
11	W, AN	-186	0.1%
12	D, D	-552	0.2%
13	W, W	321	-0.1%
14	D, D	750	-0.3%
15	C, C	1,577	-0.6%
16	D, C	-26	0.0%
17	C, C	2,915	-1.2%
18	C, C	10,947	-5.4%
19	C, C	22,208	-11.5%
20	AN, W	-972	0.5%
21	C, C	161	-0.1%
22	W, W	2,158	-1.0%
23	W, W	235	-0.1%
24	W, W	2,636	-0.9%
25	W, W	690	-0.3%
26	W, AN	-1,341	0.4%
27	AN, AN	1,280	-0.4%
28	D, D	1,951	-0.7%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
29	D, D	345	-0.1%
30	AN, BN	-460	0.2%
31	BN, D	119	0.0%
32	AN, W	593	-0.2%
33	W, W	1,874	-0.6%
34	D, C	-3,968	1.3%
35	C, C	2,054	-0.7%
36	D, BN	592	-0.2%
37	BN, AN	-602	0.2%
38	W, W	354	-0.1%
39	BN, D	-594	0.2%
40	D, C	863	-0.3%
41	C, C	9,823	-4.1%
42	C, C	9,339	-4.4%
<b>Average</b>		<b>2,202</b>	<b>-1.0%</b>
<b>Maximum</b>		<b>22,208</b>	<b>1.3%</b>
<b>Minimum</b>		<b>-3,968</b>	<b>-11.5%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-275. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 2 (SR2) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	3,709	3.9%
2	W, W	-76	-0.2%
3	C, C	689	5.3%
4	C, C	7,968	-65.1%
5	AN, W	-247	-0.1%
6	BN, AN	7,728	5.7%
7	AN, W	3,061	1.7%
8	D, D	3,803	3.1%
9	W, W	6,011	4.2%
10	W, W	38	0.2%
11	W, AN	-21	0.1%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
12	D, D	-114	-0.4%
13	W, W	2,531	3.9%
14	D, D	2,771	4.1%
15	C, C	6,501	4.6%
16	D, C	7,540	3.8%
17	C, C	7,892	6.9%
18	C, C	925	0.5%
19	C, C	20,799	8.2%
20	AN, W	-3,203	-0.9%
21	C, C	2,062	2.3%
22	W, W	13,829	5.0%
23	W, W	5,868	3.8%
24	W, W	7,053	8.8%
25	W, W	2,146	2.6%
26	W, AN	-2,203	-68.6%
27	AN, AN	2,767	5.9%
28	D, D	4,189	12.3%
29	D, D	2,986	2.6%
30	AN, BN	593	0.4%
31	BN, D	1,138	1.5%
32	AN, W	2,424	3.2%
33	W, W	3,887	10.5%
34	D, C	-5,470	-23.8%
35	C, C	4,574	5.2%
36	D, BN	3,638	2.8%
37	BN, AN	-1,194	-0.6%
38	W, W	3,576	2.2%
39	BN, D	12	0.0%
40	D, C	2,438	1.9%
41	C, C	550	0.5%
42	C, C	11,719	5.4%
<b>Average</b>		<b>3,450</b>	<b>-0.6%</b>
<b>Maximum</b>		<b>20,799</b>	<b>12.3%</b>
<b>Minimum</b>		<b>-5,470</b>	<b>-68.6%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-276. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 3 (SR3) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	6,402	-6.6%
2	W, W	4,428	-4.7%
3	C, C	5,797	-6.7%
4	C, C	15,770	-24.0%
5	AN, W	16,820	-34.4%
6	BN, AN	11,889	-16.9%
7	AN, W	10,169	-13.9%
8	D, D	10,369	-13.5%
9	W, W	9,302	-10.7%
10	W, W	5,168	-5.0%
11	W, AN	4,009	-3.6%
12	D, D	4,934	-5.2%
13	W, W	7,031	-8.1%
14	D, D	5,964	-7.0%
15	C, C	8,987	-11.5%
16	D, C	8,868	-12.7%
17	C, C	9,156	-13.4%
18	C, C	15,609	-31.4%
19	C, C	17,050	-42.9%
20	AN, W	6,905	-15.4%
21	C, C	10,267	-15.5%
22	W, W	11,369	-19.7%
23	W, W	7,307	-9.5%
24	W, W	5,814	-6.7%
25	W, W	4,818	-5.5%
26	W, AN	4,223	-4.1%
27	AN, AN	5,351	-5.9%
28	D, D	8,343	-9.4%
29	D, D	8,754	-10.3%
30	AN, BN	8,069	-9.3%
31	BN, D	8,437	-9.2%
32	AN, W	8,725	-9.4%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
33	W, W	7,164	-7.1%
34	D, C	5,245	-5.3%
35	C, C	8,827	-10.1%
36	D, BN	8,644	-11.3%
37	BN, AN	6,409	-8.7%
38	W, W	6,222	-7.0%
39	BN, D	4,737	-5.3%
40	D, C	7,418	-8.8%
41	C, C	22,311	-31.7%
42	C, C	17,227	-35.5%
<b>Average</b>		<b>8,817</b>	<b>-12.7%</b>
<b>Maximum</b>		<b>22,311</b>	<b>-3.6%</b>
<b>Minimum</b>		<b>4,009</b>	<b>-42.9%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-277. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 4 (SR4) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	18,689	-4.4%
2	W, W	8,713	-2.1%
3	C, C	9,277	-2.6%
4	C, C	55,761	-19.2%
5	AN, W	38,043	-12.3%
6	BN, AN	38,993	-10.1%
7	AN, W	23,476	-5.7%
8	D, D	26,624	-7.8%
9	W, W	26,431	-5.9%
10	W, W	6,566	-1.4%
11	W, AN	1,305	-0.3%
12	D, D	7,818	-2.0%
13	W, W	16,132	-3.6%
14	D, D	11,619	-3.4%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
15	C, C	19,051	-5.1%
16	D, C	15,119	-4.6%
17	C, C	23,772	-6.3%
18	C, C	38,884	-12.3%
19	C, C	76,526	-26.6%
20	AN, W	4,749	-1.3%
21	C, C	19,892	-5.9%
22	W, W	22,366	-5.8%
23	W, W	5,431	-1.5%
24	W, W	10,856	-2.8%
25	W, W	4,286	-1.1%
26	W, AN	-4,754	1.1%
27	AN, AN	14,938	-3.8%
28	D, D	25,823	-6.5%
29	D, D	26,215	-6.6%
30	AN, BN	24,157	-6.2%
31	BN, D	24,323	-6.3%
32	AN, W	31,233	-7.2%
33	W, W	21,734	-5.1%
34	D, C	-105	0.0%
35	C, C	29,261	-7.4%
36	D, BN	27,898	-7.6%
37	BN, AN	22,791	-6.1%
38	W, W	19,066	-4.7%
39	BN, D	9,653	-2.6%
40	D, C	23,131	-6.2%
41	C, C	53,910	-15.7%
42	C, C	55,941	-18.5%
<b>Average</b>		<b>22,276</b>	<b>-6.3%</b>
<b>Maximum</b>		<b>76,526</b>	<b>1.1%</b>
<b>Minimum</b>		<b>-4,754</b>	<b>-26.6%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-278. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 5 (SR5) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	3,251	-0.8%
2	W, W	3,830	-0.9%
3	C, C	8,937	-2.3%
4	C, C	2,149	-0.9%
5	AN, W	19,103	-11.9%
6	BN, AN	348	-0.1%
7	AN, W	13,325	-3.5%
8	D, D	8,959	-2.5%
9	W, W	5,193	-1.2%
10	W, W	4,112	-0.7%
11	W, AN	-1,182	0.3%
12	D, D	10,406	-2.4%
13	W, W	1,518	-0.4%
14	D, D	4,698	-1.3%
15	C, C	4,104	-1.3%
16	D, C	20,904	-7.5%
17	C, C	-2,762	0.8%
18	C, C	12,081	-4.9%
19	C, C	9,855	-4.4%
20	AN, W	23,440	-8.8%
21	C, C	11,259	-3.3%
22	W, W	12,789	-3.8%
23	W, W	6,702	-1.8%
24	W, W	2,199	-0.5%
25	W, W	1,839	-0.4%
26	W, AN	1,423	-0.3%
27	AN, AN	521	-0.1%
28	D, D	8,953	-2.1%
29	D, D	19,322	-5.1%
30	AN, BN	-1,393	0.4%
31	BN, D	8,821	-2.2%
32	AN, W	7,552	-1.7%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
33	W, W	2,151	-0.4%
34	D, C	17,517	-4.1%
35	C, C	480	-0.1%
36	D, BN	10,377	-3.4%
37	BN, AN	-3,586	1.1%
38	W, W	3,621	-0.9%
39	BN, D	2,930	-0.8%
40	D, C	20,300	-5.4%
41	C, C	-855	0.3%
42	C, C	3,164	-1.5%
<b>Average</b>		<b>6,866</b>	<b>-2.2%</b>
<b>Maximum</b>		<b>23,440</b>	<b>1.1%</b>
<b>Minimum</b>		<b>-3,586</b>	<b>-11.9%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-279. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 6 (SR6) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	-2,169	-3.9%
2	W, W	-1,807	-2.4%
3	C, C	27	0.0%
4	C, C	-2,937	-2.1%
5	AN, W	-5,213	-2.2%
6	BN, AN	-2,546	-1.7%
7	AN, W	-123	-0.1%
8	D, D	-2,201	-1.5%
9	W, W	884	1.5%
10	W, W	-556	2.6%
11	W, AN	-1,687	-5.9%
12	D, D	187	0.3%
13	W, W	-283	-0.6%
14	D, D	-293	-0.3%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
15	C, C	-1,811	-1.4%
16	D, C	-789	-0.5%
17	C, C	-1,763	-1.4%
18	C, C	-6,907	-3.9%
19	C, C	-2,255	-1.1%
20	AN, W	-4,206	-1.7%
21	C, C	-1,065	-0.7%
22	W, W	-504	-0.3%
23	W, W	-1,436	-1.1%
24	W, W	-935	-0.9%
25	W, W	-1,442	-2.5%
26	W, AN	-2,785	-4.8%
27	AN, AN	-2,019	-2.5%
28	D, D	-1,014	-1.1%
29	D, D	608	0.6%
30	AN, BN	-3,278	-3.2%
31	BN, D	-1,576	-1.6%
32	AN, W	-681	-1.0%
33	W, W	-427	-1.0%
34	D, C	-1,854	-1.9%
35	C, C	-1,555	-1.6%
36	D, BN	7,892	6.5%
37	BN, AN	-14,424	-10.3%
38	W, W	-5,195	-6.4%
39	BN, D	-4,660	-4.0%
40	D, C	-3,965	-2.6%
41	C, C	-6,839	-5.0%
42	C, C	-4,802	-2.2%
<b>Average</b>		<b>-2,105</b>	<b>-1.8%</b>
<b>Maximum</b>		<b>7,892</b>	<b>6.5%</b>
<b>Minimum</b>		<b>-14,424</b>	<b>-10.3%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-280. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 7 (SR7) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	117	-0.8%
2	W, W	1,353	-5.5%
3	C, C	2,867	-16.3%
4	C, C	-2,966	-9.6%
5	AN, W	1,775	3.9%
6	BN, AN	838	34.0%
7	AN, W	3,987	-50.3%
8	D, D	5,064	70.9%
9	W, W	3,045	71.6%
10	W, W	2,712	-7.0%
11	W, AN	872	-2.6%
12	D, D	4,333	-13.6%
13	W, W	2,097	-5.9%
14	D, D	2,829	-23.4%
15	C, C	3,215	-306.1%
16	D, C	8,474	46.7%
17	C, C	2,211	-108.1%
18	C, C	-1,311	-5.8%
19	C, C	6,638	25.1%
20	AN, W	3,625	13.2%
21	C, C	4,667	64.3%
22	W, W	2,888	12.0%
23	W, W	2,680	15.5%
24	W, W	3,211	-39.5%
25	W, W	2,597	-29.5%
26	W, AN	1,961	-13.5%
27	AN, AN	882	-8.3%
28	D, D	4,117	-24.9%
29	D, D	5,967	-10,251.9%
30	AN, BN	506	3.5%
31	BN, D	3,385	73.1%
32	AN, W	1,693	-84.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
33	W, W	1,147	-24.6%
34	D, C	4,151	-157.2%
35	C, C	679	25.7%
36	D, BN	4,141	16.9%
37	BN, AN	1,520	8.3%
38	W, W	2,147	24.4%
39	BN, D	2,628	26.7%
40	D, C	4,887	111.0%
41	C, C	-4,514	-15.3%
42	C, C	5,703	13.6%
<b>Average</b>		<b>2,591</b>	<b>-251.0%</b>
<b>Maximum</b>		<b>8,474</b>	<b>111.0%</b>
<b>Minimum</b>		<b>-4,514</b>	<b>-10,251.9%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-281. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 8 (SR8) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	164	0.1%
2	W, W	1,168	0.5%
3	C, C	1,941	0.9%
4	C, C	-734	-0.4%
5	AN, W	2,166	0.7%
6	BN, AN	4,169	1.3%
7	AN, W	4,524	1.4%
8	D, D	3,625	1.5%
9	W, W	1,664	0.5%
10	W, W	1,655	0.7%
11	W, AN	-1,652	-0.9%
12	D, D	3,232	1.9%
13	W, W	-855	-0.4%
14	D, D	1,954	1.1%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
15	C, C	1,370	0.7%
16	D, C	2,476	1.0%
17	C, C	1,879	0.9%
18	C, C	-1,061	-0.4%
19	C, C	2,963	1.1%
20	AN, W	1,026	0.3%
21	C, C	1,546	0.6%
22	W, W	429	0.1%
23	W, W	197	0.1%
24	W, W	2,596	0.8%
25	W, W	-1,031	-0.4%
26	W, AN	1,959	0.8%
27	AN, AN	4	0.0%
28	D, D	2,782	1.2%
29	D, D	1,676	0.7%
30	AN, BN	-2,201	-1.0%
31	BN, D	2,409	1.1%
32	AN, W	-1,111	-0.4%
33	W, W	805	0.2%
34	D, C	1,370	0.6%
35	C, C	-208	-0.1%
36	D, BN	464	0.2%
37	BN, AN	824	0.4%
38	W, W	-150	0.0%
39	BN, D	917	0.4%
40	D, C	780	0.3%
41	C, C	-1,079	-0.5%
42	C, C	4,740	1.8%
<b>Average</b>		<b>1,176</b>	<b>0.5%</b>
<b>Maximum</b>		<b>4,740</b>	<b>1.9%</b>
<b>Minimum</b>		<b>-2,201</b>	<b>-1.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-282. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 9 (SR9) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	1,078	-0.3%
2	W, W	354	-0.1%
3	C, C	3,974	-0.8%
4	C, C	-5,202	1.4%
5	AN, W	1,344	-0.8%
6	BN, AN	-1,298	0.4%
7	AN, W	7,270	-2.6%
8	D, D	2,284	-0.6%
9	W, W	2,885	-1.1%
10	W, W	1,007	-0.3%
11	W, AN	-1,689	0.4%
12	D, D	8,255	-1.7%
13	W, W	-933	0.2%
14	D, D	2,622	-0.6%
15	C, C	-70	0.0%
16	D, C	10,286	-3.2%
17	C, C	5,414	-1.4%
18	C, C	-6,264	1.9%
19	C, C	23,201	-7.7%
20	AN, W	-19,766	9.6%
21	C, C	735	-0.2%
22	W, W	-3,364	1.7%
23	W, W	-2,908	1.0%
24	W, W	2,060	-0.5%
25	W, W	777	-0.2%
26	W, AN	-3,124	0.7%
27	AN, AN	787	-0.2%
28	D, D	3,707	-0.8%
29	D, D	12,396	-3.2%
30	AN, BN	-7,984	2.4%
31	BN, D	2,956	-0.8%
32	AN, W	2,261	-0.6%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
33	W, W	-255	0.1%
34	D, C	4,456	-1.0%
35	C, C	-4,714	1.1%
36	D, BN	6,762	-1.8%
37	BN, AN	4,368	-1.3%
38	W, W	401	-0.1%
39	BN, D	427	-0.1%
40	D, C	9,995	-2.6%
41	C, C	-8,457	2.0%
42	C, C	23,591	-7.0%
<b>Average</b>		<b>1,896</b>	<b>-0.4%</b>
<b>Maximum</b>		<b>23,591</b>	<b>9.6%</b>
<b>Minimum</b>		<b>-19,766</b>	<b>-7.7%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-283. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 10 (SR10) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	5,982	-6.9%
2	W, W	5,754	-6.4%
3	C, C	5,806	-6.4%
4	C, C	-16,864	75.2%
5	AN, W	-7,428	-44.1%
6	BN, AN	1,360	-2.0%
7	AN, W	4,425	-10.2%
8	D, D	4,788	-5.7%
9	W, W	7,374	-10.5%
10	W, W	5,341	-6.3%
11	W, AN	4,395	-3.7%
12	D, D	2,976	-2.5%
13	W, W	5,934	-7.2%
14	D, D	3,771	-3.3%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
15	C, C	4,220	-4.1%
16	D, C	5,372	-7.0%
17	C, C	6,090	-10.2%
18	C, C	2,918	53.1%
19	C, C	2,194	18.5%
20	AN, W	3,246	16.6%
21	C, C	1,891	-5.9%
22	W, W	4,889	81.8%
23	W, W	5,194	-9.4%
24	W, W	3,696	-5.1%
25	W, W	1,549	-2.0%
26	W, AN	1,547	-1.2%
27	AN, AN	2,429	-2.4%
28	D, D	3,641	-3.3%
29	D, D	4,652	-4.7%
30	AN, BN	6,604	-7.1%
31	BN, D	6,436	-6.5%
32	AN, W	9,361	-9.1%
33	W, W	5,980	-5.1%
34	D, C	5,111	-4.3%
35	C, C	5,409	-6.2%
36	D, BN	6,209	-7.4%
37	BN, AN	7,736	-10.7%
38	W, W	10,862	-9.7%
39	BN, D	7,625	-5.4%
40	D, C	5,888	-5.1%
41	C, C	-9,213	19.4%
42	C, C	-5,715	68.1%
<b>Average</b>		<b>3,558</b>	<b>2.0%</b>
<b>Maximum</b>		<b>10,862</b>	<b>81.8%</b>
<b>Minimum</b>		<b>-16,864</b>	<b>-44.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-284. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 11 (SR11) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	1,140	-2.7%
2	W, W	1,325	-2.8%
3	C, C	1,431	-7.2%
4	C, C	19,953	20.9%
5	AN, W	-10,640	-14.8%
6	BN, AN	1,447	4.6%
7	AN, W	906	12.1%
8	D, D	2,029	-10.3%
9	W, W	977	-5.0%
10	W, W	922	-2.9%
11	W, AN	1,358	-1.4%
12	D, D	780	-1.1%
13	W, W	-831	1.6%
14	D, D	3,058	-7.8%
15	C, C	1,693	7.8%
16	D, C	1,773	3.1%
17	C, C	794	1.2%
18	C, C	2,162	2.7%
19	C, C	1,108	1.4%
20	AN, W	-1,700	-3.9%
21	C, C	-2,983	-6.5%
22	W, W	-1,104	-2.8%
23	W, W	556	-5.4%
24	W, W	-3,068	14.6%
25	W, W	7,004	-15.7%
26	W, AN	2,431	-2.3%
27	AN, AN	-104	0.2%
28	D, D	2,172	-4.6%
29	D, D	1,746	-4.9%
30	AN, BN	2,131	-6.2%
31	BN, D	2,218	-6.1%
32	AN, W	6,867	-13.6%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
33	W, W	-1,398	2.1%
34	D, C	2,598	-3.6%
35	C, C	2,348	-50.3%
36	D, BN	1,876	10.3%
37	BN, AN	3,143	-42.7%
38	W, W	2,782	610.8%
39	BN, D	2,585	-3.1%
40	D, C	2,405	-17.9%
41	C, C	19,165	31.1%
42	C, C	-11,497	-12.6%
<b>Average</b>		<b>1,704</b>	<b>11.1%</b>
<b>Maximum</b>		<b>19,953</b>	<b>610.8%</b>
<b>Minimum</b>		<b>-11,497</b>	<b>-50.3%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-285. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 12 (SR12) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	1,984	2.3%
2	W, W	2,112	2.7%
3	C, C	2,209	2.1%
4	C, C	1,754	1.0%
5	AN, W	1,539	0.8%
6	BN, AN	2,131	1.3%
7	AN, W	2,310	1.7%
8	D, D	2,655	2.3%
9	W, W	2,788	2.9%
10	W, W	2,381	3.0%
11	W, AN	2,101	3.4%
12	D, D	1,809	2.4%
13	W, W	1,994	2.5%
14	D, D	2,084	2.2%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
15	C, C	1,962	1.4%
16	D, C	2,237	1.1%
17	C, C	1,284	0.6%
18	C, C	2,704	1.2%
19	C, C	1,709	0.7%
20	AN, W	-39	0.0%
21	C, C	215	0.1%
22	W, W	2,006	1.1%
23	W, W	2,114	1.8%
24	W, W	1,786	1.5%
25	W, W	1,456	1.8%
26	W, AN	1,151	2.2%
27	AN, AN	1,244	1.5%
28	D, D	1,737	2.0%
29	D, D	2,153	2.2%
30	AN, BN	2,666	2.8%
31	BN, D	2,890	3.0%
32	AN, W	3,086	4.4%
33	W, W	2,792	4.8%
34	D, C	2,391	3.4%
35	C, C	2,530	1.9%
36	D, BN	2,727	1.8%
37	BN, AN	3,799	3.5%
38	W, W	3,734	3.7%
39	BN, D	3,131	5.3%
40	D, C	2,883	2.4%
41	C, C	2,276	1.2%
42	C, C	1,865	0.8%
<b>Average</b>		<b>2,151</b>	<b>2.1%</b>
<b>Maximum</b>		<b>3,799</b>	<b>5.3%</b>
<b>Minimum</b>		<b>-39</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-286. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 13 (SR13) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	4,633	0.8%
2	W, W	4,387	0.7%
3	C, C	4,227	0.7%
4	C, C	-7,908	-1.3%
5	AN, W	-7,128	-0.8%
6	BN, AN	570	0.1%
7	AN, W	2,806	0.4%
8	D, D	3,895	0.6%
9	W, W	4,227	0.6%
10	W, W	4,377	0.5%
11	W, AN	4,607	0.8%
12	D, D	4,564	0.8%
13	W, W	4,791	0.7%
14	D, D	4,833	0.8%
15	C, C	4,802	0.8%
16	D, C	5,138	0.8%
17	C, C	4,803	0.8%
18	C, C	2,992	0.4%
19	C, C	3,661	0.5%
20	AN, W	4,117	0.6%
21	C, C	4,869	0.7%
22	W, W	5,180	0.7%
23	W, W	5,437	0.8%
24	W, W	5,088	0.6%
25	W, W	5,085	0.7%
26	W, AN	4,770	0.8%
27	AN, AN	4,825	0.7%
28	D, D	4,711	0.8%
29	D, D	4,759	0.8%
30	AN, BN	5,053	0.8%
31	BN, D	5,162	0.9%
32	AN, W	5,513	0.9%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
33	W, W	5,808	0.9%
34	D, C	5,560	0.9%
35	C, C	5,648	0.9%
36	D, BN	5,664	0.9%
37	BN, AN	5,938	1.0%
38	W, W	6,501	0.9%
39	BN, D	6,529	1.0%
40	D, C	6,170	1.0%
41	C, C	-3,108	-0.5%
42	C, C	-2,753	-0.4%
<b>Average</b>		<b>3,829</b>	<b>0.6%</b>
<b>Maximum</b>		<b>6,529</b>	<b>1.0%</b>
<b>Minimum</b>		<b>-7,908</b>	<b>-1.3%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-287. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 14 (SR14) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	-37	-0.1%
2	W, W	-524	-1.0%
3	C, C	106	0.2%
4	C, C	-319	-0.7%
5	AN, W	-95	-0.1%
6	BN, AN	105	0.2%
7	AN, W	-203	-0.3%
8	D, D	14	0.0%
9	W, W	16	0.0%
10	W, W	-202	-0.1%
11	W, AN	228	0.4%
12	D, D	-79	-0.2%
13	W, W	-212	-0.3%
14	D, D	-210	-0.5%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
15	C, C	-110	-0.3%
16	D, C	20	0.0%
17	C, C	-132	-0.3%
18	C, C	-117	-0.2%
19	C, C	-34	-0.1%
20	AN, W	-66	-0.1%
21	C, C	-196	-0.4%
22	W, W	-113	-0.1%
23	W, W	20	0.0%
24	W, W	145	0.2%
25	W, W	28	0.0%
26	W, AN	25	0.1%
27	AN, AN	49	0.1%
28	D, D	19	0.0%
29	D, D	4	0.0%
30	AN, BN	-47	-0.1%
31	BN, D	-26	-0.1%
32	AN, W	-29	0.0%
33	W, W	173	0.3%
34	D, C	-17	0.0%
35	C, C	-257	-0.5%
36	D, BN	-532	-1.2%
37	BN, AN	-312	-0.6%
38	W, W	-44	-0.1%
39	BN, D	36	0.1%
40	D, C	-205	-0.4%
41	C, C	-160	-0.4%
42	C, C	-15	0.0%
<b>Average</b>		<b>-79</b>	<b>-0.1%</b>
<b>Maximum</b>		<b>228</b>	<b>0.4%</b>
<b>Minimum</b>		<b>-532</b>	<b>-1.2%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-288. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 15 (SR15) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	7,216	1.4%
2	W, W	8,662	2.2%
3	C, C	2,611	0.6%
4	C, C	3,249	0.7%
5	AN, W	6,258	0.6%
6	BN, AN	8,621	1.8%
7	AN, W	17,421	2.1%
8	D, D	10,396	2.6%
9	W, W	16,634	2.5%
10	W, W	18,612	3.4%
11	W, AN	12,182	3.1%
12	D, D	9,397	2.3%
13	W, W	17,089	3.0%
14	D, D	12,615	3.1%
15	C, C	11,366	3.1%
16	D, C	13,203	3.3%
17	C, C	10,656	2.5%
18	C, C	9,236	1.9%
19	C, C	8,593	1.8%
20	AN, W	8,331	1.7%
21	C, C	9,047	1.7%
22	W, W	18,040	1.9%
23	W, W	13,471	2.0%
24	W, W	12,435	2.0%
25	W, W	12,354	2.4%
26	W, AN	8,182	2.3%
27	AN, AN	9,032	2.1%
28	D, D	11,085	2.7%
29	D, D	11,618	3.1%
30	AN, BN	11,170	2.8%
31	BN, D	11,138	2.8%
32	AN, W	11,788	1.9%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
33	W, W	22,031	3.3%
34	D, C	11,360	2.7%
35	C, C	11,706	3.0%
36	D, BN	15,024	3.5%
37	BN, AN	17,832	2.3%
38	W, W	25,686	3.3%
39	BN, D	14,330	2.9%
40	D, C	12,792	3.1%
41	C, C	9,766	2.0%
42	C, C	6,703	1.4%
<b>Average</b>		<b>11,880</b>	<b>2.4%</b>
<b>Maximum</b>		<b>25,686</b>	<b>3.5%</b>
<b>Minimum</b>		<b>2,611</b>	<b>0.6%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-289. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 16 (SR16) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	576	1.7%
2	W, W	583	2.0%
3	C, C	573	1.1%
4	C, C	1,080	1.4%
5	AN, W	116	0.2%
6	BN, AN	563	1.3%
7	AN, W	608	1.6%
8	D, D	640	1.6%
9	W, W	704	1.9%
10	W, W	744	2.4%
11	W, AN	793	4.8%
12	D, D	850	3.2%
13	W, W	908	3.4%
14	D, D	959	3.5%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
15	C, C	1,003	2.4%
16	D, C	1,038	1.9%
17	C, C	1,073	1.7%
18	C, C	808	1.1%
19	C, C	995	1.4%
20	AN, W	953	1.7%
21	C, C	1,023	1.8%
22	W, W	1,043	2.1%
23	W, W	1,108	2.6%
24	W, W	1,064	3.0%
25	W, W	1,090	3.4%
26	W, AN	1,102	4.5%
27	AN, AN	1,136	4.1%
28	D, D	1,149	2.8%
29	D, D	1,217	2.3%
30	AN, BN	1,256	2.2%
31	BN, D	1,291	2.4%
32	AN, W	1,296	3.1%
33	W, W	1,345	4.8%
34	D, C	1,318	2.8%
35	C, C	1,350	2.3%
36	D, BN	1,369	2.2%
37	BN, AN	1,344	2.4%
38	W, W	1,439	4.3%
39	BN, D	1,390	2.9%
40	D, C	1,268	1.6%
41	C, C	1,310	1.4%
42	C, C	539	0.6%
<b>Average</b>		<b>1,000</b>	<b>2.4%</b>
<b>Maximum</b>		<b>1,439</b>	<b>4.8%</b>
<b>Minimum</b>		<b>116</b>	<b>0.2%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-290. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 17 (SR17) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	627	3.1%
2	W, W	562	1.2%
3	C, C	505	0.5%
4	C, C	80	0.1%
5	AN, W	753	0.7%
6	BN, AN	694	9.3%
7	AN, W	701	-2.0%
8	D, D	749	6.4%
9	W, W	722	2.8%
10	W, W	933	-1.9%
11	W, AN	923	-0.9%
12	D, D	978	-12.2%
13	W, W	1,018	-7.5%
14	D, D	1,039	16.1%
15	C, C	685	1.3%
16	D, C	162	0.3%
17	C, C	41	0.1%
18	C, C	104	0.1%
19	C, C	21	0.0%
20	AN, W	893	0.7%
21	C, C	929	0.7%
22	W, W	1,138	1.6%
23	W, W	1,307	3.7%
24	W, W	1,344	-8.9%
25	W, W	1,247	-54.8%
26	W, AN	1,235	-6.5%
27	AN, AN	1,224	7.1%
28	D, D	1,071	1.9%
29	D, D	683	1.0%
30	AN, BN	910	1.1%
31	BN, D	724	0.8%
32	AN, W	1,482	2.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
33	W, W	1,836	6.2%
34	D, C	1,942	3.0%
35	C, C	1,074	1.3%
36	D, BN	922	1.0%
37	BN, AN	1,781	1.3%
38	W, W	2,523	3.4%
39	BN, D	1,834	3.6%
40	D, C	861	0.7%
41	C, C	716	0.5%
42	C, C	18	0.0%
<b>Average</b>		<b>928</b>	<b>-0.3%</b>
<b>Maximum</b>		<b>2,523</b>	<b>16.1%</b>
<b>Minimum</b>		<b>18</b>	<b>-54.8%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-291. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 18 (SR18) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	177	-0.3%
2	W, W	37	-0.1%
3	C, C	-703	2.1%
4	C, C	-564	-1.4%
5	AN, W	-785	-0.6%
6	BN, AN	-3,126	1.5%
7	AN, W	-1,984	0.8%
8	D, D	-1,520	0.5%
9	W, W	-1,279	0.4%
10	W, W	43	0.0%
11	W, AN	-152	0.0%
12	D, D	-3,611	0.5%
13	W, W	-1,432	0.2%
14	D, D	-1,135	0.2%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
15	C, C	-1,253	0.3%
16	D, C	-617	0.4%
17	C, C	-421	7.1%
18	C, C	-359	-0.7%
19	C, C	-157	-0.2%
20	AN, W	-67	-0.1%
21	C, C	162	1.9%
22	W, W	-805	-2.7%
23	W, W	-92	0.0%
24	W, W	-16,230	7.2%
25	W, W	-6,773	1.3%
26	W, AN	-4,418	0.6%
27	AN, AN	-4,880	0.9%
28	D, D	-3,886	0.9%
29	D, D	-3,531	1.7%
30	AN, BN	-3,221	4.3%
31	BN, D	-2,030	5.7%
32	AN, W	-2,080	3.0%
33	W, W	-234	0.1%
34	D, C	-24	0.0%
35	C, C	292	0.6%
36	D, BN	385	0.5%
37	BN, AN	300	0.4%
38	W, W	-1,423	0.6%
39	BN, D	606	-0.2%
40	D, C	15	0.0%
41	C, C	254	0.4%
42	C, C	211	0.2%
<b>Average</b>		<b>-1,579</b>	<b>0.9%</b>
<b>Maximum</b>		<b>606</b>	<b>7.2%</b>
<b>Minimum</b>		<b>-16,230</b>	<b>-2.7%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-292. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 19 (SR19) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	0	0.0%
3	C, C	0	0.0%
4	C, C	0	0.0%
5	AN, W	0	0.0%
6	BN, AN	0	0.0%
7	AN, W	0	0.0%
8	D, D	0	0.0%
9	W, W	0	0.0%
10	W, W	0	0.0%
11	W, AN	-1	0.0%
12	D, D	-1	-0.1%
13	W, W	-3	0.0%
14	D, D	-1	0.0%
15	C, C	0	0.0%
16	D, C	0	0.0%
17	C, C	0	0.0%
18	C, C	0	0.0%
19	C, C	0	0.0%
20	AN, W	0	0.0%
21	C, C	0	0.0%
22	W, W	-2	0.0%
23	W, W	-2	0.3%
24	W, W	0	0.0%
25	W, W	-4	0.0%
26	W, AN	-4	0.0%
27	AN, AN	-3	-1.1%
28	D, D	-1	-0.1%
29	D, D	0	0.0%
30	AN, BN	0	0.0%
31	BN, D	0	0.0%
32	AN, W	-1	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
33	W, W	-1	0.0%
34	D, C	-1	0.0%
35	C, C	0	0.0%
36	D, BN	0	0.0%
37	BN, AN	0	0.0%
38	W, W	-1	0.0%
39	BN, D	0	0.1%
40	D, C	0	0.0%
41	C, C	0	0.0%
42	C, C	0	0.0%
<b>Average</b>		<b>-1</b>	<b>0.0%</b>
<b>Maximum</b>		<b>0</b>	<b>0.3%</b>
<b>Minimum</b>		<b>-4</b>	<b>-1.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-293. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 20 (SR20) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	0	0.0%
3	C, C	0	0.0%
4	C, C	0	0.0%
5	AN, W	0	0.0%
6	BN, AN	0	0.0%
7	AN, W	0	0.0%
8	D, D	1	0.0%
9	W, W	0	0.0%
10	W, W	0	0.0%
11	W, AN	0	0.0%
12	D, D	0	0.0%
13	W, W	0	0.0%
14	D, D	0	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
15	C, C	0	0.0%
16	D, C	0	0.0%
17	C, C	0	0.0%
18	C, C	0	0.0%
19	C, C	0	0.0%
20	AN, W	0	0.0%
21	C, C	0	0.0%
22	W, W	0	0.0%
23	W, W	0	0.0%
24	W, W	0	0.0%
25	W, W	0	0.0%
26	W, AN	1	0.0%
27	AN, AN	1	0.0%
28	D, D	1	0.0%
29	D, D	1	0.0%
30	AN, BN	1	0.0%
31	BN, D	1	0.0%
32	AN, W	1	0.0%
33	W, W	1	0.0%
34	D, C	1	0.0%
35	C, C	1	0.0%
36	D, BN	1	0.0%
37	BN, AN	0	0.0%
38	W, W	1	0.0%
39	BN, D	0	0.0%
40	D, C	1	0.0%
41	C, C	0	0.0%
42	C, C	1	0.0%
<b>Average</b>		<b>0</b>	<b>0.0%</b>
<b>Maximum</b>		<b>1</b>	<b>0.0%</b>
<b>Minimum</b>		<b>0</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-294. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 21 (SR21) for Alternative 2 Without TUCP Systemwide VA Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	0	0.0%
3	C, C	0	0.0%
4	C, C	0	0.0%
5	AN, W	0	0.0%
6	BN, AN	0	0.0%
7	AN, W	0	0.0%
8	D, D	0	0.0%
9	W, W	0	0.0%
10	W, W	1	0.0%
11	W, AN	0	0.0%
12	D, D	0	0.0%
13	W, W	0	0.0%
14	D, D	0	0.0%
15	C, C	0	0.0%
16	D, C	0	0.0%
17	C, C	0	0.0%
18	C, C	0	0.0%
19	C, C	0	0.0%
20	AN, W	0	0.0%
21	C, C	0	0.0%
22	W, W	0	0.0%
23	W, W	0	0.0%
24	W, W	0	0.0%
25	W, W	0	0.0%
26	W, AN	0	0.0%
27	AN, AN	-1	0.0%
28	D, D	-1	0.0%
29	D, D	0	0.0%
30	AN, BN	0	0.0%
31	BN, D	-1	0.0%
32	AN, W	0	0.0%
33	W, W	0	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt2v3 minus NAA (TAF)	Alt2v3 minus NAA (% Difference)
34	D, C	0	0.0%
35	C, C	0	0.0%
36	D, BN	0	0.0%
37	BN, AN	0	0.0%
38	W, W	0	0.0%
39	BN, D	0	0.0%
40	D, C	0	0.0%
41	C, C	0	0.0%
42	C, C	0	0.0%
<b>Average</b>		<b>0</b>	<b>0.0%</b>
<b>Maximum</b>		<b>1</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-1</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

### I-1.2.7 Changes in Groundwater-Surface Water Interaction Flow, Alternative 3 Compared to No Action Alternative

Table I.1-295 through Table I.1-315 provide the annual simulated groundwater-surface water interaction flow through the model simulation period for each of the 21 model subregions for Alternative 3 compared to the No Action Alternative.

Table I.1-295. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 1 (SR1) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	-2,510	0.8%
2	W, W	2,015	-0.7%
3	C, C	3,180	-1.1%
4	C, C	32,470	-12.5%
5	AN, W	28,140	-12.4%
6	BN, AN	10,222	-3.9%
7	AN, W	-1,436	0.6%
8	D, D	4,046	-1.6%
9	W, W	-1,959	0.7%
10	W, W	2,357	-0.8%
11	W, AN	-1,596	0.5%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
12	D, D	541	-0.2%
13	W, W	-323	0.1%
14	D, D	8,539	-3.1%
15	C, C	2,337	-0.9%
16	D, C	4,735	-1.9%
17	C, C	2,586	-1.1%
18	C, C	8,288	-4.1%
19	C, C	16,282	-8.5%
20	AN, W	-559	0.3%
21	C, C	5,985	-2.6%
22	W, W	2,115	-1.0%
23	W, W	1,739	-0.7%
24	W, W	1,096	-0.4%
25	W, W	2,114	-0.8%
26	W, AN	801	-0.3%
27	AN, AN	1,658	-0.5%
28	D, D	5,210	-1.8%
29	D, D	-3,231	1.2%
30	AN, BN	-1,183	0.4%
31	BN, D	4,294	-1.5%
32	AN, W	5,579	-2.0%
33	W, W	-1,823	0.6%
34	D, C	4,960	-1.6%
35	C, C	10,360	-3.6%
36	D, BN	8,617	-3.2%
37	BN, AN	669	-0.3%
38	W, W	902	-0.4%
39	BN, D	3,134	-1.2%
40	D, C	3,238	-1.2%
41	C, C	33,126	-13.9%
42	C, C	51,178	-24.1%
<b>Average</b>		<b>6,140</b>	<b>-2.6%</b>
<b>Maximum</b>		<b>51,178</b>	<b>1.2%</b>
<b>Minimum</b>		<b>-3,231</b>	<b>-24.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-296. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 2 (SR2) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	-188	-0.2%
2	W, W	4,474	9.7%
3	C, C	7,033	54.0%
4	C, C	-91	0.7%
5	AN, W	9,356	2.5%
6	BN, AN	15,525	11.4%
7	AN, W	-2,968	-1.6%
8	D, D	7,371	6.0%
9	W, W	623	0.4%
10	W, W	3,528	22.4%
11	W, AN	-3,195	10.3%
12	D, D	2,676	8.8%
13	W, W	3,130	4.8%
14	D, D	7,960	11.8%
15	C, C	8,197	5.9%
16	D, C	16,546	8.3%
17	C, C	9,991	8.8%
18	C, C	6,378	3.8%
19	C, C	17,427	6.9%
20	AN, W	1,407	0.4%
21	C, C	9,700	10.9%
22	W, W	15,033	5.5%
23	W, W	9,145	6.0%
24	W, W	7,305	9.1%
25	W, W	5,636	6.9%
26	W, AN	2,614	81.4%
27	AN, AN	2,364	5.0%
28	D, D	9,890	29.1%
29	D, D	-427	-0.4%
30	AN, BN	282	0.2%
31	BN, D	5,244	6.8%
32	AN, W	9,358	12.2%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
33	W, W	-271	-0.7%
34	D, C	2,316	10.1%
35	C, C	13,039	14.8%
36	D, BN	12,557	9.8%
37	BN, AN	1,429	0.8%
38	W, W	6,566	4.1%
39	BN, D	6,370	10.2%
40	D, C	2,346	1.8%
41	C, C	6,935	6.2%
42	C, C	17,668	8.1%
<b>Average</b>		<b>6,197</b>	<b>9.8%</b>
<b>Maximum</b>		<b>17,668</b>	<b>81.4%</b>
<b>Minimum</b>		<b>-3,195</b>	<b>-1.6%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-297. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 3 (SR3) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	6,432	-6.6%
2	W, W	6,523	-6.9%
3	C, C	9,549	-11.1%
4	C, C	57,886	-88.1%
5	AN, W	48,721	-99.7%
6	BN, AN	18,597	-26.5%
7	AN, W	11,149	-15.3%
8	D, D	10,300	-13.4%
9	W, W	8,870	-10.2%
10	W, W	8,128	-7.8%
11	W, AN	7,560	-6.7%
12	D, D	7,473	-7.8%
13	W, W	7,084	-8.2%
14	D, D	11,280	-13.3%
15	C, C	14,368	-18.3%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
16	D, C	14,358	-20.6%
17	C, C	12,961	-19.0%
18	C, C	18,853	-37.9%
19	C, C	20,739	-52.2%
20	AN, W	11,754	-26.3%
21	C, C	14,973	-22.6%
22	W, W	15,776	-27.3%
23	W, W	11,768	-15.2%
24	W, W	10,538	-12.1%
25	W, W	9,741	-11.0%
26	W, AN	8,340	-8.0%
27	AN, AN	7,386	-8.1%
28	D, D	10,633	-12.0%
29	D, D	9,430	-11.1%
30	AN, BN	8,126	-9.4%
31	BN, D	10,158	-11.0%
32	AN, W	8,299	-9.0%
33	W, W	6,490	-6.5%
34	D, C	10,014	-10.2%
35	C, C	12,723	-14.6%
36	D, BN	13,887	-18.1%
37	BN, AN	9,538	-13.0%
38	W, W	8,005	-9.0%
39	BN, D	7,676	-8.6%
40	D, C	10,583	-12.6%
41	C, C	57,672	-81.9%
42	C, C	77,073	-159.0%
<b>Average</b>		<b>15,510</b>	<b>-23.5%</b>
<b>Maximum</b>		<b>77,073</b>	<b>-6.5%</b>
<b>Minimum</b>		<b>6,432</b>	<b>-159.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-298. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 4 (SR4) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	-117	0.0%
2	W, W	7,958	-1.9%
3	C, C	26,234	-7.2%
4	C, C	173,434	-59.8%
5	AN, W	152,502	-49.2%
6	BN, AN	50,018	-13.0%
7	AN, W	1,911	-0.5%
8	D, D	21,441	-6.2%
9	W, W	17,505	-3.9%
10	W, W	19,292	-4.2%
11	W, AN	2,930	-0.6%
12	D, D	14,096	-3.6%
13	W, W	13,896	-3.1%
14	D, D	28,095	-8.1%
15	C, C	18,132	-4.9%
16	D, C	32,440	-9.8%
17	C, C	33,281	-8.8%
18	C, C	56,327	-17.8%
19	C, C	79,098	-27.5%
20	AN, W	24,202	-6.8%
21	C, C	39,173	-11.6%
22	W, W	26,727	-7.0%
23	W, W	14,416	-3.9%
24	W, W	17,074	-4.4%
25	W, W	17,700	-4.4%
26	W, AN	9,489	-2.2%
27	AN, AN	8,198	-2.1%
28	D, D	34,130	-8.6%
29	D, D	3,239	-0.8%
30	AN, BN	2,544	-0.6%
31	BN, D	14,899	-3.9%
32	AN, W	22,014	-5.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
33	W, W	11,710	-2.7%
34	D, C	20,326	-5.4%
35	C, C	38,544	-9.8%
36	D, BN	35,377	-9.7%
37	BN, AN	10,468	-2.8%
38	W, W	20,510	-5.0%
39	BN, D	11,224	-3.0%
40	D, C	17,896	-4.8%
41	C, C	178,984	-52.2%
42	C, C	267,448	-88.2%
<b>Average</b>		<b>37,971</b>	<b>-11.3%</b>
<b>Maximum</b>		<b>267,448</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-117</b>	<b>-88.2%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-299. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 5 (SR5) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	1,494	-0.4%
2	W, W	-4,376	1.1%
3	C, C	31,223	-7.9%
4	C, C	29,383	-12.2%
5	AN, W	2,421	-1.5%
6	BN, AN	25,843	-8.0%
7	AN, W	-17,133	4.5%
8	D, D	27,694	-7.8%
9	W, W	-18,267	4.3%
10	W, W	39,440	-6.8%
11	W, AN	-23,715	5.1%
12	D, D	26,441	-6.2%
13	W, W	-5,240	1.3%
14	D, D	33,071	-9.1%
15	C, C	34,239	-11.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
16	D, C	15,859	-5.7%
17	C, C	41,059	-12.3%
18	C, C	47,618	-19.5%
19	C, C	69,467	-30.8%
20	AN, W	11,737	-4.4%
21	C, C	52,427	-15.2%
22	W, W	6,591	-2.0%
23	W, W	8,026	-2.1%
24	W, W	13,001	-3.0%
25	W, W	40,259	-8.5%
26	W, AN	-21,429	4.9%
27	AN, AN	-2,677	0.6%
28	D, D	35,655	-8.5%
29	D, D	11,556	-3.1%
30	AN, BN	-16,040	4.7%
31	BN, D	3,862	-1.0%
32	AN, W	17,295	-4.0%
33	W, W	23,191	-4.8%
34	D, C	-2,137	0.5%
35	C, C	36,139	-9.2%
36	D, BN	6,493	-2.1%
37	BN, AN	-22,868	7.2%
38	W, W	8,594	-2.1%
39	BN, D	-19,047	5.3%
40	D, C	37,103	-9.8%
41	C, C	54,714	-19.3%
42	C, C	84,960	-39.9%
<b>Average</b>		<b>17,236</b>	<b>-5.7%</b>
<b>Maximum</b>		<b>84,960</b>	<b>7.2%</b>
<b>Minimum</b>		<b>-23,715</b>	<b>-39.9%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-300. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 6 (SR6) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	-359	-0.6%
2	W, W	-118	-0.2%
3	C, C	5,298	4.5%
4	C, C	3,854	2.7%
5	AN, W	1,880	0.8%
6	BN, AN	6,467	4.2%
7	AN, W	-3,001	-2.8%
8	D, D	6,165	4.3%
9	W, W	-2,406	-4.0%
10	W, W	5,487	-25.6%
11	W, AN	-5,492	-19.3%
12	D, D	4,332	6.2%
13	W, W	-1,264	-2.7%
14	D, D	5,415	5.1%
15	C, C	1,476	1.2%
16	D, C	1,215	0.8%
17	C, C	2,706	2.2%
18	C, C	-1,225	-0.7%
19	C, C	3,016	1.5%
20	AN, W	-8,941	-3.5%
21	C, C	5,920	3.7%
22	W, W	2,670	1.4%
23	W, W	-1,503	-1.1%
24	W, W	2,422	2.4%
25	W, W	5,424	9.4%
26	W, AN	-4,027	-7.0%
27	AN, AN	-139	-0.2%
28	D, D	7,797	8.5%
29	D, D	-2,159	-2.0%
30	AN, BN	-4,617	-4.5%
31	BN, D	275	0.3%
32	AN, W	2,900	4.3%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
33	W, W	3,460	8.3%
34	D, C	-1,296	-1.3%
35	C, C	6,627	6.8%
36	D, BN	1,483	1.2%
37	BN, AN	-2,247	-1.6%
38	W, W	1,203	1.5%
39	BN, D	-3,088	-2.7%
40	D, C	3,638	2.4%
41	C, C	4,084	3.0%
42	C, C	9,837	4.5%
<b>Average</b>		<b>1,504</b>	<b>0.3%</b>
<b>Maximum</b>		<b>9,837</b>	<b>9.4%</b>
<b>Minimum</b>		<b>-8,941</b>	<b>-25.6%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-301. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 7 (SR7) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	-1,404	9.7%
2	W, W	-1,918	7.9%
3	C, C	7,183	-40.9%
4	C, C	2,349	7.6%
5	AN, W	-4,044	-8.9%
6	BN, AN	8,457	343.5%
7	AN, W	-6,077	76.6%
8	D, D	5,157	72.2%
9	W, W	-7,672	-180.4%
10	W, W	10,922	-28.1%
11	W, AN	-8,639	26.1%
12	D, D	2,934	-9.2%
13	W, W	-1,698	4.8%
14	D, D	5,391	-44.6%
15	C, C	4,133	-393.5%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
16	D, C	1,194	6.6%
17	C, C	4,358	-213.1%
18	C, C	4,176	18.4%
19	C, C	7,783	29.4%
20	AN, W	-10,848	-39.6%
21	C, C	3,795	52.3%
22	W, W	-2,443	-10.1%
23	W, W	-3,991	-23.0%
24	W, W	-696	8.6%
25	W, W	6,369	-72.3%
26	W, AN	-6,414	44.2%
27	AN, AN	-1,104	10.3%
28	D, D	7,765	-46.9%
29	D, D	-1,097	1,884.7%
30	AN, BN	-5,603	-38.3%
31	BN, D	-2,429	-52.5%
32	AN, W	2,719	-134.8%
33	W, W	3,786	-81.3%
34	D, C	-2,672	101.2%
35	C, C	6,687	252.8%
36	D, BN	3,105	12.7%
37	BN, AN	-8,494	-46.4%
38	W, W	1,400	15.9%
39	BN, D	-4,936	-50.2%
40	D, C	5,614	127.5%
41	C, C	8,362	28.4%
42	C, C	7,817	18.7%
<b>Average</b>		<b>935</b>	<b>39.2%</b>
<b>Maximum</b>		<b>10,922</b>	<b>1,884.7%</b>
<b>Minimum</b>		<b>-10,848</b>	<b>-393.5%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-302. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 8 (SR8) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	5,328	2.0%
2	W, W	1,952	0.8%
3	C, C	4,156	2.0%
4	C, C	1,236	0.6%
5	AN, W	5,077	1.6%
6	BN, AN	472	0.1%
7	AN, W	2,937	0.9%
8	D, D	-476	-0.2%
9	W, W	5,403	1.5%
10	W, W	19,670	7.9%
11	W, AN	5,356	3.0%
12	D, D	3,915	2.4%
13	W, W	6,501	2.9%
14	D, D	2,767	1.5%
15	C, C	3,204	1.6%
16	D, C	4,609	1.9%
17	C, C	2,990	1.4%
18	C, C	4,466	1.8%
19	C, C	3,924	1.5%
20	AN, W	3,935	1.2%
21	C, C	-790	-0.3%
22	W, W	6,189	1.7%
23	W, W	-6,068	-1.7%
24	W, W	11,924	3.7%
25	W, W	7,818	2.7%
26	W, AN	1,995	0.8%
27	AN, AN	6,659	2.8%
28	D, D	8,365	3.6%
29	D, D	3,585	1.5%
30	AN, BN	5,961	2.6%
31	BN, D	2,718	1.3%
32	AN, W	7,962	3.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
33	W, W	7,851	2.4%
34	D, C	-4,784	-2.0%
35	C, C	6,792	3.1%
36	D, BN	7,255	3.0%
37	BN, AN	2,890	1.3%
38	W, W	6,990	2.3%
39	BN, D	1,865	0.8%
40	D, C	6,864	2.8%
41	C, C	6,483	2.8%
42	C, C	4,337	1.7%
<b>Average</b>		<b>4,531</b>	<b>1.8%</b>
<b>Maximum</b>		<b>19,670</b>	<b>7.9%</b>
<b>Minimum</b>		<b>-6,068</b>	<b>-2.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-303. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 9 (SR9) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	18,100	-5.6%
2	W, W	15,628	-3.8%
3	C, C	47,348	-10.1%
4	C, C	20,267	-5.6%
5	AN, W	-8,997	5.2%
6	BN, AN	42,798	-12.4%
7	AN, W	-743	0.3%
8	D, D	38,857	-10.7%
9	W, W	69	0.0%
10	W, W	48,727	-13.2%
11	W, AN	-425	0.1%
12	D, D	34,858	-7.4%
13	W, W	15,215	-4.0%
14	D, D	39,291	-8.9%
15	C, C	26,369	-6.7%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
16	D, C	22,355	-7.0%
17	C, C	43,123	-10.8%
18	C, C	33,927	-10.0%
19	C, C	38,705	-12.8%
20	AN, W	-35,696	17.3%
21	C, C	31,413	-8.4%
22	W, W	3,059	-1.5%
23	W, W	4,738	-1.6%
24	W, W	20,328	-5.4%
25	W, W	41,262	-12.5%
26	W, AN	4,462	-1.0%
27	AN, AN	17,884	-4.2%
28	D, D	46,422	-9.7%
29	D, D	15,353	-4.0%
30	AN, BN	-5,931	1.8%
31	BN, D	19,134	-5.3%
32	AN, W	35,406	-8.9%
33	W, W	34,032	-9.7%
34	D, C	15,676	-3.4%
35	C, C	51,032	-11.7%
36	D, BN	29,134	-7.6%
37	BN, AN	3,801	-1.1%
38	W, W	28,968	-9.8%
39	BN, D	7,196	-1.8%
40	D, C	40,589	-10.7%
41	C, C	42,158	-10.1%
42	C, C	35,840	-10.6%
<b>Average</b>		<b>22,898</b>	<b>-5.8%</b>
<b>Maximum</b>		<b>51,032</b>	<b>17.3%</b>
<b>Minimum</b>		<b>-35,696</b>	<b>-13.2%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-304. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 10 (SR10) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	55,917	-64.3%
2	W, W	54,480	-60.5%
3	C, C	53,446	-59.3%
4	C, C	108,859	-485.1%
5	AN, W	87,570	520.1%
6	BN, AN	59,373	-87.8%
7	AN, W	58,464	-135.0%
8	D, D	79,615	-95.5%
9	W, W	86,371	-122.5%
10	W, W	72,257	-85.8%
11	W, AN	56,843	-48.0%
12	D, D	53,204	-43.9%
13	W, W	61,667	-75.0%
14	D, D	52,637	-46.2%
15	C, C	105,122	-102.6%
16	D, C	130,313	-169.8%
17	C, C	88,675	-148.3%
18	C, C	78,241	1,422.6%
19	C, C	69,411	583.7%
20	AN, W	53,341	273.5%
21	C, C	48,109	-148.9%
22	W, W	53,085	888.0%
23	W, W	61,144	-110.6%
24	W, W	60,334	-84.0%
25	W, W	60,271	-79.7%
26	W, AN	49,114	-38.5%
27	AN, AN	53,901	-52.2%
28	D, D	52,090	-47.8%
29	D, D	89,613	-90.5%
30	AN, BN	93,438	-100.6%
31	BN, D	63,377	-64.2%
32	AN, W	62,390	-60.7%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
33	W, W	60,624	-52.0%
34	D, C	55,763	-46.6%
35	C, C	112,827	-129.2%
36	D, BN	115,024	-137.3%
37	BN, AN	65,677	-90.8%
38	W, W	72,708	-64.7%
39	BN, D	61,236	-43.6%
40	D, C	58,463	-50.8%
41	C, C	58,230	-122.5%
42	C, C	68,104	-811.3%
<b>Average</b>		<b>70,032</b>	<b>-13.5%</b>
<b>Maximum</b>		<b>130,313</b>	<b>1,422.6%</b>
<b>Minimum</b>		<b>48,109</b>	<b>-811.3%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-305. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 11 (SR11) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	16,681	-40.2%
2	W, W	15,841	-34.0%
3	C, C	22,404	-112.6%
4	C, C	28,675	30.1%
5	AN, W	24,390	33.9%
6	BN, AN	17,218	54.8%
7	AN, W	17,683	235.7%
8	D, D	14,618	-74.1%
9	W, W	17,776	-90.9%
10	W, W	13,044	-41.2%
11	W, AN	28,647	-29.4%
12	D, D	17,289	-24.1%
13	W, W	20,775	-39.2%
14	D, D	26,742	-68.2%
15	C, C	33,563	155.3%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
16	D, C	26,508	46.1%
17	C, C	23,803	36.2%
18	C, C	22,233	27.3%
19	C, C	18,522	23.5%
20	AN, W	22,676	52.4%
21	C, C	17,373	37.7%
22	W, W	16,646	42.7%
23	W, W	15,199	-146.8%
24	W, W	13,197	-62.8%
25	W, W	16,371	-36.6%
26	W, AN	19,329	-18.5%
27	AN, AN	13,714	-27.2%
28	D, D	21,014	-44.5%
29	D, D	25,743	-72.6%
30	AN, BN	25,785	-75.4%
31	BN, D	28,849	-78.9%
32	AN, W	24,664	-48.8%
33	W, W	21,552	-32.8%
34	D, C	25,945	-36.3%
35	C, C	25,761	-551.5%
36	D, BN	29,493	161.9%
37	BN, AN	23,285	-316.2%
38	W, W	19,119	4,197.3%
39	BN, D	27,052	-32.2%
40	D, C	23,202	-172.3%
41	C, C	27,292	44.2%
42	C, C	30,637	33.7%
<b>Average</b>		<b>21,912</b>	<b>69.2%</b>
<b>Maximum</b>		<b>33,563</b>	<b>4,197.3%</b>
<b>Minimum</b>		<b>13,044</b>	<b>-551.5%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-306. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 12 (SR12) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	17,224	19.9%
2	W, W	17,724	22.8%
3	C, C	18,899	18.3%
4	C, C	18,141	10.5%
5	AN, W	15,512	8.3%
6	BN, AN	15,001	8.8%
7	AN, W	15,010	11.0%
8	D, D	16,251	13.9%
9	W, W	17,230	18.0%
10	W, W	16,562	21.2%
11	W, AN	16,507	26.7%
12	D, D	17,546	23.7%
13	W, W	18,186	22.8%
14	D, D	18,553	19.7%
15	C, C	20,785	14.6%
16	D, C	17,876	8.9%
17	C, C	16,866	7.9%
18	C, C	14,973	6.4%
19	C, C	12,463	5.3%
20	AN, W	13,980	6.9%
21	C, C	14,993	7.5%
22	W, W	15,819	9.0%
23	W, W	16,660	13.8%
24	W, W	17,855	15.4%
25	W, W	17,689	21.8%
26	W, AN	17,172	33.0%
27	AN, AN	19,055	22.9%
28	D, D	20,158	23.3%
29	D, D	21,374	21.4%
30	AN, BN	23,191	24.1%
31	BN, D	25,543	26.4%
32	AN, W	22,620	32.1%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
33	W, W	21,348	37.1%
34	D, C	20,476	28.8%
35	C, C	21,595	16.5%
36	D, BN	23,207	15.4%
37	BN, AN	21,269	19.4%
38	W, W	21,112	21.2%
39	BN, D	20,366	34.6%
40	D, C	20,064	16.6%
41	C, C	18,166	9.3%
42	C, C	16,365	7.5%
<b>Average</b>		<b>18,366</b>	<b>17.9%</b>
<b>Maximum</b>		<b>25,543</b>	<b>37.1%</b>
<b>Minimum</b>		<b>12,463</b>	<b>5.3%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-307. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 13 (SR13) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	42,279	7.4%
2	W, W	41,979	6.9%
3	C, C	38,457	6.2%
4	C, C	70,451	11.1%
5	AN, W	64,638	7.4%
6	BN, AN	53,808	7.8%
7	AN, W	43,470	6.1%
8	D, D	61,199	9.6%
9	W, W	58,887	8.8%
10	W, W	48,595	5.8%
11	W, AN	46,986	7.7%
12	D, D	46,968	8.1%
13	W, W	47,927	7.2%
14	D, D	48,436	8.2%
15	C, C	77,989	13.7%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
16	D, C	95,601	15.4%
17	C, C	69,703	11.3%
18	C, C	62,598	8.9%
19	C, C	60,794	8.4%
20	AN, W	53,157	7.4%
21	C, C	50,268	7.1%
22	W, W	51,584	6.7%
23	W, W	52,138	7.3%
24	W, W	50,971	6.1%
25	W, W	51,871	7.1%
26	W, AN	51,556	9.1%
27	AN, AN	52,813	8.1%
28	D, D	52,345	8.5%
29	D, D	75,983	12.4%
30	AN, BN	78,763	13.2%
31	BN, D	59,803	10.0%
32	AN, W	57,058	9.2%
33	W, W	56,315	8.7%
34	D, C	57,071	9.4%
35	C, C	89,538	14.4%
36	D, BN	90,090	14.8%
37	BN, AN	63,977	10.7%
38	W, W	62,758	8.6%
39	BN, D	61,816	9.6%
40	D, C	59,199	9.1%
41	C, C	53,794	7.8%
42	C, C	46,335	6.6%
<b>Average</b>		<b>58,571</b>	<b>9.0%</b>
<b>Maximum</b>		<b>95,601</b>	<b>15.4%</b>
<b>Minimum</b>		<b>38,457</b>	<b>5.8%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-308. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 14 (SR14) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	-2,215	-4.1%
2	W, W	-2,132	-4.1%
3	C, C	-936	-2.1%
4	C, C	-1,972	-4.4%
5	AN, W	-1,635	-1.5%
6	BN, AN	-1,042	-2.0%
7	AN, W	-2,171	-2.8%
8	D, D	-786	-1.6%
9	W, W	-2,055	-3.1%
10	W, W	-2,233	-1.6%
11	W, AN	-4,333	-7.5%
12	D, D	-1,156	-2.4%
13	W, W	-2,657	-3.3%
14	D, D	-1,382	-3.0%
15	C, C	-730	-1.7%
16	D, C	-519	-1.2%
17	C, C	-1,460	-3.6%
18	C, C	-2,098	-3.9%
19	C, C	-2,162	-4.3%
20	AN, W	-1,549	-1.7%
21	C, C	-1,917	-4.2%
22	W, W	-1,277	-1.2%
23	W, W	-1,248	-1.9%
24	W, W	-940	-1.2%
25	W, W	82	0.1%
26	W, AN	-165	-0.4%
27	AN, AN	-1,091	-2.1%
28	D, D	-1,212	-2.4%
29	D, D	-1,882	-4.2%
30	AN, BN	-1,772	-3.9%
31	BN, D	-1,928	-4.1%
32	AN, W	-1,057	-1.6%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
33	W, W	-681	-1.3%
34	D, C	-1,567	-3.3%
35	C, C	-1,819	-3.6%
36	D, BN	-2,104	-4.7%
37	BN, AN	-1,788	-3.3%
38	W, W	-629	-0.9%
39	BN, D	-1,229	-2.7%
40	D, C	-2,000	-4.3%
41	C, C	-1,904	-4.4%
42	C, C	-1,652	-3.8%
<b>Average</b>		<b>-1,548</b>	<b>-2.8%</b>
<b>Maximum</b>		<b>82</b>	<b>0.1%</b>
<b>Minimum</b>		<b>-4,333</b>	<b>-7.5%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-309. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 15 (SR15) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	73,013	14.6%
2	W, W	75,409	19.1%
3	C, C	73,783	16.5%
4	C, C	72,510	15.9%
5	AN, W	84,175	8.2%
6	BN, AN	74,971	15.8%
7	AN, W	125,160	15.3%
8	D, D	81,108	20.4%
9	W, W	129,738	19.4%
10	W, W	147,569	27.0%
11	W, AN	113,169	29.1%
12	D, D	85,840	20.9%
13	W, W	135,955	23.9%
14	D, D	102,612	25.4%
15	C, C	88,264	24.5%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
16	D, C	93,591	23.2%
17	C, C	85,073	19.7%
18	C, C	83,274	17.4%
19	C, C	78,225	16.5%
20	AN, W	73,514	14.8%
21	C, C	72,003	13.9%
22	W, W	129,152	13.5%
23	W, W	117,908	17.2%
24	W, W	141,378	23.2%
25	W, W	130,437	25.1%
26	W, AN	95,995	27.2%
27	AN, AN	94,290	22.1%
28	D, D	87,998	21.1%
29	D, D	88,812	23.5%
30	AN, BN	91,308	22.6%
31	BN, D	89,911	22.4%
32	AN, W	97,075	15.5%
33	W, W	181,795	27.4%
34	D, C	98,548	23.4%
35	C, C	93,334	23.5%
36	D, BN	89,955	20.7%
37	BN, AN	105,596	13.9%
38	W, W	182,826	23.5%
39	BN, D	107,592	21.6%
40	D, C	92,143	22.5%
41	C, C	79,394	16.4%
42	C, C	77,169	16.1%
<b>Average</b>		<b>100,514</b>	<b>20.1%</b>
<b>Maximum</b>		<b>182,826</b>	<b>29.1%</b>
<b>Minimum</b>		<b>72,003</b>	<b>8.2%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-310. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 16 (SR16) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	3,784	11.3%
2	W, W	4,051	14.0%
3	C, C	4,015	8.0%
4	C, C	3,643	4.8%
5	AN, W	4,343	6.4%
6	BN, AN	4,398	10.5%
7	AN, W	4,332	11.4%
8	D, D	4,784	11.7%
9	W, W	4,781	13.1%
10	W, W	5,198	17.0%
11	W, AN	5,556	33.5%
12	D, D	5,609	20.9%
13	W, W	6,886	25.8%
14	D, D	6,810	25.1%
15	C, C	6,409	15.3%
16	D, C	7,444	13.6%
17	C, C	6,781	10.6%
18	C, C	7,129	9.8%
19	C, C	6,742	9.2%
20	AN, W	6,920	12.0%
21	C, C	6,882	12.1%
22	W, W	7,780	15.8%
23	W, W	7,530	17.8%
24	W, W	7,363	21.0%
25	W, W	8,083	25.5%
26	W, AN	8,180	33.2%
27	AN, AN	8,139	29.5%
28	D, D	8,454	20.3%
29	D, D	9,222	17.8%
30	AN, BN	8,959	15.7%
31	BN, D	9,048	16.6%
32	AN, W	8,546	20.7%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
33	W, W	8,993	31.9%
34	D, C	9,085	19.2%
35	C, C	8,888	14.8%
36	D, BN	8,931	14.4%
37	BN, AN	9,093	16.2%
38	W, W	8,944	26.9%
39	BN, D	9,236	19.5%
40	D, C	8,753	11.2%
41	C, C	9,161	9.6%
42	C, C	3,459	3.7%
<b>Average</b>		<b>6,961</b>	<b>16.6%</b>
<b>Maximum</b>		<b>9,236</b>	<b>33.5%</b>
<b>Minimum</b>		<b>3,459</b>	<b>3.7%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-311. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 17 (SR17) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	4,354	21.4%
2	W, W	4,135	8.8%
3	C, C	3,837	3.5%
4	C, C	543	0.5%
5	AN, W	5,470	5.2%
6	BN, AN	5,108	68.6%
7	AN, W	5,387	-15.7%
8	D, D	5,043	43.3%
9	W, W	5,015	19.5%
10	W, W	6,778	-13.9%
11	W, AN	6,784	-6.8%
12	D, D	6,778	-84.7%
13	W, W	7,508	-55.4%
14	D, D	7,603	118.0%
15	C, C	4,301	7.9%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
16	D, C	1,004	1.7%
17	C, C	285	0.4%
18	C, C	536	0.6%
19	C, C	149	0.2%
20	AN, W	6,595	5.5%
21	C, C	6,605	5.0%
22	W, W	7,914	11.2%
23	W, W	9,556	27.3%
24	W, W	9,182	-60.9%
25	W, W	8,722	-383.0%
26	W, AN	8,787	-46.6%
27	AN, AN	8,714	50.2%
28	D, D	8,118	14.2%
29	D, D	5,411	7.8%
30	AN, BN	6,734	8.3%
31	BN, D	5,114	5.4%
32	AN, W	11,493	15.6%
33	W, W	13,903	47.1%
34	D, C	12,672	19.7%
35	C, C	6,910	8.2%
36	D, BN	5,773	6.3%
37	BN, AN	11,768	8.7%
38	W, W	16,041	21.9%
39	BN, D	11,535	22.4%
40	D, C	5,378	4.5%
41	C, C	4,700	3.5%
42	C, C	112	0.2%
<b>Average</b>		<b>6,485</b>	<b>-1.8%</b>
<b>Maximum</b>		<b>16,041</b>	<b>118.0%</b>
<b>Minimum</b>		<b>112</b>	<b>-383.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-312. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 18 (SR18) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	29,792	-53.2%
2	W, W	24,440	-34.1%
3	C, C	17,464	-53.4%
4	C, C	9,258	22.4%
5	AN, W	16,754	12.9%
6	BN, AN	62,162	-30.1%
7	AN, W	51,428	-21.5%
8	D, D	52,882	-18.3%
9	W, W	63,443	-21.2%
10	W, W	83,029	-7.8%
11	W, AN	84,961	-7.2%
12	D, D	76,332	-10.9%
13	W, W	87,312	-11.3%
14	D, D	82,397	-11.8%
15	C, C	74,152	-19.5%
16	D, C	72,791	-45.6%
17	C, C	44,071	-746.3%
18	C, C	28,690	53.1%
19	C, C	18,204	24.7%
20	AN, W	18,905	18.0%
21	C, C	18,673	216.9%
22	W, W	51,139	171.2%
23	W, W	93,419	-31.0%
24	W, W	108,115	-48.2%
25	W, W	111,107	-22.1%
26	W, AN	91,215	-11.4%
27	AN, AN	86,176	-15.4%
28	D, D	90,322	-20.5%
29	D, D	82,514	-39.2%
30	AN, BN	81,207	-109.3%
31	BN, D	50,957	-143.2%
32	AN, W	83,084	-119.9%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
33	W, W	107,733	-57.9%
34	D, C	87,792	-55.4%
35	C, C	32,730	64.9%
36	D, BN	25,197	32.6%
37	BN, AN	27,810	33.2%
38	W, W	129,367	-55.3%
39	BN, D	116,006	-43.7%
40	D, C	57,582	-165.5%
41	C, C	15,874	25.5%
42	C, C	12,719	13.3%
<b>Average</b>		<b>60,933</b>	<b>-31.9%</b>
<b>Maximum</b>		<b>129,367</b>	<b>216.9%</b>
<b>Minimum</b>		<b>9,258</b>	<b>-746.3%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-313. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 19 (SR19) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	1	0.0%
2	W, W	0	0.0%
3	C, C	0	0.0%
4	C, C	0	0.0%
5	AN, W	2	0.0%
6	BN, AN	1	0.0%
7	AN, W	2	0.0%
8	D, D	1	0.0%
9	W, W	1	0.0%
10	W, W	5	0.0%
11	W, AN	2	0.0%
12	D, D	0	0.0%
13	W, W	0	0.0%
14	D, D	0	0.0%
15	C, C	2	0.2%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
16	D, C	0	0.0%
17	C, C	0	0.0%
18	C, C	0	0.0%
19	C, C	0	0.0%
20	AN, W	0	0.0%
21	C, C	0	0.0%
22	W, W	6	-0.1%
23	W, W	5	-0.8%
24	W, W	7	-0.2%
25	W, W	2	0.0%
26	W, AN	4	0.0%
27	AN, AN	3	1.6%
28	D, D	2	0.2%
29	D, D	-1	-0.1%
30	AN, BN	0	0.0%
31	BN, D	0	0.0%
32	AN, W	7	0.3%
33	W, W	11	-0.2%
34	D, C	7	-0.1%
35	C, C	1	0.1%
36	D, BN	0	0.0%
37	BN, AN	0	0.0%
38	W, W	10	-0.4%
39	BN, D	6	-1.1%
40	D, C	0	0.0%
41	C, C	0	0.0%
42	C, C	0	0.0%
<b>Average</b>		<b>2</b>	<b>0.0%</b>
<b>Maximum</b>		<b>11</b>	<b>1.6%</b>
<b>Minimum</b>		<b>-1</b>	<b>-1.1%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-314. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 20 (SR20) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	1	0.0%
2	W, W	1	0.0%
3	C, C	1	0.0%
4	C, C	1	0.0%
5	AN, W	1	0.0%
6	BN, AN	1	0.0%
7	AN, W	1	0.0%
8	D, D	2	0.0%
9	W, W	2	0.0%
10	W, W	2	0.0%
11	W, AN	2	0.0%
12	D, D	2	0.0%
13	W, W	2	0.0%
14	D, D	3	0.0%
15	C, C	3	0.0%
16	D, C	3	0.0%
17	C, C	3	0.0%
18	C, C	3	0.0%
19	C, C	3	0.0%
20	AN, W	3	0.0%
21	C, C	3	0.0%
22	W, W	3	0.0%
23	W, W	3	0.0%
24	W, W	5	0.0%
25	W, W	5	0.0%
26	W, AN	5	0.0%
27	AN, AN	6	0.0%
28	D, D	6	0.0%
29	D, D	7	0.0%
30	AN, BN	7	0.0%
31	BN, D	7	0.0%
32	AN, W	7	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
33	W, W	7	0.0%
34	D, C	8	0.0%
35	C, C	8	0.0%
36	D, BN	8	0.0%
37	BN, AN	8	0.0%
38	W, W	10	0.0%
39	BN, D	9	0.0%
40	D, C	9	0.0%
41	C, C	9	0.0%
42	C, C	9	0.0%
<b>Average</b>		<b>4</b>	<b>0.0%</b>
<b>Maximum</b>		<b>10</b>	<b>0.0%</b>
<b>Minimum</b>		<b>1</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-315. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 21 (SR21) for Alternative 3 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	-1	0.0%
3	C, C	0	0.0%
4	C, C	0	0.0%
5	AN, W	0	0.0%
6	BN, AN	0	0.0%
7	AN, W	2	0.0%
8	D, D	1	0.0%
9	W, W	1	0.0%
10	W, W	23	0.0%
11	W, AN	10	0.0%
12	D, D	1	0.0%
13	W, W	9	0.0%
14	D, D	1	0.0%
15	C, C	0	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt3 minus NAA (TAF)	Alt3 minus NAA (% Difference)
16	D, C	-1	0.0%
17	C, C	0	0.0%
18	C, C	-1	0.0%
19	C, C	-1	0.0%
20	AN, W	-1	0.0%
21	C, C	-2	0.0%
22	W, W	1	0.0%
23	W, W	8	0.0%
24	W, W	9	0.0%
25	W, W	33	0.0%
26	W, AN	25	0.0%
27	AN, AN	7	0.0%
28	D, D	2	0.0%
29	D, D	-1	0.0%
30	AN, BN	-3	0.0%
31	BN, D	-3	0.0%
32	AN, W	6	0.0%
33	W, W	35	0.0%
34	D, C	11	0.0%
35	C, C	0	0.0%
36	D, BN	-2	0.0%
37	BN, AN	-1	0.0%
38	W, W	6	0.0%
39	BN, D	8	0.0%
40	D, C	-2	0.0%
41	C, C	0	0.0%
42	C, C	0	0.0%
<b>Average</b>		<b>4</b>	<b>0.0%</b>
<b>Maximum</b>		<b>35</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-3</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

**I-1.2.8 Changes in Groundwater-Surface Water Interaction Flow, Alternative 4 Compared to No Action Alternative**

Table I.1-316 through Table I.1-336 provide the annual simulated groundwater-surface water interaction flow through the model simulation period for each of the 21 model subregions for Alternative 4 compared to the No Action Alternative.

Table I.1-316. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 1 (SR1) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	1,660	-0.6%
2	W, W	-313	0.1%
3	C, C	-274	0.1%
4	C, C	6,434	-2.5%
5	AN, W	3,905	-1.7%
6	BN, AN	3,766	-1.5%
7	AN, W	-2,456	1.0%
8	D, D	57	0.0%
9	W, W	952	-0.4%
10	W, W	-1,567	0.5%
11	W, AN	-1,278	0.4%
12	D, D	24	0.0%
13	W, W	346	-0.1%
14	D, D	467	-0.2%
15	C, C	-718	0.3%
16	D, C	1,425	-0.6%
17	C, C	622	-0.3%
18	C, C	5,383	-2.7%
19	C, C	9,202	-4.8%
20	AN, W	-165	0.1%
21	C, C	984	-0.4%
22	W, W	652	-0.3%
23	W, W	-721	0.3%
24	W, W	2,203	-0.8%
25	W, W	-50	0.0%
26	W, AN	-1,759	0.6%
27	AN, AN	2,226	-0.7%
28	D, D	287	-0.1%
29	D, D	614	-0.2%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
30	AN, BN	-504	0.2%
31	BN, D	-418	0.1%
32	AN, W	628	-0.2%
33	W, W	1,443	-0.5%
34	D, C	-2,749	0.9%
35	C, C	1,677	-0.6%
36	D, BN	-2	0.0%
37	BN, AN	-135	0.1%
38	W, W	134	-0.1%
39	BN, D	-660	0.2%
40	D, C	844	-0.3%
41	C, C	2,694	-1.1%
42	C, C	15,197	-7.2%
<b>Average</b>		<b>1,192</b>	<b>-0.5%</b>
<b>Maximum</b>		<b>15,197</b>	<b>1.0%</b>
<b>Minimum</b>		<b>-2,749</b>	<b>-7.2%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-317. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 2 (SR2) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	2,871	3.0%
2	W, W	-772	-1.7%
3	C, C	-213	-1.6%
4	C, C	60	-0.5%
5	AN, W	893	0.2%
6	BN, AN	7,379	5.4%
7	AN, W	-4,224	-2.3%
8	D, D	86	0.1%
9	W, W	904	0.6%
10	W, W	-1,972	-12.5%
11	W, AN	-1,837	5.9%
12	D, D	-67	-0.2%
13	W, W	1,205	1.8%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
14	D, D	997	1.5%
15	C, C	344	0.2%
16	D, C	7,048	3.5%
17	C, C	2,190	1.9%
18	C, C	-264	-0.2%
19	C, C	7,179	2.8%
20	AN, W	-268	-0.1%
21	C, C	1,956	2.2%
22	W, W	4,769	1.7%
23	W, W	692	0.5%
24	W, W	4,414	5.5%
25	W, W	272	0.3%
26	W, AN	-3,575	-111.3%
27	AN, AN	4,281	9.1%
28	D, D	499	1.5%
29	D, D	1,383	1.2%
30	AN, BN	-848	-0.5%
31	BN, D	-701	-0.9%
32	AN, W	1,496	1.9%
33	W, W	2,511	6.8%
34	D, C	-4,364	-19.0%
35	C, C	2,638	3.0%
36	D, BN	844	0.7%
37	BN, AN	-832	-0.4%
38	W, W	1,518	0.9%
39	BN, D	-1,013	-1.6%
40	D, C	906	0.7%
41	C, C	-3,922	-3.5%
42	C, C	4,158	1.9%
<b>Average</b>		<b>919</b>	<b>-2.2%</b>
<b>Maximum</b>		<b>7,379</b>	<b>9.1%</b>
<b>Minimum</b>		<b>-4,364</b>	<b>-111.3%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-318. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 3 (SR3) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	342	-0.4%
2	W, W	312	-0.3%
3	C, C	335	-0.4%
4	C, C	5,376	-8.2%
5	AN, W	7,104	-14.5%
6	BN, AN	2,632	-3.8%
7	AN, W	918	-1.3%
8	D, D	959	-1.2%
9	W, W	537	-0.6%
10	W, W	655	-0.6%
11	W, AN	611	-0.5%
12	D, D	585	-0.6%
13	W, W	782	-0.9%
14	D, D	1,166	-1.4%
15	C, C	1,872	-2.4%
16	D, C	3,653	-5.2%
17	C, C	1,336	-2.0%
18	C, C	6,576	-13.2%
19	C, C	8,777	-22.1%
20	AN, W	2,757	-6.2%
21	C, C	2,541	-3.8%
22	W, W	3,594	-6.2%
23	W, W	2,745	-3.6%
24	W, W	2,299	-2.6%
25	W, W	1,863	-2.1%
26	W, AN	1,657	-1.6%
27	AN, AN	1,687	-1.8%
28	D, D	1,460	-1.6%
29	D, D	1,278	-1.5%
30	AN, BN	924	-1.1%
31	BN, D	905	-1.0%
32	AN, W	922	-1.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
33	W, W	803	-0.8%
34	D, C	668	-0.7%
35	C, C	1,127	-1.3%
36	D, BN	1,344	-1.8%
37	BN, AN	421	-0.6%
38	W, W	486	-0.5%
39	BN, D	559	-0.6%
40	D, C	748	-0.9%
41	C, C	7,162	-10.2%
42	C, C	14,004	-28.9%
<b>Average</b>		<b>2,297</b>	<b>-3.8%</b>
<b>Maximum</b>		<b>14,004</b>	<b>-0.3%</b>
<b>Minimum</b>		<b>312</b>	<b>-28.9%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-319. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 4 (SR4) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	5,868	-1.4%
2	W, W	-1,644	0.4%
3	C, C	-411	0.1%
4	C, C	17,135	-5.9%
5	AN, W	13,272	-4.3%
6	BN, AN	17,485	-4.5%
7	AN, W	-6,113	1.5%
8	D, D	-1,692	0.5%
9	W, W	7,508	-1.7%
10	W, W	2,014	-0.4%
11	W, AN	-2,020	0.4%
12	D, D	1,424	-0.4%
13	W, W	2,913	-0.7%
14	D, D	712	-0.2%
15	C, C	218	-0.1%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
16	D, C	6,453	-1.9%
17	C, C	1,045	-0.3%
18	C, C	17,056	-5.4%
19	C, C	27,387	-9.5%
20	AN, W	2,805	-0.8%
21	C, C	7,330	-2.2%
22	W, W	6,683	-1.7%
23	W, W	-66	0.0%
24	W, W	8,561	-2.2%
25	W, W	2,287	-0.6%
26	W, AN	-5,787	1.3%
27	AN, AN	11,874	-3.0%
28	D, D	2,464	-0.6%
29	D, D	3,244	-0.8%
30	AN, BN	450	-0.1%
31	BN, D	-1,844	0.5%
32	AN, W	5,067	-1.2%
33	W, W	5,297	-1.2%
34	D, C	-6,974	1.9%
35	C, C	5,193	-1.3%
36	D, BN	1,339	-0.4%
37	BN, AN	1,348	-0.4%
38	W, W	3,152	-0.8%
39	BN, D	-2,512	0.7%
40	D, C	2,932	-0.8%
41	C, C	9,143	-2.7%
42	C, C	45,031	-14.9%
<b>Average</b>		<b>5,134</b>	<b>-1.5%</b>
<b>Maximum</b>		<b>45,031</b>	<b>1.9%</b>
<b>Minimum</b>		<b>-6,974</b>	<b>-14.9%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-320. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 5 (SR5) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	-814	0.2%
2	W, W	-579	0.1%
3	C, C	-93	0.0%
4	C, C	-5,182	2.2%
5	AN, W	2,522	-1.6%
6	BN, AN	-2,474	0.8%
7	AN, W	470	-0.1%
8	D, D	-5,984	1.7%
9	W, W	4,690	-1.1%
10	W, W	3,476	-0.6%
11	W, AN	-1,872	0.4%
12	D, D	-2,884	0.7%
13	W, W	7,151	-1.7%
14	D, D	-2,308	0.6%
15	C, C	1,894	-0.6%
16	D, C	-6,336	2.3%
17	C, C	-2,462	0.7%
18	C, C	963	-0.4%
19	C, C	-1,471	0.7%
20	AN, W	6,391	-2.4%
21	C, C	-1,127	0.3%
22	W, W	2,084	-0.6%
23	W, W	1,709	-0.4%
24	W, W	-847	0.2%
25	W, W	-261	0.1%
26	W, AN	108	0.0%
27	AN, AN	104	0.0%
28	D, D	-5,758	1.4%
29	D, D	8,590	-2.3%
30	AN, BN	-851	0.3%
31	BN, D	522	-0.1%
32	AN, W	1,105	-0.3%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
33	W, W	-766	0.2%
34	D, C	8,695	-2.1%
35	C, C	-953	0.2%
36	D, BN	4,160	-1.4%
37	BN, AN	1,250	-0.4%
38	W, W	-333	0.1%
39	BN, D	-685	0.2%
40	D, C	934	-0.2%
41	C, C	4,887	-1.7%
42	C, C	15,516	-7.3%
<b>Average</b>		<b>790</b>	<b>-0.3%</b>
<b>Maximum</b>		<b>15,516</b>	<b>2.3%</b>
<b>Minimum</b>		<b>-6,336</b>	<b>-7.3%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-321. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 6 (SR6) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	920	1.6%
2	W, W	-135	-0.2%
3	C, C	-228	-0.2%
4	C, C	-1,114	-0.8%
5	AN, W	-73	0.0%
6	BN, AN	642	0.4%
7	AN, W	273	0.3%
8	D, D	-1,216	-0.8%
9	W, W	1,319	2.2%
10	W, W	-99	0.5%
11	W, AN	-1,006	-3.5%
12	D, D	321	0.5%
13	W, W	1,741	3.8%
14	D, D	-783	-0.7%
15	C, C	-379	-0.3%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
16	D, C	1,084	0.7%
17	C, C	-1,461	-1.2%
18	C, C	-4,928	-2.8%
19	C, C	-2,100	-1.0%
20	AN, W	-3,025	-1.2%
21	C, C	-345	-0.2%
22	W, W	509	0.3%
23	W, W	-298	-0.2%
24	W, W	773	0.8%
25	W, W	202	0.3%
26	W, AN	-836	-1.4%
27	AN, AN	1,183	1.4%
28	D, D	-169	-0.2%
29	D, D	870	0.8%
30	AN, BN	60	0.1%
31	BN, D	-246	-0.3%
32	AN, W	799	1.2%
33	W, W	428	1.0%
34	D, C	-334	-0.3%
35	C, C	380	0.4%
36	D, BN	-628	-0.5%
37	BN, AN	776	0.6%
38	W, W	-457	-0.6%
39	BN, D	-804	-0.7%
40	D, C	22	0.0%
41	C, C	-3,135	-2.3%
42	C, C	-753	-0.3%
<b>Average</b>		<b>-292</b>	<b>-0.1%</b>
<b>Maximum</b>		<b>1,741</b>	<b>3.8%</b>
<b>Minimum</b>		<b>-4,928</b>	<b>-3.5%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-322. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 7 (SR7) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	-960	6.6%
2	W, W	-161	0.7%
3	C, C	280	-1.6%
4	C, C	-4,353	-14.0%
5	AN, W	1,362	3.0%
6	BN, AN	-274	-11.1%
7	AN, W	-659	8.3%
8	D, D	-1,060	-14.8%
9	W, W	1,454	34.2%
10	W, W	55	-0.1%
11	W, AN	-1,418	4.3%
12	D, D	-601	1.9%
13	W, W	2,179	-6.2%
14	D, D	-1,561	12.9%
15	C, C	-47	4.5%
16	D, C	1,212	6.7%
17	C, C	-828	40.5%
18	C, C	-5,020	-22.2%
19	C, C	948	3.6%
20	AN, W	-985	-3.6%
21	C, C	-1,741	-24.0%
22	W, W	-294	-1.2%
23	W, W	-917	-5.3%
24	W, W	349	-4.3%
25	W, W	258	-2.9%
26	W, AN	119	-0.8%
27	AN, AN	416	-3.9%
28	D, D	-838	5.1%
29	D, D	1,187	-2,039.0%
30	AN, BN	-244	-1.7%
31	BN, D	357	7.7%
32	AN, W	-194	9.6%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
33	W, W	-539	11.6%
34	D, C	1,500	-56.8%
35	C, C	-2,368	-89.5%
36	D, BN	608	2.5%
37	BN, AN	65	0.4%
38	W, W	55	0.6%
39	BN, D	-124	-1.3%
40	D, C	-243	-5.5%
41	C, C	-1,572	-5.3%
42	C, C	-2,128	-5.1%
<b>Average</b>		<b>-398</b>	<b>-51.3%</b>
<b>Maximum</b>		<b>2,179</b>	<b>40.5%</b>
<b>Minimum</b>		<b>-5,020</b>	<b>-2,039.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-323. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 8 (SR8) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	-693	-0.3%
2	W, W	-96	0.0%
3	C, C	182	0.1%
4	C, C	-2,096	-1.0%
5	AN, W	1,218	0.4%
6	BN, AN	52	0.0%
7	AN, W	-992	-0.3%
8	D, D	344	0.1%
9	W, W	706	0.2%
10	W, W	96	0.0%
11	W, AN	-540	-0.3%
12	D, D	-261	-0.2%
13	W, W	469	0.2%
14	D, D	-561	-0.3%
15	C, C	-97	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
16	D, C	656	0.3%
17	C, C	-31	0.0%
18	C, C	-1,963	-0.8%
19	C, C	1,594	0.6%
20	AN, W	354	0.1%
21	C, C	-649	-0.3%
22	W, W	98	0.0%
23	W, W	-723	-0.2%
24	W, W	128	0.0%
25	W, W	13	0.0%
26	W, AN	-89	0.0%
27	AN, AN	231	0.1%
28	D, D	-146	-0.1%
29	D, D	161	0.1%
30	AN, BN	-129	-0.1%
31	BN, D	344	0.2%
32	AN, W	-584	-0.2%
33	W, W	230	0.1%
34	D, C	687	0.3%
35	C, C	-1,027	-0.5%
36	D, BN	322	0.1%
37	BN, AN	387	0.2%
38	W, W	99	0.0%
39	BN, D	304	0.1%
40	D, C	-166	-0.1%
41	C, C	-207	-0.1%
42	C, C	-921	-0.4%
<b>Average</b>		<b>-78</b>	<b>0.0%</b>
<b>Maximum</b>		<b>1,594</b>	<b>0.6%</b>
<b>Minimum</b>		<b>-2,096</b>	<b>-1.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-324. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 9 (SR9) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	546	-0.2%
2	W, W	-1,875	0.5%
3	C, C	-785	0.2%
4	C, C	-7,862	2.2%
5	AN, W	4,820	-2.8%
6	BN, AN	3,685	-1.1%
7	AN, W	-2,168	0.8%
8	D, D	-4,306	1.2%
9	W, W	6,794	-2.5%
10	W, W	-27	0.0%
11	W, AN	-4,127	0.9%
12	D, D	834	-0.2%
13	W, W	3,420	-0.9%
14	D, D	-4,609	1.0%
15	C, C	-1,200	0.3%
16	D, C	3,530	-1.1%
17	C, C	4,839	-1.2%
18	C, C	-1,205	0.4%
19	C, C	12,149	-4.0%
20	AN, W	-13,755	6.7%
21	C, C	-2,611	0.7%
22	W, W	-2,367	1.2%
23	W, W	-3,896	1.3%
24	W, W	1,120	-0.3%
25	W, W	-600	0.2%
26	W, AN	-4,435	1.0%
27	AN, AN	3,771	-0.9%
28	D, D	-4,261	0.9%
29	D, D	5,428	-1.4%
30	AN, BN	-1,828	0.5%
31	BN, D	-1,052	0.3%
32	AN, W	1,111	-0.3%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
33	W, W	-2,574	0.7%
34	D, C	438	-0.1%
35	C, C	-2,990	0.7%
36	D, BN	-89	0.0%
37	BN, AN	4,306	-1.3%
38	W, W	-1,280	0.4%
39	BN, D	-1,783	0.4%
40	D, C	560	-0.1%
41	C, C	-10,046	2.4%
42	C, C	4,051	-1.2%
<b>Average</b>		<b>-484</b>	<b>0.1%</b>
<b>Maximum</b>		<b>12,149</b>	<b>6.7%</b>
<b>Minimum</b>		<b>-13,755</b>	<b>-4.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-325. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 10 (SR10) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	-1,434	1.6%
2	W, W	-486	0.5%
3	C, C	-327	0.4%
4	C, C	-21,289	94.9%
5	AN, W	-11,662	-69.3%
6	BN, AN	-4,144	6.1%
7	AN, W	-3,585	8.3%
8	D, D	-2,282	2.7%
9	W, W	-1,255	1.8%
10	W, W	-990	1.2%
11	W, AN	-887	0.7%
12	D, D	-1,421	1.2%
13	W, W	129	-0.2%
14	D, D	-330	0.3%
15	C, C	-388	0.4%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
16	D, C	688	-0.9%
17	C, C	928	-1.6%
18	C, C	-1,502	-27.3%
19	C, C	-1,649	-13.9%
20	AN, W	-378	-1.9%
21	C, C	-1,391	4.3%
22	W, W	-2,619	-43.8%
23	W, W	-1,322	2.4%
24	W, W	-1,131	1.6%
25	W, W	-2,528	3.3%
26	W, AN	-1,946	1.5%
27	AN, AN	-1,596	1.5%
28	D, D	-1,183	1.1%
29	D, D	-1,176	1.2%
30	AN, BN	-321	0.3%
31	BN, D	-856	0.9%
32	AN, W	-3,034	2.9%
33	W, W	-2,836	2.4%
34	D, C	-1,421	1.2%
35	C, C	-1,091	1.2%
36	D, BN	-640	0.8%
37	BN, AN	0	0.0%
38	W, W	1,047	-0.9%
39	BN, D	647	-0.5%
40	D, C	-920	0.8%
41	C, C	-12,916	27.2%
42	C, C	-8,929	106.4%
<b>Average</b>		<b>-2,344</b>	<b>2.9%</b>
<b>Maximum</b>		<b>1,047</b>	<b>106.4%</b>
<b>Minimum</b>		<b>-21,289</b>	<b>-69.3%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-326. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 11 (SR11) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	-837	2.0%
2	W, W	-612	1.3%
3	C, C	-622	3.1%
4	C, C	18,083	19.0%
5	AN, W	-12,343	-17.2%
6	BN, AN	-566	-1.8%
7	AN, W	-1,231	-16.4%
8	D, D	-227	1.2%
9	W, W	-1,326	6.8%
10	W, W	-1,115	3.5%
11	W, AN	-378	0.4%
12	D, D	-831	1.2%
13	W, W	-2,488	4.7%
14	D, D	1,555	-4.0%
15	C, C	336	1.6%
16	D, C	224	0.4%
17	C, C	313	0.5%
18	C, C	1,051	1.3%
19	C, C	-640	-0.8%
20	AN, W	-1,059	-2.4%
21	C, C	-2,508	-5.4%
22	W, W	-2,422	-6.2%
23	W, W	-1,258	12.2%
24	W, W	-4,514	21.5%
25	W, W	5,753	-12.9%
26	W, AN	1,263	-1.2%
27	AN, AN	-1,127	2.2%
28	D, D	742	-1.6%
29	D, D	-19	0.1%
30	AN, BN	78	-0.2%
31	BN, D	-125	0.3%
32	AN, W	4,178	-8.3%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
33	W, W	-3,991	6.1%
34	D, C	298	-0.4%
35	C, C	-341	7.3%
36	D, BN	-215	-1.2%
37	BN, AN	386	-5.2%
38	W, W	113	24.8%
39	BN, D	24	0.0%
40	D, C	116	-0.9%
41	C, C	17,106	27.7%
42	C, C	-13,170	-14.5%
<b>Average</b>		<b>-56</b>	<b>1.2%</b>
<b>Maximum</b>		<b>18,083</b>	<b>27.7%</b>
<b>Minimum</b>		<b>-13,170</b>	<b>-17.2%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-327. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 12 (SR12) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	-568	-0.7%
2	W, W	-438	-0.6%
3	C, C	-315	-0.3%
4	C, C	-708	-0.4%
5	AN, W	-594	-0.3%
6	BN, AN	-348	-0.2%
7	AN, W	-344	-0.3%
8	D, D	-278	-0.2%
9	W, W	-197	-0.2%
10	W, W	-90	-0.1%
11	W, AN	-78	-0.1%
12	D, D	-229	-0.3%
13	W, W	-245	-0.3%
14	D, D	32	0.0%
15	C, C	61	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
16	D, C	141	0.1%
17	C, C	414	0.2%
18	C, C	1,189	0.5%
19	C, C	-570	-0.2%
20	AN, W	420	0.2%
21	C, C	387	0.2%
22	W, W	-246	-0.1%
23	W, W	-481	-0.4%
24	W, W	-333	-0.3%
25	W, W	-367	-0.5%
26	W, AN	-464	-0.9%
27	AN, AN	-428	-0.5%
28	D, D	-355	-0.4%
29	D, D	-312	-0.3%
30	AN, BN	-137	-0.1%
31	BN, D	-202	-0.2%
32	AN, W	-548	-0.8%
33	W, W	-535	-0.9%
34	D, C	-554	-0.8%
35	C, C	-922	-0.7%
36	D, BN	-56	0.0%
37	BN, AN	178	0.2%
38	W, W	114	0.1%
39	BN, D	119	0.2%
40	D, C	-19	0.0%
41	C, C	-450	-0.2%
42	C, C	-50	0.0%
<b>Average</b>		<b>-200</b>	<b>-0.2%</b>
<b>Maximum</b>		<b>1,189</b>	<b>0.5%</b>
<b>Minimum</b>		<b>-922</b>	<b>-0.9%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-328. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 13 (SR13) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	-166	0.0%
2	W, W	-280	0.0%
3	C, C	-293	0.0%
4	C, C	-11,944	-1.9%
5	AN, W	-6,965	-0.8%
6	BN, AN	-2,721	-0.4%
7	AN, W	-1,842	-0.3%
8	D, D	-1,057	-0.2%
9	W, W	-867	-0.1%
10	W, W	-820	-0.1%
11	W, AN	-725	-0.1%
12	D, D	-595	-0.1%
13	W, W	-502	-0.1%
14	D, D	-373	-0.1%
15	C, C	-270	0.0%
16	D, C	-88	0.0%
17	C, C	-54	0.0%
18	C, C	-1,330	-0.2%
19	C, C	-1,455	-0.2%
20	AN, W	-309	0.0%
21	C, C	200	0.0%
22	W, W	-325	0.0%
23	W, W	-297	0.0%
24	W, W	-432	-0.1%
25	W, W	-468	-0.1%
26	W, AN	-614	-0.1%
27	AN, AN	-621	-0.1%
28	D, D	-718	-0.1%
29	D, D	-641	-0.1%
30	AN, BN	-662	-0.1%
31	BN, D	-573	-0.1%
32	AN, W	-366	-0.1%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
33	W, W	-613	-0.1%
34	D, C	-586	-0.1%
35	C, C	-475	-0.1%
36	D, BN	-512	-0.1%
37	BN, AN	-354	-0.1%
38	W, W	-253	0.0%
39	BN, D	-62	0.0%
40	D, C	-267	0.0%
41	C, C	-7,355	-1.1%
42	C, C	-5,381	-0.8%
<b>Average</b>		<b>-1,286</b>	<b>-0.2%</b>
<b>Maximum</b>		<b>200</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-11,944</b>	<b>-1.9%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-329. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 14 (SR14) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	-45	-0.1%
2	W, W	-43	-0.1%
3	C, C	172	0.4%
4	C, C	-9	0.0%
5	AN, W	-5	0.0%
6	BN, AN	121	0.2%
7	AN, W	15	0.0%
8	D, D	-10	0.0%
9	W, W	-15	0.0%
10	W, W	5	0.0%
11	W, AN	430	0.7%
12	D, D	151	0.3%
13	W, W	-121	-0.1%
14	D, D	-254	-0.6%
15	C, C	8	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
16	D, C	4	0.0%
17	C, C	-108	-0.3%
18	C, C	-24	0.0%
19	C, C	48	0.1%
20	AN, W	-126	-0.1%
21	C, C	17	0.0%
22	W, W	-15	0.0%
23	W, W	-7	0.0%
24	W, W	30	0.0%
25	W, W	-3	0.0%
26	W, AN	5	0.0%
27	AN, AN	8	0.0%
28	D, D	0	0.0%
29	D, D	12	0.0%
30	AN, BN	-7	0.0%
31	BN, D	35	0.1%
32	AN, W	-45	-0.1%
33	W, W	150	0.3%
34	D, C	-15	0.0%
35	C, C	-64	-0.1%
36	D, BN	6	0.0%
37	BN, AN	-7	0.0%
38	W, W	1	0.0%
39	BN, D	55	0.1%
40	D, C	65	0.1%
41	C, C	-65	-0.1%
42	C, C	2	0.0%
<b>Average</b>		<b>8</b>	<b>0.0%</b>
<b>Maximum</b>		<b>430</b>	<b>0.7%</b>
<b>Minimum</b>		<b>-254</b>	<b>-0.6%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-330. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 15 (SR15) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	-2,254	-0.5%
2	W, W	-1,270	-0.3%
3	C, C	-1,270	-0.3%
4	C, C	-2,791	-0.6%
5	AN, W	-3,144	-0.3%
6	BN, AN	-1,956	-0.4%
7	AN, W	-2,124	-0.3%
8	D, D	-1,405	-0.4%
9	W, W	-843	-0.1%
10	W, W	-517	-0.1%
11	W, AN	-607	-0.2%
12	D, D	-888	-0.2%
13	W, W	119	0.0%
14	D, D	-304	-0.1%
15	C, C	899	0.2%
16	D, C	963	0.2%
17	C, C	563	0.1%
18	C, C	-20	0.0%
19	C, C	-1,045	-0.2%
20	AN, W	-1,157	-0.2%
21	C, C	-1,426	-0.3%
22	W, W	-535	-0.1%
23	W, W	-1,351	-0.2%
24	W, W	-3,805	-0.6%
25	W, W	-2,597	-0.5%
26	W, AN	-2,094	-0.6%
27	AN, AN	-2,692	-0.6%
28	D, D	-2,665	-0.6%
29	D, D	-2,244	-0.6%
30	AN, BN	-1,863	-0.5%
31	BN, D	-3,242	-0.8%
32	AN, W	-3,911	-0.6%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
33	W, W	-2,911	-0.4%
34	D, C	-2,442	-0.6%
35	C, C	-2,139	-0.5%
36	D, BN	-1,111	-0.3%
37	BN, AN	-888	-0.1%
38	W, W	-1,166	-0.1%
39	BN, D	-1,191	-0.2%
40	D, C	-1,241	-0.3%
41	C, C	-1,212	-0.3%
42	C, C	-3,027	-0.6%
<b>Average</b>		<b>-1,543</b>	<b>-0.3%</b>
<b>Maximum</b>		<b>963</b>	<b>0.2%</b>
<b>Minimum</b>		<b>-3,911</b>	<b>-0.8%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-331. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 16 (SR16) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	-32	-0.1%
2	W, W	-42	-0.1%
3	C, C	-46	-0.1%
4	C, C	21	0.0%
5	AN, W	-26	0.0%
6	BN, AN	-29	-0.1%
7	AN, W	-26	-0.1%
8	D, D	-41	-0.1%
9	W, W	-25	-0.1%
10	W, W	-49	-0.2%
11	W, AN	-61	-0.4%
12	D, D	-37	-0.1%
13	W, W	-10	0.0%
14	D, D	-13	0.0%
15	C, C	10	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
16	D, C	-17	0.0%
17	C, C	-12	0.0%
18	C, C	82	0.1%
19	C, C	34	0.0%
20	AN, W	-16	0.0%
21	C, C	22	0.0%
22	W, W	35	0.1%
23	W, W	61	0.1%
24	W, W	-1	0.0%
25	W, W	-10	0.0%
26	W, AN	-21	-0.1%
27	AN, AN	-33	-0.1%
28	D, D	-89	-0.2%
29	D, D	-57	-0.1%
30	AN, BN	-74	-0.1%
31	BN, D	-26	0.0%
32	AN, W	-36	-0.1%
33	W, W	-52	-0.2%
34	D, C	-64	-0.1%
35	C, C	-11	0.0%
36	D, BN	-45	-0.1%
37	BN, AN	-16	0.0%
38	W, W	56	0.2%
39	BN, D	-25	-0.1%
40	D, C	-29	0.0%
41	C, C	38	0.0%
42	C, C	-54	-0.1%
<b>Average</b>		<b>-18</b>	<b>-0.1%</b>
<b>Maximum</b>		<b>82</b>	<b>0.2%</b>
<b>Minimum</b>		<b>-89</b>	<b>-0.4%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-332. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 17 (SR17) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	-59	-0.3%
2	W, W	-38	-0.1%
3	C, C	-33	0.0%
4	C, C	1	0.0%
5	AN, W	-48	0.0%
6	BN, AN	-41	-0.6%
7	AN, W	-74	0.2%
8	D, D	-95	-0.8%
9	W, W	-9	0.0%
10	W, W	-34	0.1%
11	W, AN	-117	0.1%
12	D, D	-7	0.1%
13	W, W	-57	0.4%
14	D, D	-129	-2.0%
15	C, C	-74	-0.1%
16	D, C	3	0.0%
17	C, C	18	0.0%
18	C, C	5	0.0%
19	C, C	-1	0.0%
20	AN, W	-19	0.0%
21	C, C	-2	0.0%
22	W, W	10	0.0%
23	W, W	-33	-0.1%
24	W, W	56	-0.4%
25	W, W	57	-2.5%
26	W, AN	-17	0.1%
27	AN, AN	4	0.0%
28	D, D	-58	-0.1%
29	D, D	-43	-0.1%
30	AN, BN	-78	-0.1%
31	BN, D	-26	0.0%
32	AN, W	-92	-0.1%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
33	W, W	-76	-0.3%
34	D, C	-58	-0.1%
35	C, C	-37	0.0%
36	D, BN	-5	0.0%
37	BN, AN	-14	0.0%
38	W, W	6	0.0%
39	BN, D	-4	0.0%
40	D, C	-8	0.0%
41	C, C	2	0.0%
42	C, C	-1	0.0%
<b>Average</b>		<b>-29</b>	<b>-0.2%</b>
<b>Maximum</b>		<b>57</b>	<b>0.4%</b>
<b>Minimum</b>		<b>-129</b>	<b>-2.5%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-333. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 18 (SR18) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	-2,789	5.0%
2	W, W	-2,350	3.3%
3	C, C	-1,357	4.2%
4	C, C	-495	-1.2%
5	AN, W	-916	-0.7%
6	BN, AN	-3,733	1.8%
7	AN, W	-2,684	1.1%
8	D, D	-2,828	1.0%
9	W, W	-2,747	0.9%
10	W, W	-3,581	0.3%
11	W, AN	-3,162	0.3%
12	D, D	-6,102	0.9%
13	W, W	-4,667	0.6%
14	D, D	-4,292	0.6%
15	C, C	-3,544	0.9%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
16	D, C	-3,178	2.0%
17	C, C	-2,147	36.4%
18	C, C	-1,478	-2.7%
19	C, C	-765	-1.0%
20	AN, W	-760	-0.7%
21	C, C	-697	-8.1%
22	W, W	-2,504	-8.4%
23	W, W	-3,396	1.1%
24	W, W	-21,607	9.6%
25	W, W	-12,572	2.5%
26	W, AN	-8,933	1.1%
27	AN, AN	-8,466	1.5%
28	D, D	-8,016	1.8%
29	D, D	-7,860	3.7%
30	AN, BN	-7,566	10.2%
31	BN, D	-5,482	15.4%
32	AN, W	-6,792	9.8%
33	W, W	-8,060	4.3%
34	D, C	-6,752	4.3%
35	C, C	-3,441	-6.8%
36	D, BN	-1,704	-2.2%
37	BN, AN	-1,684	-2.0%
38	W, W	-11,189	4.8%
39	BN, D	-8,070	3.0%
40	D, C	-5,174	14.9%
41	C, C	-1,126	-1.8%
42	C, C	-753	-0.8%
<b>Average</b>		<b>-4,653</b>	<b>2.6%</b>
<b>Maximum</b>		<b>-495</b>	<b>36.4%</b>
<b>Minimum</b>		<b>-21,607</b>	<b>-8.4%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-334. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 19 (SR19) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	0	0.0%
3	C, C	0	0.0%
4	C, C	0	0.0%
5	AN, W	0	0.0%
6	BN, AN	0	0.0%
7	AN, W	0	0.0%
8	D, D	0	0.0%
9	W, W	0	0.0%
10	W, W	0	0.0%
11	W, AN	-1	0.0%
12	D, D	-1	-0.1%
13	W, W	-3	0.0%
14	D, D	-1	0.0%
15	C, C	2	0.3%
16	D, C	0	0.0%
17	C, C	0	0.0%
18	C, C	0	0.0%
19	C, C	0	0.0%
20	AN, W	0	0.0%
21	C, C	0	0.0%
22	W, W	2	0.0%
23	W, W	2	-0.2%
24	W, W	2	0.0%
25	W, W	-3	0.0%
26	W, AN	-4	0.0%
27	AN, AN	-2	-0.8%
28	D, D	-1	-0.1%
29	D, D	0	0.0%
30	AN, BN	0	0.0%
31	BN, D	0	0.0%
32	AN, W	-2	-0.1%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
33	W, W	-3	0.0%
34	D, C	4	-0.1%
35	C, C	0	0.0%
36	D, BN	0	0.0%
37	BN, AN	0	0.0%
38	W, W	-1	0.1%
39	BN, D	-1	0.2%
40	D, C	0	0.0%
41	C, C	0	0.0%
42	C, C	0	0.0%
<b>Average</b>		<b>0</b>	<b>0.0%</b>
<b>Maximum</b>		<b>4</b>	<b>0.3%</b>
<b>Minimum</b>		<b>-4</b>	<b>-0.8%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-335. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 20 (SR20) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	0	0.0%
3	C, C	0	0.0%
4	C, C	0	0.0%
5	AN, W	0	0.0%
6	BN, AN	0	0.0%
7	AN, W	0	0.0%
8	D, D	0	0.0%
9	W, W	0	0.0%
10	W, W	0	0.0%
11	W, AN	0	0.0%
12	D, D	0	0.0%
13	W, W	0	0.0%
14	D, D	0	0.0%
15	C, C	0	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
16	D, C	0	0.0%
17	C, C	0	0.0%
18	C, C	0	0.0%
19	C, C	0	0.0%
20	AN, W	0	0.0%
21	C, C	0	0.0%
22	W, W	0	0.0%
23	W, W	0	0.0%
24	W, W	0	0.0%
25	W, W	0	0.0%
26	W, AN	0	0.0%
27	AN, AN	0	0.0%
28	D, D	0	0.0%
29	D, D	1	0.0%
30	AN, BN	0	0.0%
31	BN, D	0	0.0%
32	AN, W	0	0.0%
33	W, W	0	0.0%
34	D, C	0	0.0%
35	C, C	0	0.0%
36	D, BN	0	0.0%
37	BN, AN	0	0.0%
38	W, W	0	0.0%
39	BN, D	0	0.0%
40	D, C	0	0.0%
41	C, C	0	0.0%
42	C, C	0	0.0%
<b>Average</b>		<b>0</b>	<b>0.0%</b>
<b>Maximum</b>		<b>1</b>	<b>0.0%</b>
<b>Minimum</b>		<b>0</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

Table I.1-336. Simulated Change in Groundwater-Surface Water Interaction Flow in C2VSimFG Subregion 21 (SR21) for Alternative 4 Compared to the No Action Alternative

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
1	W, W	0	0.0%
2	W, W	0	0.0%
3	C, C	0	0.0%
4	C, C	0	0.0%
5	AN, W	0	0.0%
6	BN, AN	0	0.0%
7	AN, W	0	0.0%
8	D, D	0	0.0%
9	W, W	0	0.0%
10	W, W	-2	0.0%
11	W, AN	0	0.0%
12	D, D	0	0.0%
13	W, W	0	0.0%
14	D, D	0	0.0%
15	C, C	0	0.0%
16	D, C	0	0.0%
17	C, C	0	0.0%
18	C, C	0	0.0%
19	C, C	0	0.0%
20	AN, W	0	0.0%
21	C, C	0	0.0%
22	W, W	0	0.0%
23	W, W	-1	0.0%
24	W, W	-1	0.0%
25	W, W	-3	0.0%
26	W, AN	-2	0.0%
27	AN, AN	-1	0.0%
28	D, D	-1	0.0%
29	D, D	0	0.0%
30	AN, BN	0	0.0%
31	BN, D	0	0.0%
32	AN, W	-1	0.0%

Year	WY Type (Sacramento Valley, San Joaquin Valley)	Alt4 minus NAA (TAF)	Alt4 minus NAA (% Difference)
33	W, W	-3	0.0%
34	D, C	-1	0.0%
35	C, C	0	0.0%
36	D, BN	0	0.0%
37	BN, AN	0	0.0%
38	W, W	-1	0.0%
39	BN, D	-1	0.0%
40	D, C	0	0.0%
41	C, C	0	0.0%
42	C, C	0	0.0%
<b>Average</b>		<b>0</b>	<b>0.0%</b>
<b>Maximum</b>		<b>0</b>	<b>0.0%</b>
<b>Minimum</b>		<b>-3</b>	<b>0.0%</b>

TAF = thousand acre-feet; WY = water year; NAA = No Action Alternative; Alt = Alternative.  
Water Year Types: W = wet, AN = above normal, BN = below normal, D = dry; C = critical.

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