APPENDICES

APPENDIX 1

FIGURE 1

DEFINITION OF YUBA RIVER INDEX

The water year hydrologic classification for the Yuba River shall be determined by the following equation:

INDEX = 0.5 X + 0.3 Y + 0.2 Z

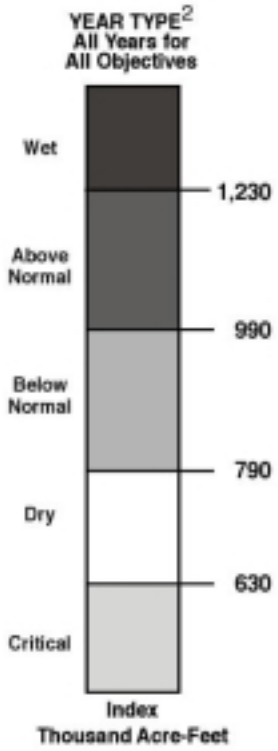
Where **X** = Current year's April-July Yuba River unimpaired runoff

Y = Current year's October-March Yuba River unimpaired runoff

Z = Previous year's index.[1]

The Yuba River unimpaired runoff for the current water year (October 1 of the preceding calendar year through September 30 of the current calendar year), as published in California Department of Water Resources Bulletin 120, is a forecast of the unimpaired flow of the Yuba River at Smartville. Preliminary determinations of a year's classification shall be made in February, March, and April, with the final determination in May. These preliminary determinations shall be based on hydrologic conditions to date plus forecasts of future runoff, assuming normal precipitation for the remainder of the water year.

Classification	Index Thousand Acre-Feet (TAF)
Wet	Equal to or greater than 1,230
Above Normal	Greater than 990 and less than 1,230
Below Normal	Equal to or less than 990 and greater than 790
Dry	Equal to or less than 790 and greater than 630
Critical	Equal to or less than 630



[1] A cap of 1,400 TAF is imposed on the previous year's index to account for required flood control reservoir releases during wet years.

[2] The year type for the preceding water year will remain in effect until the initial forecast of unimpaired runoff for the current year is available.

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APPENDIX 2

Offstream Use Water Demand For Use In Computer Modeling Simulations

The evaluation of the effects of revised instream flow requirements to YCWA's ability to deliver water for offstream uses requires an analysis of historic recorded water delivery data provided by YCWA (S-YCWA 27) and consideration of evidence in the record regarding best management practices for fall flooding. The information in the following table and figure were used in determining the most reasonable level of demand for computer modeling purposes.

APPENDIX TABLE 2-1
Level of Demand for Modeling Purposes
Supporting Data

WATER YEAR	WATER YEAR TYPE	REPORTED HISTORIC IRRIGATION DELIVERIES* (S-YCWA 27) (AF)	ESTIMATED FALL FLOODING/ WATERFOWL HABITAT DELIVERIES (AF)	TOTAL ADJUSTED HISTORIC DIVERSION DEMAND FOR MODELING PURPOSES (AF)
1987	C	210,441	35,516	245,957
1988	C	192,741	35,516	228,257
1989	BN	213,828	35,516	249,344
1990	D	234,261	35,516	269,777
1991	C	234,337	35,516	269,853
1992	C	212,717	35,516	248,233
1993	AB	203,546	35,516	239,062
1994	C	234,490	35,516	270,006
1995	W	196,255	35,516	231,771
1996	W	211,105	35,516	246,621
1997	W	249,583	35,516	285,099
1998	W	193,892	35,516	229,408
1999	W	239,011	35,516	274,527
AVE.	--------	--------	--------	**252,916**
AVE. (BN,D,C)	--------	--------	--------	**254,489**
AVE. (W,AN)	--------	--------	--------	**251,081**
MIN.	--------	--------	--------	**228,257**
MAX	--------	--------	--------	**285,099**
MEDIAN	--------	--------	--------	**248,233**
AVE. (5 HIGHEST YEARS)	--------	--------	--------	**273,847**

*** Includes amounts pumped from groundwater to allow for transfer of surface water to the State Water Bank (82,018 acre-feet in 1991 and 26,033 acre-feet in 1994)**

The estimated fall flooding/waterfowl habitat deliveries data summarized in the above table were derived from YCWA's 1999 estimated summary of irrigation diversion

requirements for the full development levels of demand (S-YCWA-15, p. 8, Table 7) and related "fall flooding" testimony presented by YCWA and Cordua Irrigation District. (YCWA 45, pp.4-5; S-YCWA 15, Appendix A, p. 9 of 7 (columar description #7); S-Cordua 1, pp. 1-2.) Based on that information, the following table shows the estimated annual amount of water needed for rice straw decomposition and waterfowl habitat at YCWA's full development level of demand.

APPENDIX TABLE 2-2
Estimated Full Development Demands for
Waterfowl Habitat and Rice Straw Decomposition

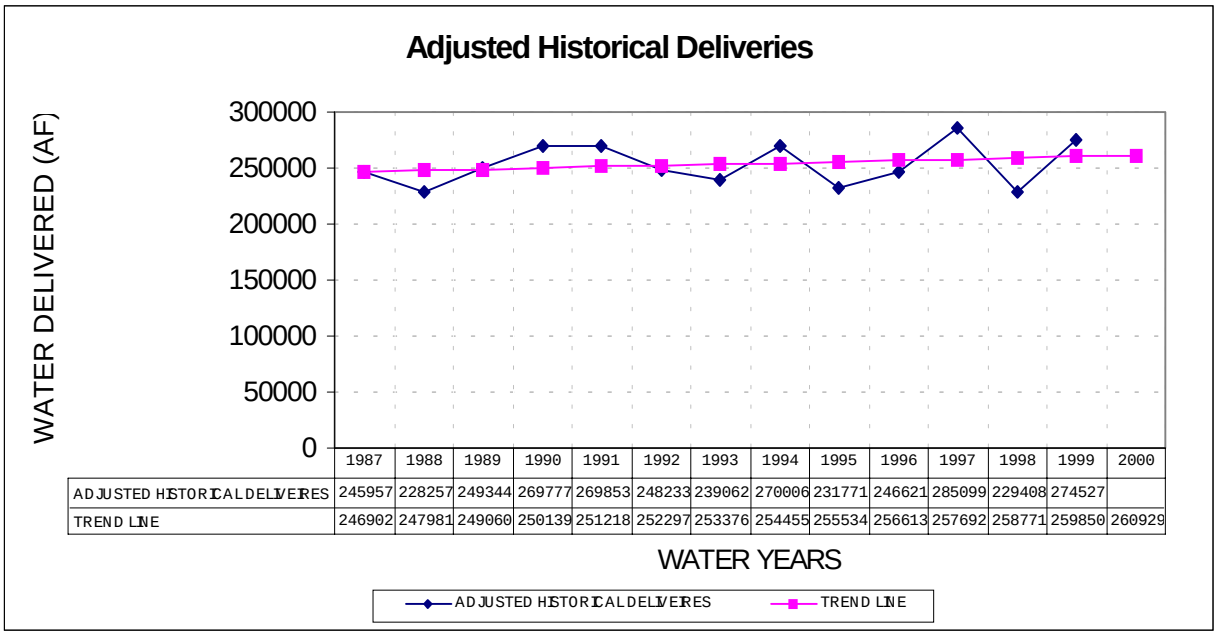
DISTRICT	NET RICE CROP ACREAGE (ACRES) (S-YCWA-15, p.8, Table 7)	FALL FLOODING - WATERFOWL HABITAT ANNUAL DEMAND* (AF)
Brophy	7,700	7,623
Browns Valley	4,400	4,356
Cordua	8,000	7,920
Dantoni Area	0	0
Dry Creek	465	461
Hallwood	4,400	4,356
Ramirez	4,776	4,727
South Yuba	5,268	5,215
Wheatland	530	524
Wheatland Detached	337	333
TOTALS	**35,876**	**35,516**

*** Fall Flooding Demand equals 90% of the net rice acreage at full development times 1.1 acre-feet of applied water (1.0 acre-feet per acre plus 10% added to account for conveyance losses). (S-YCWA 15, Appendix A; S-Cordua 1)**

The following figure illustrates the total adjusted historic diversion demand for the data summarized in Appendix Table 2-1 and the corresponding "trend-line" for the plotted data. As the figure shows, five out of the 13 years plotted lie over the plotted trend-line. These five highest years of deliveries (1990, 1991, 1994, 1997, and 1999) were averaged to obtain the estimated level of demand used for modeling purposes. As Appendix Table 2-1 indicates, the average of the five highest years of deliveries equals 273,847 acre-feet.

The figures in Appendix Table 2-1 show that estimated average demand in below normal, dry and critical years was approximately one percent higher than in wet and above normal. However, the two years of highest demand were both wet years. In view of the small number of years involved and the small effect of water year type on diversion demand, the computer modeling simulations used in developing the SWRCB's decision used a single water demand figure of 273, 847 acre-feet, as the estimated demand for offstream uses in all water year types.

APPENDIX FIGURE 2-1
Adjusted Historical Deliveries and Trend Line Plot



The following Appendix Table 2-3 provides the average monthly diversion demand for all water year types that were used for modeling the effects of fishery protection measures on YCWA's ability to deliver water for offstream uses. The monthly values were calculated based on YCWA's estimated pattern of delivery distribution for the present level of demand. (S-YCWA 15A, p. 10, Table 8.)

APPENDIX TABLE 2-3
Present Level of Diversion Requirement Used For Modeling Purposes
(All Water Year Types)

Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
AF	16,727	9,191	4,586	352	352	2,648	16,242	53,088	49,001	57,541	48,304	15,815	273,847

APPENDIX 3

MODELING STUDIES RESULTS

TABLE A-1 Total Outflow from New Bullards Bar Reservoir
YCWA/DFG 1965 AGREEMENT
Study : a) present level demand; b) current PG&E practice; c) current minimum flow requirements; d) YRI
(CFS)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	509	463	327	472	1311	1226	2544	6796	5791	3024	1712	889
1923	543	379	2178	1412	820	267	2215	2668	2082	2415	1669	954
1924	514	437	360	602	283	445	341	973	994	1008	860	320
1925	326	274	263	260	2074	2175	1889	2124	1245	2050	1617	886
1926	557	428	394	567	2489	928	2041	968	1035	1093	1543	855
1927	507	2438	1690	1994	5663	4024	4038	3444	3425	2633	1595	918
1928	556	865	1164	1611	1247	5657	2782	1754	1033	2062	1577	892
1929	570	419	410	631	284	255	261	720	922	992	1072	838
1930	505	387	1709	1525	1689	1626	1154	972	1090	2025	1605	908
1931	612	349	521	517	289	256	303	943	972	1008	855	326
1932	390	274	262	257	1223	1207	1256	3255	2931	2201	1654	843
1933	579	466	480	634	424	258	262	423	851	1497	1543	855
1934	444	349	267	1016	1064	687	430	988	994	1003	855	324
1935	483	267	290	612	1182	589	4235	3678	2662	2153	1627	868
1936	545	490	543	1877	2711	3432	3421	2742	2136	2272	1648	914
1937	579	495	532	673	285	253	2115	3576	1949	2133	1606	847
1938	531	384	2976	1847	2013	6163	4677	6584	4780	3067	1786	935
1939	532	497	539	587	283	254	258	897	917	951	855	332
1940	437	336	375	2538	3944	6496	3029	2190	1363	2048	1624	919
1941	543	421	2043	2764	3852	3974	2624	4500	2511	2881	1755	1000
1942	556	408	2959	3014	5014	2475	3506	3870	3725	2973	1775	910
1943	576	1072	2540	3479	3228	5871	2972	1756	1881	2271	1722	937
1944	572	502	485	577	283	253	258	1873	1471	2088	1627	875
1945	562	396	1332	921	2626	1743	1140	2665	1881	2217	1674	910
1946	523	766	2644	3459	1401	1079	2235	2494	1458	2169	1691	893
1947	589	364	771	743	1170	1360	500	1025	970	972	1531	877
1948	497	500	568	1583	443	253	2035	3150	3124	2325	1756	918
1949	593	500	256	602	284	254	1540	1914	1142	2011	1613	892
1950	597	426	511	640	2515	1405	2733	2738	2245	2234	1699	907
1951	510	4075	6925	3698	3938	2678	1752	1888	1309	2171	1671	893
1952	475	809	2868	2044	3122	2855	5358	7438	5066	3966	2030	1066
1953	602	451	255	3436	3011	784	2305	2554	3576	3159	1847	950
1954	587	369	415	1005	2012	2325	3058	1451	1026	2089	1627	895
1955	464	402	323	702	404	288	301	1324	1472	2126	1641	883
1956	589	409	8135	6990	3263	2881	1670	3854	3042	2498	1865	1016
1957	459	406	543	527	2487	2262	466	2762	1966	2236	1725	946
1958	523	443	1188	1590	5508	3608	3905	6095	3621	2834	1877	1251
1959	602	429	499	826	1476	595	289	980	967	977	1173	944
1960	569	496	528	397	2146	2738	904	867	1040	2114	1674	880
1961	570	399	391	631	473	252	257	759	944	1926	1620	871
1962	530	388	329	436	2075	1627	2618	1780	1991	2164	1708	950
1963	2822	1355	2373	2321	4612	1996	3501	4085	1994	2380	1847	1066
1964	530	1461	682	919	822	253	258	1003	1369	2117	1701	929
1965	587	413	10355	6469	3653	1406	2993	2609	2501	2493	1931	1062
1966	592	359	507	916	635	941	1848	960	1008	1742	1598	899
1967	626	466	2421	2517	3133	2670	1149	5066	5189	3556	1920	1011
1968	536	405	417	871	2862	2227	257	828	1020	1569	1633	772
1969	510	440	1034	7093	3577	2590	3240	5208	3304	2747	1739	964
1970	584	446	2935	10589	3385	2616	257	705	1224	2170	1674	883
1971	576	1425	2454	2308	1832	2392	1819	4206	2832	3209	1905	1147
1972	592	474	408	1213	1383	2138	948	1396	1319	2099	1755	1051
1973	503	974	1967	2810	3386	2870	1520	3053	1420	2171	1714	1077
1974	500	3200	3427	6826	3521	5596	3569	3327	2892	2778	1851	971
1975	575	437	457	525	2139	2584	972	4128	3955	2929	1851	1046
1976	587	580	612	621	290	341	353	901	828	852	717	265
1977	413	266	329	429	287	297	408	906	848	907	823	283
1978	452	294	274	832	1899	3896	2687	2720	2720	2540	1838	1213
1979	554	442	470	424	1070	1517	947	2897	1420	2134	1694	958
1980	500	683	913	7369	6456	3179	1482	1812	2091	2487	1754	898
1981	430	473	530	288	1333	626	257	958	909	919	1437	863
1982	438	3447	7898	3585	7153	4424	7225	4740	2753	2663	1835	1404
1983	573	1685	3199	2694	4880	9348	2990	5197	5774	4113	2126	1209
1984	441	2648	7813	3516	3416	2149	612	1583	1634	2261	1746	1024
1985	452	1254	866	647	743	253	848	933	1012	1348	1608	944
1986	433	392	754	2373	12183	7330	1133	940	1304	2189	1688	1211
1987	410	500	555	665	340	624	348	911	924	942	822	297
1988	478	291	698	1304	728	253	303	877	877	922	823	314
1989	451	477	474	730	1174	6702	2745	934	1218	2062	1689	1006
1990	549	414	495	910	545	891	370	765	804	1506	1689	902
1991	554	441	571	738	534	257	260	820	909	1495	1661	895
1992	554	441	571	738	534	257	260	820	909	1488	1661	895
AVG.	558	719	1525	1872	2233	2118	1764	2376	1980	2096	1596	884

TABLE A-2 New Bullards Bar Reservoir End-of-month Storage
YCWA/DFG 1965 AGREEMENT
Study : a) present level demand; b) current PG&E practice; c) current minimum flow requirements; d) YRI
(AF)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	561358	548404	586356	623906	720000	790000	890000	966000	966000	840000	750000	705000
1923	681634	685208	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1924	685183	667846	670097	650073	696599	700454	742722	713818	658805	598208	545740	531741
1925	525771	535507	581157	622850	796000	790000	890000	966000	950000	840000	750000	705000
1926	679976	670822	674363	670320	730198	790000	890000	927494	899579	840000	750000	705000
1927	686374	705000	705000	705000	796000	796000	896000	966000	966000	840000	750000	705000
1928	679714	705000	705000	705000	720000	796000	890000	966000	950000	840000	750000	705000
1929	676847	666743	662848	643440	668248	721005	800273	870409	864800	811940	750000	705000
1930	678804	661239	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1931	667872	666518	640277	634341	646221	701941	740914	716246	669819	609014	558877	544091
1932	530981	532510	609700	677902	720000	790000	890000	966000	950000	840000	750000	705000
1933	674721	654655	635396	613294	607533	665868	757767	866547	919195	840000	750000	705000
1934	685514	675431	705000	705000	720000	790000	837794	814409	770314	712734	663263	648744
1935	625712	642275	659107	705000	720000	790000	896000	966000	950000	840000	750000	705000
1936	683258	671246	661570	705000	796000	790000	890000	966000	950000	840000	750000	705000
1937	676601	655384	635756	606461	668873	776382	890000	966000	950000	840000	750000	705000
1938	679695	705000	736930	705000	768577	796000	896000	966000	966000	840000	750000	705000
1939	686758	680097	674720	664468	670647	756206	873641	870539	829926	774897	722562	705000
1940	687409	677470	671293	705000	796000	796000	890000	966000	950000	840000	750000	705000
1941	682442	689525	705000	729164	796000	796000	890000	966000	950000	840000	750000	705000
1942	685510	694375	705000	796000	796000	790000	896000	966000	966000	840000	750000	705000
1943	679085	705000	705000	796000	794452	796000	890000	966000	950000	840000	750000	705000
1944	681629	665513	654180	650330	686546	771940	877101	966000	950000	840000	750000	705000
1945	679616	705000	705000	705000	796000	790000	890000	966000	950000	840000	750000	705000
1946	690244	705000	796000	721769	720000	790000	890000	966000	950000	840000	750000	705000
1947	679598	705000	705000	687175	720000	790000	890000	900302	883203	835042	750000	705000
1948	705000	700825	687386	705000	716241	744513	890000	966000	950000	840000	750000	705000
1949	678306	669569	674492	656432	663201	749613	890000	966000	950000	840000	750000	705000
1950	674436	662548	643777	705000	720000	790000	890000	966000	950000	840000	750000	705000
1951	705000	796000	796000	796000	796000	790000	890000	966000	950000	840000	750000	705000
1952	701918	705000	705000	705000	796000	794115	896000	966000	966000	840000	750000	705000
1953	678576	666567	700424	796000	720000	790000	890000	966000	966000	840000	750000	705000
1954	684415	695006	701549	705000	720000	790000	890000	966000	950000	840000	750000	705000
1955	680353	675600	705000	705000	720000	771958	862848	966000	950000	840000	750000	705000
1956	676710	672018	796000	796000	796000	790000	890000	966000	950000	840000	750000	705000
1957	700259	697812	690276	687641	720000	790000	890000	966000	950000	840000	750000	705000
1958	696633	702517	705000	705000	796000	796000	896000	966000	966000	840000	750000	705000
1959	676562	665625	650358	705000	720000	790000	881576	893597	862352	813434	750000	705000
1960	677388	653166	627729	646205	720000	790000	890000	956261	950000	840000	750000	705000
1961	675370	675855	687632	664773	720000	788882	884716	952946	944687	840000	750000	705000
1962	682202	669532	690348	688820	777113	790000	890000	966000	950000	840000	750000	705000
1963	737090	705000	705000	705000	796000	790000	896000	966000	950000	840000	750000	705000
1964	689814	705000	705000	705000	720000	770856	881388	966000	950000	840000	750000	705000
1965	696579	705000	796000	796000	748924	790000	890000	966000	950000	840000	750000	705000
1966	683197	705000	705000	705000	720000	790000	890000	966000	933889	840000	750000	705000
1967	674829	705000	705000	741091	720000	790000	890000	966000	966000	840000	750000	705000
1968	690003	679146	692889	705000	782257	790000	890000	944818	925587	840000	750000	705000
1969	686712	705000	705000	796000	796000	790000	896000	966000	966000	840000	750000	705000
1970	690955	684886	705000	796000	776241	790000	872907	959084	950000	840000	750000	705000
1971	691585	705000	705000	705000	720000	790000	890000	966000	966000	840000	750000	705000
1972	690741	690115	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1973	702624	705000	705000	796000	796000	790000	890000	966000	950000	840000	750000	705000
1974	703914	796000	796000	796000	720000	796000	896000	966000	950000	840000	750000	705000
1975	687696	684514	682763	693963	720000	790000	890000	966000	966000	840000	750000	705000
1976	705000	705000	705000	690187	710811	756631	795299	797000	759515	711088	673316	662579
1977	643592	635118	622138	608095	604550	602352	596536	573906	533227	478958	430500	416372
1978	392618	388378	466120	705000	720000	796000	890000	966000	950000	840000	750000	705000
1979	683596	675956	664249	705000	720000	790000	890000	966000	950000	840000	750000	705000
1980	703638	705000	705000	796000	796000	790000	890000	966000	950000	840000	750000	705000
1981	686687	672977	678915	705000	720000	790000	889456	911177	880852	833597	750000	705000
1982	704314	796000	796000	796000	796000	796000	896000	966000	950000	840000	750000	705000
1983	705000	705000	728138	710121	796000	796000	890000	966000	966000	840000	750000	705000
1984	705000	796000	796000	773165	725654	790000	890000	966000	950000	840000	750000	705000
1985	694176	705000	705000	703343	720000	782914	890000	937842	910086	840000	750000	705000
1986	686789	693810	705000	705000	796000	796000	890000	966000	950000	840000	750000	705000
1987	696716	683272	667166	657348	720000	790000	851400	843440	802427	752634	707547	695008
1988	672790	665990	705000	705000	720000	765195	816031	815581	788344	742955	696359	682060
1989	659137	705000	705000	705000	720000	796000	890000	966000	950000	840000	750000	705000
1990	705000	704454	695870	705000	720000	790000	877688	894650	918216	840000	750000	705000
1991	674207	664402	634996	603243	590770	727250	844862	912667	914509	840000	750000	705000
1992	674207	664402	634996	603243	590346	726824	844436	912242	914089	840000	750000	705000
AVG.	675262	680617	689971	704580	732282	777928	872949	934070	919372	820204	735890	694375

TABLE A-3 Total Energy Production at New Bullards Bar Reservoir
YCWA/DFG 1965 AGREEMENT
Study: a) present level demand; b) current PG&E practice; c) current minimum flow requirements; d) YRI
(MWH)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	35968	31493	23074	33646	85674	89870	183252	269514	260820	226564	126084	62857
1923	39457	26611	158345	102832	53991	19587	159542	202019	153188	181961	122916	67451
1924	37381	30599	26038	43436	19161	32356	24094	71076	69766	72224	60691	21643
1925	22715	18500	18500	18500	136513	160220	136021	160839	91604	154454	119086	62645
1926	40466	29997	28518	41022	163602	68060	147027	73058	75675	81925	113634	60454
1927	36849	171506	123034	145212	237781	264848	259348	254271	246131	198674	117465	64907
1928	40412	60833	84732	117323	85011	263520	200541	132801	76005	155359	116139	63069
1929	41392	29343	29624	45458	18500	18500	18500	53544	66839	73807	78811	59253
1930	36690	27051	123909	111061	111201	119190	83148	73592	80199	152570	118202	64200
1931	44406	24419	37510	37117	18759	18500	21367	68894	68351	72385	60607	22131
1932	27247	18500	18500	18500	83245	88498	90497	242219	214950	165834	121811	59606
1933	42007	32547	34529	45385	27336	18500	18500	31290	62068	112426	113634	60454
1934	32266	24458	19376	73996	70054	50369	30763	73321	70844	73350	62046	22565
1935	34682	18500	20894	44359	77823	43186	259166	269514	195837	162217	119822	61373
1936	39578	34353	39243	136070	185731	246334	240317	207603	157161	171184	121369	64624
1937	42044	34606	38272	48141	18500	18500	152123	263282	143402	160709	118275	59889
1938	38546	26993	216036	134801	132975	264368	259348	269514	260820	229352	131536	66108
1939	38650	34891	39048	42443	18500	18500	18500	67223	66196	70205	62602	23400
1940	31775	23596	27157	184189	246273	264848	216678	165806	100286	154319	119601	64977
1941	39449	29575	148555	201610	238162	264848	189108	269514	184753	216826	129297	70702
1942	40413	28687	214371	219234	239217	182311	245581	269514	260820	223223	130770	64341
1943	41807	75341	184923	247797	211311	264821	213117	132927	138399	171109	126866	66250
1944	41571	35166	35002	41561	19161	18500	18500	141695	108232	157318	119822	61868
1945	40818	27814	96965	67079	173725	128351	82093	201789	138399	167040	123285	64341
1946	38028	53928	193635	246852	92331	79079	161000	188811	107276	163422	124537	63140
1947	42801	25613	56115	54032	76953	99706	36012	77268	70663	72656	112749	62009
1948	36167	35242	41298	115131	30206	18500	145797	235543	227243	175179	129325	64907
1949	43087	35029	18500	43487	18500	18500	110427	144915	84025	151515	118791	63069
1950	43359	29813	36823	46291	165567	102983	196810	207328	165181	168321	125172	64129
1951	37114	254765	264848	264682	239217	197210	126208	142965	96313	163573	123064	63140
1952	34571	57017	208697	148853	211402	210287	259291	269514	260820	269514	149511	75367
1953	43714	31588	18500	245132	198073	57478	166048	193341	256181	235276	136029	67168
1954	42648	25945	30206	73171	132428	170379	218358	109859	75490	157393	119822	63281
1955	33701	28191	23425	51132	26603	21069	21595	100066	108306	160182	120854	62433
1956	42787	28661	262681	264848	220866	211933	120268	269514	222091	188216	137355	71833
1957	33402	28603	39481	38267	163522	165798	33592	209108	144653	168472	127087	66886
1958	38052	31212	86511	115794	237781	258233	259348	269514	259390	213839	138239	88441
1959	43688	30038	35997	59781	97178	43626	20768	73764	70233	72676	86266	66744
1960	41336	34636	37905	28502	145560	200670	65134	65595	76489	159278	123285	62221
1961	41388	27967	28358	45689	31038	18500	18500	57427	69347	145073	119307	61585
1962	38497	27203	23854	31665	137002	119660	188534	134809	146493	163046	125789	67168
1963	205890	95698	172771	168983	237781	146984	245223	269514	146713	179323	136029	75367
1964	38536	102826	49634	66933	56031	18500	18500	75881	100727	159504	125274	65684
1965	42701	29059	263257	264848	235476	103252	214288	197535	184003	187839	142217	75084
1966	42993	25233	36891	66715	41811	68982	133089	72684	74107	131022	117686	63564
1967	45438	32759	176307	183681	204204	195663	82788	269514	260820	260858	141407	71469
1968	38967	28408	30270	63387	195857	163864	18510	62579	74792	117907	120264	54588
1969	37105	30946	75266	263257	231288	190761	229627	269514	238727	207275	128073	68158
1970	42499	31343	212619	263257	219703	192437	18500	53282	90048	163498	123285	62433
1971	41902	100294	178690	168068	120612	175312	130977	269514	208632	238472	140347	81091
1972	43043	33293	29644	88341	94284	156665	68254	105719	97048	158147	129252	74307
1973	36647	68637	143221	205825	220049	211193	109491	229242	104480	163588	126231	76144
1974	36432	223360	246149	264848	226491	263520	250192	246945	212419	209317	136324	68653
1975	41833	30664	33155	38117	140718	189418	69982	269514	260820	220314	136369	73953
1976	42721	40876	44536	45176	19750	24907	25081	66373	58938	62282	52116	18500
1977	29745	18500	23586	30650	18500	21142	28095	64200	57610	62820	56130	18500
1978	30341	18993	18500	58951	124999	263520	193689	205919	200142	191381	135366	85756
1979	40270	30972	33997	30720	70449	111198	68218	218959	104480	160785	124758	67734
1980	36395	48139	66455	263257	247761	230823	106748	137184	153850	187387	129178	63493
1981	31245	33146	38384	20924	87764	45888	18500	72259	66292	68689	105781	61020
1982	31882	237898	264848	256645	239217	264848	259348	269514	202579	200651	135145	99255
1983	41701	118745	229752	196539	237862	264848	214253	269514	260820	269514	156583	85473
1984	32090	187692	264848	251269	228238	157567	44088	119882	120225	170356	128589	72398
1985	32878	88318	63032	47118	48928	18500	61039	70473	74122	101132	118423	66744
1986	31488	27565	54837	172787	237781	264848	81667	71169	95945	164945	124316	85614
1987	29804	35146	40151	48004	22315	45752	24950	67923	66318	69263	60033	20894
1988	34634	20339	50656	94968	49622	18500	21583	64946	62649	67682	60021	22036
1989	32644	33431	34488	53170	77296	263520	197858	70702	89617	155359	124390	71126
1990	39954	29190	36040	66205	35886	65310	26610	57545	58741	113096	124390	63776
1991	40216	30866	41114	52767	34315	18500	18500	61597	66455	112206	122327	63281
1992	40216	30866	41114	52767	35533	18500	18500	61591	66451	111688	122327	63281
AVG.	40467	49916	87144	111581	125873	128097	118493	155709	135064	156323	117383	62423

TABLE A-4 Total Delivery at Daguerre Point Dam
YCWA/DFG 1965 AGREEMENT
Study: a) present level demand; b) current PG&E practice; c) current minimum flow requirements; d) YRI
(AF)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
1922	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1923	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1924	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1925	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1926	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1927	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1928	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1929	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1930	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1931	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1932	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1933	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1934	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1935	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1936	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1937	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1938	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1939	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1940	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1941	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1942	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1943	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1944	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1945	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1946	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1947	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1948	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1949	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1950	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1951	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1952	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1953	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1954	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1955	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1956	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1957	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1958	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1959	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1960	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1961	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1962	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1963	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1964	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1965	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1966	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1967	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1968	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1969	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1970	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1971	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1972	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1973	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1974	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1975	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1976	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1977	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1978	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1979	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1980	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1981	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1982	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1983	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1984	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1985	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1986	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1987	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1988	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1989	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1990	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1991	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1992	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
AVG.	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847

TABLE A-5 Total Deliveries and Deficiencies at Daguerre Point Diversion Dam
YCWA/DFG 1965 AGREEMENT
Study 1: a) present level demand; b) current PG&E practice; c) current minimum flow requirements; d) YRI

Water Year	Year Type (YRI)	Total Annual Delivery (ac-ft)	Total Annual Demand (ac-ft)	Deficiency, Percent of Demand %	Deficiency, Volume (ac-ft)
1922	W	273847	273847	0.0%	0
1923	AN	273847	273847	0.0%	0
1924	C	273847	273847	0.0%	0
1925	BN	273847	273847	0.0%	0
1926	BN	273847	273847	0.0%	0
1927	W	273847	273847	0.0%	0
1928	AN	273847	273847	0.0%	0
1929	D	273847	273847	0.0%	0
1930	BN	273847	273847	0.0%	0
1931	C	273847	273847	0.0%	0
1932	BN	273847	273847	0.0%	0
1933	D	273847	273847	0.0%	0
1934	C	273847	273847	0.0%	0
1935	AN	273847	273847	0.0%	0
1936	AN	273847	273847	0.0%	0
1937	AN	273847	273847	0.0%	0
1938	W	273847	273847	0.0%	0
1939	D	273847	273847	0.0%	0
1940	AN	273847	273847	0.0%	0
1941	W	273847	273847	0.0%	0
1942	W	273847	273847	0.0%	0
1943	W	273847	273847	0.0%	0
1944	BN	273847	273847	0.0%	0
1945	AN	273847	273847	0.0%	0
1946	AN	273847	273847	0.0%	0
1947	D	273847	273847	0.0%	0
1948	AN	273847	273847	0.0%	0
1949	BN	273847	273847	0.0%	0
1950	AN	273847	273847	0.0%	0
1951	W	273847	273847	0.0%	0
1952	W	273847	273847	0.0%	0
1953	W	273847	273847	0.0%	0
1954	AN	273847	273847	0.0%	0
1955	D	273847	273847	0.0%	0
1956	W	273847	273847	0.0%	0
1957	AN	273847	273847	0.0%	0
1958	W	273847	273847	0.0%	0
1959	D	273847	273847	0.0%	0
1960	BN	273847	273847	0.0%	0
1961	C	273847	273847	0.0%	0
1962	BN	273847	273847	0.0%	0
1963	W	273847	273847	0.0%	0
1964	BN	273847	273847	0.0%	0
1965	W	273847	273847	0.0%	0
1966	BN	273847	273847	0.0%	0
1967	W	273847	273847	0.0%	0
1968	BN	273847	273847	0.0%	0
1969	W	273847	273847	0.0%	0
1970	W	273847	273847	0.0%	0
1971	W	273847	273847	0.0%	0
1972	BN	273847	273847	0.0%	0
1973	AN	273847	273847	0.0%	0
1974	W	273847	273847	0.0%	0
1975	W	273847	273847	0.0%	0
1976	C	273847	273847	0.0%	0
1977	C	273847	273847	0.0%	0
1978	AN	273847	273847	0.0%	0
1979	BN	273847	273847	0.0%	0
1980	W	273847	273847	0.0%	0
1981	D	273847	273847	0.0%	0
1982	W	273847	273847	0.0%	0
1983	W	273847	273847	0.0%	0
1984	W	273847	273847	0.0%	0
1985	BN	273847	273847	0.0%	0
1986	W	273847	273847	0.0%	0
1987	C	273847	273847	0.0%	0
1988	C	273847	273847	0.0%	0
1989	BN	273847	273847	0.0%	0
1990	D	273847	273847	0.0%	0
1991	C	273847	273847	0.0%	0
1992	C	273847	273847	0.0%	0
AVG.		273847	273847	0.0%	0

TABLE A-6 Flow in Yuba River at Marysville
YCWA/DFG 1965 AGREEMENT
Study: a) present level demand; b) current PG&E practice; c) current minimum flow requirements; d) YRI
(CFS)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	464	505	764	960	2992	2552	4184	9677	8666	2225	1003	676
1923	428	599	3505	2231	1412	860	3196	2822	1683	1581	953	755
1924	415	498	620	915	1102	640	184	189	181	77	77	77
1925	291	404	755	768	5215	3037	2437	2015	542	1187	871	658
1926	421	514	638	951	4791	1791	2984	289	313	194	771	612
1927	415	3592	2403	2960	10088	5761	5701	5190	4146	1776	856	709
1928	424	1348	1689	2350	2062	9336	3886	2490	345	1202	822	657
1929	416	562	647	857	786	997	601	321	230	87	294	588
1930	332	344	2864	2371	2822	2934	1545	335	399	1138	842	683
1931	418	565	565	952	704	889	193	190	189	77	77	77
1932	291	371	823	840	2213	2512	2375	3632	3190	1344	929	594
1933	421	483	616	925	665	941	884	225	243	600	777	608
1934	353	381	775	1682	1901	1391	221	228	229	79	77	77
1935	332	502	506	1228	1923	1482	7155	4279	2476	1293	901	628
1936	415	478	603	4047	6772	4213	3918	3347	1915	1395	910	687
1937	421	466	627	899	2628	2132	3177	3944	1312	1250	863	591
1938	418	1006	5287	2382	5954	10061	6044	9710	6869	2272	1057	736
1939	416	478	557	931	738	1341	300	230	192	79	79	95
1940	291	291	369	4548	7038	9403	4209	3048	639	1157	886	687
1941	415	547	3070	4933	6489	5680	3775	6048	2386	2061	1051	814
1942	415	548	4423	5026	8122	3362	5115	5125	4973	2145	1092	730
1943	417	1451	3389	6404	4694	8907	4325	2388	1333	1443	1044	748
1944	421	474	633	935	1634	1453	499	1392	807	1179	880	645
1945	415	929	1711	1166	5357	2668	1552	2767	1243	1328	979	687
1946	422	1165	5246	4514	2087	2071	2707	2805	762	1297	948	650
1947	421	702	1158	819	1961	2680	701	287	291	122	777	648
1948	426	480	564	2321	662	1298	3984	3357	3214	1445	991	670
1949	437	480	975	897	964	2058	2330	1411	389	1138	841	666
1950	415	511	630	2222	4707	2635	3608	3207	1907	1382	955	671
1951	430	7409	11088	6060	5539	3864	2799	2744	586	1324	921	646
1952	422	1168	4273	4765	6153	5104	7288	11286	7727	3447	1280	849
1953	422	508	1094	6129	3397	1870	2994	2607	4835	2289	1097	716
1954	421	594	625	2159	3334	3867	3917	1135	336	1189	859	647
1955	416	559	891	1355	958	672	260	1267	845	1200	870	634
1956	415	560	14341	11370	4980	3716	1861	5521	3671	1691	1120	800
1957	417	502	558	990	4052	3754	720	3509	1697	1354	964	718
1958	417	514	1748	2542	8888	5970	6798	8344	5215	1973	1132	1023
1959	425	505	588	1701	3128	1069	270	278	283	122	401	731
1960	415	466	569	1050	4527	4095	1072	281	354	1214	903	630
1961	416	611	597	853	1277	1113	356	237	245	1007	849	618
1962	353	427	586	798	5246	2844	3139	1248	1494	1306	984	709
1963	4819	1471	3008	3219	7103	2981	5831	6129	1616	1579	1138	844
1964	425	2341	863	1899	1313	744	477	487	743	1291	950	686
1965	415	682	17044	10251	4506	1820	4437	3592	2718	1673	1239	859
1966	415	653	1024	1770	1253	1628	2252	372	315	868	874	665
1967	415	1051	3575	5032	4083	4381	2502	6210	7749	3005	1260	810
1968	428	571	683	1676	4740	3065	378	272	283	825	909	583
1969	418	673	1732	12349	6453	3913	4594	8241	4499	1964	1078	770
1970	430	525	4180	16405	4716	3879	277	294	567	1370	972	673
1971	421	1995	4305	3833	2593	4175	2414	4692	4175	2412	1240	934
1972	422	501	1293	1830	2545	3076	1406	965	705	1295	1021	867
1973	419	1521	2605	5559	5897	4543	1832	3645	743	1354	1004	891
1974	418	5291	5277	9622	4483	8957	5127	4303	3130	2024	1203	807
1975	429	516	664	967	4260	4632	1761	4735	5185	2206	1258	982
1976	729	1043	638	872	764	677	193	201	209	87	79	125
1977	291	319	368	618	522	426	179	179	189	77	77	89
1978	291	327	840	4270	2813	5973	3888	3123	3385	1704	1133	1054
1979	418	560	612	1158	2633	2947	1289	3054	725	1293	969	729
1980	421	815	1563	11479	9822	4720	1795	2403	2124	1684	1063	763
1981	429	481	608	1092	1809	1690	278	270	245	119	710	635
1982	353	5747	11560	5546	10479	6893	11840	7259	3263	1869	1149	1289
1983	588	2438	4640	5275	8456	14252	4377	7260	9457	4406	1449	1042
1984	482	5330	11781	4618	4730	3224	957	2331	1185	1436	1034	841
1985	418	2035	1158	865	1684	1059	1283	277	312	514	891	796
1986	420	644	1104	3145	21081	11190	1886	1622	778	1359	982	1032
1987	433	473	573	937	1146	1495	207	201	193	82	79	79
1988	293	315	1198	2191	1067	490	193	200	189	85	79	79
1989	293	1042	817	1181	1638	10573	3233	643	567	1240	995	809
1990	747	551	569	1615	1266	1610	388	264	279	684	997	723
1991	415	508	561	835	695	2187	421	273	286	702	926	669
1992	416	511	561	835	696	2188	421	273	286	690	926	669
AVG.	477	1062	2377	3137	3876	3555	2526	2721	1894	1276	869	671

TABLE A-7 Shortage in Required flow in Yuba River at Marysville
YCWA/DFG 1965 AGREEMENT
Study: a) present level demand; b) current PG&E practice; c) current minimum flow requirements; d) YRI
(CFS)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	0	0	0	0
1923	0	0	0	0	0	0	0	0	0	0	0	0
1924	0	0	0	0	0	0	0	0	0	0	0	0
1925	0	0	0	0	0	0	0	0	0	0	0	0
1926	0	0	0	0	0	0	0	0	0	0	0	0
1927	0	0	0	0	0	0	0	0	0	0	0	0
1928	0	0	0	0	0	0	0	0	0	0	0	0
1929	0	0	0	0	0	0	0	0	0	0	0	0
1930	0	0	0	0	0	0	0	0	0	0	0	0
1931	0	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	0	0	0	0	0
1933	0	0	0	0	0	0	0	0	0	0	0	0
1934	0	0	0	0	0	0	0	0	0	0	0	0
1935	0	0	0	0	0	0	0	0	0	0	0	0
1936	0	0	0	0	0	0	0	0	0	0	0	0
1937	0	0	0	0	0	0	0	0	0	0	0	0
1938	0	0	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	0	0	0	0	0	0	0	0	0
1941	0	0	0	0	0	0	0	0	0	0	0	0
1942	0	0	0	0	0	0	0	0	0	0	0	0
1943	0	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	0	0	0	0	0	0	0	0	0
1945	0	0	0	0	0	0	0	0	0	0	0	0
1946	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	0	0	0	0	0	0	0	0	0	0
1948	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
AVG.	0	0	0	0	0	0	0	0	0	0	0	0

TABLE A-8 Outflow from Englebright Reservoir
YCWA/DFG 1965 AGREEMENT
Study: a) present level demand; b) current PG&E practice; c) current minimum flow requirements; d) YRI
(CFS)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	716	617	617	815	2471	2102	3784	9960	9340	3122	1759	921
1923	683	617	3178	2008	1248	737	3103	3604	2463	2486	1712	1016
1924	679	628	617	815	886	617	427	1045	1001	1011	862	341
1925	490	485	642	636	4404	2799	2495	2805	1335	2096	1648	921
1926	685	617	617	815	4235	1604	2890	1119	1109	1115	1553	876
1927	651	3308	2239	2670	8774	5155	5549	5915	4880	2678	1617	954
1928	679	1284	1573	2151	1822	8352	3934	3289	1130	2110	1584	920
1929	684	617	617	815	667	845	708	1128	1026	1020	1076	852
1930	601	495	2543	2138	2509	2604	1658	1152	1189	2047	1623	946
1931	687	617	620	815	617	767	428	1042	1009	1011	860	340
1932	534	453	671	683	1937	2185	2234	4230	3958	2252	1689	858
1933	689	618	617	815	617	788	928	930	1025	1533	1559	871
1934	594	524	638	1525	1699	1257	467	1070	1045	1013	860	341
1935	597	507	494	1058	1714	1238	6549	4927	3247	2201	1660	891
1936	678	617	617	3360	5522	4002	3992	4147	2698	2305	1671	949
1937	687	617	617	815	1753	1462	2964	4667	2094	2160	1625	857
1938	669	819	4516	2183	4241	8508	5750	10377	7643	3176	1818	980
1939	680	623	617	815	635	1131	528	1066	1006	1008	862	358
1940	559	445	432	3918	6193	8586	4160	3871	1430	2070	1647	951
1941	667	617	2737	4235	5637	5099	3511	6715	3170	2962	1809	1055
1942	682	623	3991	4486	7137	3073	4759	5656	5742	3048	1847	971
1943	684	1392	3210	5570	4245	7908	4341	3187	2108	2347	1799	989
1944	690	617	617	815	1280	1162	610	2213	1598	2112	1662	908
1945	674	833	1668	1112	4651	2436	1652	3572	2024	2241	1737	950
1946	661	1118	4621	4245	1902	1830	2804	3627	1550	2209	1710	916
1947	692	688	1125	815	1790	2426	875	1126	1088	1053	1558	911
1948	624	617	627	2132	617	1092	3768	4057	4015	2373	1775	936
1949	709	617	733	815	748	1482	2340	2219	1187	2049	1625	930
1950	687	617	644	1728	4108	2332	3615	3996	2698	2290	1719	937
1951	651	6717	10245	5220	5030	3442	2932	3442	1376	2230	1685	912
1952	629	1114	3855	3791	5019	4245	6867	11797	8463	4357	2044	1096
1953	694	623	865	5512	3312	1597	3006	3320	5602	3200	1861	978
1954	692	617	617	1799	2959	3498	3891	1947	1128	2104	1643	913
1955	668	617	755	1190	822	617	432	1983	1630	2135	1654	900
1956	687	617	12576	9829	4311	3429	1989	6237	4448	2587	1884	1048
1957	633	623	617	815	3668	3441	841	4037	2472	2266	1745	984
1958	658	623	1548	2231	7930	5166	5917	9067	5993	2881	1896	1281
1959	697	623	621	1407	2676	971	476	1110	1074	1053	1185	995
1960	682	617	618	815	3896	3783	1239	1093	1145	2129	1688	896
1961	684	617	617	815	1102	949	546	1056	1041	1943	1634	884
1962	625	524	524	693	4235	2466	3257	2059	2273	2214	1745	975
1963	4369	1569	2888	2949	6537	2625	5191	6748	2387	2477	1895	1092
1964	671	2181	885	1676	1210	656	648	1313	1532	2213	1733	952
1965	687	660	15853	9072	4245	1700	4192	4366	3498	2575	1997	1104
1966	687	632	954	1560	1100	1498	2393	1193	1108	1798	1652	929
1967	687	931	3261	4235	3822	3813	2133	6736	8483	3901	2009	1055
1968	681	633	617	1436	4241	2849	525	1076	1081	1722	1671	839
1969	653	676	1510	10746	5287	3427	4335	8897	5266	2856	1825	1005
1970	692	627	3807	15174	4245	3430	431	1109	1349	2270	1728	919
1971	690	1895	3874	3452	2412	3746	2453	5465	4952	3313	1995	1181
1972	693	620	1102	1713	2307	2975	1541	1795	1494	2215	1803	1128
1973	651	1378	2442	4635	4907	3903	1903	4455	1524	2253	1761	1139
1974	648	4753	4778	8796	4118	7828	4790	5076	3929	2918	1951	1044
1975	688	620	617	815	3578	4057	1682	5412	5947	3094	1999	1205
1976	884	1036	673	815	617	617	432	1033	993	998	846	375
1977	556	449	432	571	455	432	437	1031	994	1000	857	348
1978	558	432	656	3167	2501	5321	3604	3848	4169	2608	1890	1295
1979	681	620	617	918	2142	2557	1388	3819	1515	2199	1742	992
1980	648	869	1394	10620	8853	4217	1897	3210	2910	2586	1820	997
1981	672	620	617	874	1703	1471	491	1104	1035	1044	1488	899
1982	575	5331	10846	4869	9529	6040	10734	7951	4040	2763	1903	1521
1983	755	2222	4241	4245	7028	12452	3988	7762	10225	5297	2199	1280
1984	692	4879	10829	4245	4251	2877	1058	3116	1963	2338	1795	1087
1985	636	1855	1134	815	1414	851	1418	1102	1105	1439	1668	1048
1986	643	617	1036	2892	18910	10199	2005	2419	1563	2261	1737	1278
1987	665	622	629	815	933	1292	444	1035	1004	1008	857	338
1988	565	435	1055	1943	984	476	393	1030	994	1008	856	338
1989	558	926	776	1052	1501	9598	3332	1449	1345	2144	1751	1070
1990	904	627	619	1369	1073	1445	610	1012	1051	1604	1769	979
1991	676	617	617	815	617	1565	542	1071	1067	1600	1700	927
1992	676	617	617	815	617	1565	542	1071	1067	1588	1700	927
AVG.	716	1072	2187	2761	3382	3136	2503	3473	2677	2187	1637	927

TABLE A-9 Flow in Yuba River at Smartville
YCWA/DFG 1965 AGREEMENT
Study: a) present level demand; b) current PG&E practice; c) current minimum flow requirements; d) YRI
(CFS)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	729	642	735	904	2795	2431	4222	10337	9410	3138	1781	939
1923	693	689	3409	2143	1348	828	3316	3633	2486	2506	1733	1016
1924	679	642	664	872	1009	657	433	1045	1002	1011	862	341
1925	526	523	741	717	4886	2966	2619	2834	1352	2116	1651	921
1926	686	648	669	890	4567	1733	3101	1131	1126	1125	1553	876
1927	669	3551	2379	2844	9608	5599	5829	5993	4912	2696	1638	972
1928	689	1405	1681	2271	1967	8981	4075	3316	1150	2130	1604	920
1929	685	669	672	843	742	960	798	1140	1041	1020	1077	852
1930	601	495	2765	2279	2697	2824	1746	1170	1205	2067	1624	946
1931	688	672	629	891	672	865	439	1043	1009	1011	860	340
1932	547	490	791	779	2104	2402	2470	4376	3979	2272	1709	858
1933	690	627	657	874	648	904	1048	1012	1041	1533	1559	871
1934	609	527	751	1621	1822	1358	474	1083	1049	1013	860	341
1935	599	584	539	1162	1841	1408	7065	5035	3269	2221	1681	891
1936	680	625	645	3760	6285	4178	4122	4174	2716	2326	1692	950
1937	688	617	658	864	2272	1882	3268	4744	2113	2181	1646	857
1938	677	1007	5014	2303	5373	9590	6125	10493	7660	3195	1839	997
1939	683	627	625	878	697	1278	539	1078	1007	1008	862	359
1940	560	445	437	4281	6695	9135	4363	3885	1452	2091	1668	951
1941	676	664	2966	4650	6174	5526	3865	6836	3189	2981	1828	1073
1942	682	668	4277	4808	7762	3301	5175	5877	5757	3068	1866	989
1943	686	1506	3358	6064	4529	8618	4509	3214	2124	2366	1818	1007
1944	691	621	664	882	1492	1359	705	2224	1615	2113	1662	908
1945	679	967	1737	1148	5071	2599	1741	3594	2046	2262	1757	950
1946	679	1223	5030	4406	2016	1999	2904	3640	1572	2230	1731	916
1947	693	775	1186	822	1895	2601	920	1140	1104	1053	1559	911
1948	659	624	631	2241	648	1239	4055	4144	4034	2376	1776	936
1949	709	626	907	867	880	1847	2480	2237	1205	2069	1626	930
1950	687	647	676	2013	4465	2537	3765	4026	2722	2310	1740	937
1951	678	7202	10794	5793	5381	3766	3015	3542	1397	2250	1706	912
1952	663	1223	4145	4368	5788	4853	7321	12019	8495	4380	2065	1115
1953	694	645	1031	5878	3365	1786	3159	3395	5619	3220	1882	982
1954	693	687	664	2010	3183	3742	4067	1965	1144	2125	1644	913
1955	670	669	870	1291	906	671	493	2052	1646	2136	1655	900
1956	687	672	13666	10872	4770	3658	2075	6325	4465	2607	1905	1066
1957	665	641	625	911	3896	3651	931	4235	2486	2287	1749	984
1958	674	648	1696	2418	8498	5720	6684	9147	6009	2901	1917	1289
1959	697	644	645	1572	2947	1055	499	1123	1091	1053	1186	995
1960	682	618	631	945	4272	3993	1295	1111	1162	2150	1688	896
1961	685	689	649	841	1209	1071	585	1067	1058	1943	1634	884
1962	625	552	593	758	4834	2715	3336	2077	2297	2234	1766	975
1963	4780	1603	3002	3111	6888	2900	5796	6899	2402	2497	1916	1110
1964	686	2350	917	1811	1274	735	693	1324	1548	2217	1733	952
1965	687	752	16597	9849	4429	1821	4532	4409	3516	2594	2016	1122
1966	687	721	1039	1687	1194	1599	2458	1204	1125	1799	1652	929
1967	687	1079	3489	4708	3979	4229	2557	6946	8520	3918	2029	1074
1968	692	685	690	1581	4539	3002	585	1093	1098	1740	1691	839
1969	672	755	1680	11722	6074	3784	4687	9019	5282	2874	1845	1024
1970	702	657	4057	15928	4571	3767	498	1124	1368	2288	1747	934
1971	691	2031	4172	3680	2523	4033	2598	5513	4969	3333	2014	1198
1972	694	638	1246	1786	2452	3057	1617	1807	1511	2220	1803	1128
1973	671	1539	2581	5183	5557	4358	2024	4474	1542	2272	1781	1149
1974	670	5144	5115	9327	4372	8626	5193	5119	3953	2934	1970	1061
1975	698	650	680	903	3982	4421	1889	5509	5961	3109	2017	1221
1976	954	1130	693	852	703	678	441	1046	1008	1000	846	376
1977	556	461	435	603	494	454	437	1031	995	1000	857	348
1978	558	456	795	3819	2689	5764	3971	3924	4188	2627	1910	1310
1979	682	669	656	1058	2436	2813	1483	3862	1531	2219	1746	992
1980	672	920	1531	11129	9468	4594	2001	3233	2930	2604	1840	1014
1981	683	627	649	999	1770	1626	516	1117	1053	1044	1488	899
1982	599	5652	11310	5297	10175	6653	11653	8049	4056	2782	1923	1537
1983	813	2429	4520	4909	7992	13700	4426	7990	10240	5316	2218	1298
1984	723	5224	11467	4505	4581	3150	1163	3153	1981	2357	1814	1100
1985	666	2036	1192	848	1577	1000	1484	1114	1122	1440	1668	1049
1986	664	711	1120	3045	20270	10904	2097	2449	1583	2280	1757	1293
1987	681	625	638	880	1062	1437	451	1048	1006	1008	857	338
1988	565	452	1167	2093	1037	502	436	1042	995	1008	856	338
1989	558	1070	842	1132	1586	10198	3427	1467	1368	2163	1770	1070
1990	972	670	633	1506	1191	1568	627	1080	1065	1605	1769	979
1991	676	642	626	830	658	1950	622	1092	1082	1618	1700	927
1992	677	645	626	830	659	1951	622	1092	1082	1606	1700	927
AVG.	733	1151	2339	2991	3693	3430	2685	3532	2694	2201	1648	933

TABLE A-10 Required Carryover Storage at New Bullards Bar Reservoir
YCWA/DFG 1965 AGREEMENT
Study: a) present level demand; b) current PG&E practice; c) current minimum flow requirements; d) YRI

Year	Ac-ft
1922	488000
1923	488000
1924	347000
1925	488000
1926	488000
1927	488000
1928	488000
1929	488000
1930	488000
1931	321000
1932	488000
1933	488000
1934	311000
1935	488000
1936	488000
1937	488000
1938	488000
1939	488000
1940	488000
1941	488000
1942	488000
1943	488000
1944	488000
1945	488000
1946	488000
1947	488000
1948	488000
1949	488000
1950	488000
1951	488000
1952	488000
1953	488000
1954	488000
1955	488000
1956	488000
1957	488000
1958	488000
1959	488000
1960	488000
1961	488000
1962	488000
1963	488000
1964	488000
1965	488000
1966	488000
1967	488000
1968	488000
1969	488000
1970	488000
1971	488000
1972	488000
1973	488000
1974	488000
1975	488000
1976	475000
1977	311000
1978	488000
1979	488000
1980	488000
1981	488000
1982	488000
1983	488000
1984	488000
1985	488000
1986	488000
1987	488000
1988	311000
1989	488000
1990	488000
1991	488000
1992	488000
AVG.	476000

TABLE B-1 Total Outflow from New Bullards Bar Reservoir
YCWA's PROPOSED INSTREAM FLOWS
Study: a) present level demand; b) current PG&E practice; c) YCWA proposed minimum flows; d) YRI
(CFS)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	700	546	311	287	1235	1226	2544	6796	6061	2766	1712	889
1923	582	413	2107	1412	820	267	2215	2668	2082	2415	1669	954
1924	554	526	415	449	283	517	533	1076	927	1039	891	378
1925	334	366	266	262	2845	940	1889	2124	1593	1715	1617	886
1926	544	502	444	396	2743	762	2041	2255	1613	1193	1033	505
1927	494	1338	1690	1994	7032	2886	4038	3347	3695	2375	1595	918
1928	595	825	1164	1611	1247	5755	2682	1754	1569	1547	1577	892
1929	605	472	457	513	284	255	261	1033	1132	1177	1039	512
1930	519	509	1215	1525	1689	1626	1154	2207	1581	1191	1024	623
1931	599	400	609	345	336	256	495	1046	905	1039	886	384
1932	398	399	264	259	725	1207	1256	3255	2931	2201	1654	843
1933	566	558	542	479	495	258	262	723	1048	1190	1314	855
1934	437	440	255	947	1064	687	596	1065	901	1034	886	382
1935	450	300	368	272	1182	589	4336	3581	2662	2153	1627	868
1936	584	585	613	1677	4032	2197	3421	2742	2136	2272	1648	914
1937	616	597	589	533	286	254	2061	3576	1949	2133	1606	847
1938	576	337	3496	1328	2888	5471	4677	6487	5051	2809	1786	935
1939	569	595	630	428	305	254	425	1236	1153	1136	1039	499
1940	492	508	549	814	5266	5358	2928	2190	1620	1801	1624	919
1941	586	480	1943	3157	4786	2836	2523	4500	2511	2881	1755	1000
1942	593	469	2864	4494	4745	1240	3607	3773	3995	2715	1775	910
1943	611	1036	2540	4960	2931	4758	2871	1756	1881	2271	1722	937
1944	606	600	540	414	283	253	417	2049	1559	1658	1627	875
1945	549	409	1332	921	3995	507	1140	2665	1881	2217	1674	910
1946	570	718	4124	2252	1099	1079	2235	2494	1592	2040	1691	893
1947	621	331	771	650	1273	1360	500	1287	1129	1157	1019	788
1948	497	493	560	1599	412	253	2065	3150	3124	2325	1756	918
1949	625	593	256	454	284	254	1568	2163	1643	1284	1613	892
1950	584	502	581	510	2515	1405	2733	2738	2245	2234	1699	907
1951	559	5554	6926	3698	3668	1442	1752	1888	1618	1874	1671	893
1952	538	744	2868	2044	4443	1686	5390	7341	5337	3708	2030	1066
1953	634	532	256	4806	1373	784	2305	2554	3847	2901	1847	950
1954	619	405	470	884	2012	2325	3058	2003	1578	1207	1435	895
1955	514	456	255	668	404	336	460	1123	1472	2126	1641	883
1956	520	358	9734	6990	3003	1646	1670	3854	3042	2498	1865	1016
1957	515	494	637	335	2440	2262	466	2762	1966	2236	1725	946
1958	570	524	1064	1590	6877	2470	3905	5998	3892	2576	1877	1251
1959	634	513	577	635	1476	595	448	1242	1126	1162	1041	474
1960	500	495	509	258	2216	2738	904	2154	1550	1207	1041	652
1961	557	430	461	519	501	252	276	823	838	1947	1620	871
1962	476	452	353	295	3225	698	2618	2101	1663	2164	1708	950
1963	3344	816	2373	2321	5981	760	3602	3988	1994	2380	1847	1066
1964	573	1417	682	919	822	253	462	2125	1521	1121	1248	929
1965	574	426	11836	6470	2536	936	2993	2609	2501	2493	1931	1062
1966	624	357	477	916	635	941	1848	2151	1586	1170	996	498
1967	613	307	2421	3104	2483	2670	1149	5066	5460	3298	1920	1011
1968	576	458	446	751	3945	1215	549	2115	1598	1082	1017	455
1969	497	433	358	8573	3308	1355	3341	5111	3574	2489	1739	964
1970	616	522	2830	12069	2760	1702	684	1992	1519	1109	987	659
1971	610	1390	2454	2308	1832	2392	1819	4206	3103	2951	1905	1147
1972	624	557	295	1213	1383	2138	948	2124	1504	1205	1755	1051
1973	490	988	1967	4290	3117	1634	1520	3053	1568	2028	1714	1077
1974	552	4676	3428	6826	1883	5693	3569	3230	2892	2778	1851	971
1975	610	512	499	341	2177	2584	972	4128	4225	2671	1851	1046
1976	587	580	639	498	306	382	545	1004	761	883	748	277
1977	421	422	508	443	410	459	600	1009	781	938	854	327
1978	462	452	282	266	1013	3994	2587	2720	2720	2540	1838	1213
1979	594	495	533	269	1070	1517	947	2897	1585	1975	1694	958
1980	487	697	913	8849	6196	1944	1482	1812	2091	2487	1754	898
1981	480	567	597	255	1139	626	408	1258	1106	1104	990	498
1982	431	4967	7899	3586	6884	3286	7225	4642	2753	2663	1835	1404
1983	573	1685	3575	2401	6156	8210	2889	5197	6045	3855	2126	1209
1984	444	4174	7813	3145	2330	2057	612	1583	1634	2261	1746	1024
1985	508	1196	866	620	773	253	848	2220	1590	1143	982	410
1986	424	404	353	2292	13552	6192	1032	940	1419	2078	1688	1211
1987	466	602	644	504	282	594	540	1014	857	973	853	355
1988	486	456	256	1240	728	368	495	980	810	953	854	372
1989	459	265	254	695	1174	6799	2644	1904	1531	1143	1352	1006
1990	549	477	583	762	545	891	529	1027	963	1104	1525	902
1991	485	417	557	524	493	255	259	846	765	1961	1661	895
1992	438	417	557	524	493	255	259	846	765	2003	1661	895
AVG.	581	816	1584	1896	2326	1751	1804	2583	2131	1921	1506	841

TABLE B-2 New Bullards Bar Reservoir End-of-month Storage
YCWA's PROPOSED INSTREAM FLOWS
Study: a) present level demand; b) current PG&E practice; c) YCWA proposed minimum flows; d) YRI
(AF)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	549619	531770	570718	619640	720000	790000	890000	966000	950000	840000	750000	705000
1923	679238	680830	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1924	682726	660075	658958	648338	694859	694275	725132	689924	638958	576521	522182	504758
1925	498321	502588	548087	589633	720000	790000	890000	966000	929403	840000	750000	705000
1926	680775	667257	667735	674201	720000	790000	890000	848480	786501	721022	662626	638644
1927	620935	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1928	677318	705000	705000	705000	720000	790000	890000	966000	918311	840000	750000	705000
1929	674697	661480	654707	642551	667356	720111	799379	850279	832217	768056	708228	682720
1930	655704	630849	705000	705000	720000	790000	890000	890281	845844	787255	733018	705000
1931	668670	664321	632680	637316	646581	702302	729855	698875	656477	593811	541792	523575
1932	509992	504081	581142	649255	720000	790000	890000	966000	950000	840000	750000	705000
1933	675520	649959	626900	614325	604619	662945	754842	845188	886158	825918	750000	705000
1934	685944	670457	700754	705000	720000	790000	827920	799814	761279	701819	650478	632538
1935	611563	626145	638196	705000	720000	790000	890000	966000	950000	840000	750000	705000
1936	680862	663239	649272	705000	720000	790000	890000	966000	950000	840000	750000	705000
1937	674328	647056	623937	603248	665650	773156	890000	966000	950000	840000	750000	705000
1938	676930	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1939	684484	672034	661076	660598	665572	751125	858632	834713	780125	713865	650393	623062
1940	602238	582125	565298	705000	720000	790000	890000	966000	934805	840000	750000	705000
1941	679801	683414	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1942	683236	688514	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1943	676934	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1944	679540	657635	642934	649102	685315	770707	866398	944572	923583	840000	750000	705000
1945	680415	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1946	687357	705000	705000	705000	720000	790000	890000	966000	942085	840000	750000	705000
1947	677632	705000	705000	692886	720000	790000	890000	884201	857674	798198	744699	705000
1948	705000	701280	688342	705000	718015	746289	890000	966000	950000	840000	750000	705000
1949	676340	662111	667011	658047	664820	751234	890000	950746	905253	840000	750000	705000
1950	675234	658863	635800	705000	720000	790000	890000	966000	950000	840000	750000	705000
1951	701979	705000	705000	705000	720000	790000	890000	966000	931731	840000	750000	705000
1952	698047	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1953	676610	659823	693659	705000	720000	790000	890000	966000	950000	840000	750000	705000
1954	682449	690939	694112	705000	720000	790000	890000	932156	883916	828219	750000	705000
1955	677282	669357	702915	705000	720000	768980	850415	966000	950000	840000	750000	705000
1956	680949	679326	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1957	696818	689177	675876	685044	720000	790000	890000	966000	950000	840000	750000	705000
1958	693746	694852	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1959	674596	658703	638652	705000	720000	790000	872119	868048	827391	767176	711970	694995
1960	671623	647414	623158	650202	720000	790000	890000	877338	841482	787404	736384	705000
1961	676169	674848	682331	666353	720000	788882	883603	947920	945990	840000	750000	705000
1962	685519	669078	688426	695560	720000	790000	890000	946345	950000	840000	750000	705000
1963	705000	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1964	687173	705000	705000	705000	720000	770856	869246	885080	860787	812126	750000	705000
1965	697378	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1966	681231	703162	705000	705000	720000	790000	890000	893027	827204	768617	715752	694689
1967	665336	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1968	687546	673517	685489	705000	720000	790000	872613	848490	795439	740032	688110	662127
1969	644714	663432	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1970	688989	678440	705000	705000	720000	790000	847517	854752	828879	784287	736610	705000
1971	689496	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1972	688775	683193	705000	705000	720000	790000	890000	921429	894993	840000	750000	705000
1973	703423	705000	705000	705000	720000	790000	890000	966000	941219	840000	750000	705000
1974	700719	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1975	685546	677884	673593	696103	720000	790000	890000	966000	950000	840000	750000	705000
1976	705000	705000	703311	696054	715745	759026	786273	781658	748190	697890	658255	646789
1977	627338	609601	585668	570792	560449	548301	531100	502195	465597	409534	359302	342725
1978	318468	304865	382114	655778	720000	790000	890000	966000	950000	840000	750000	705000
1979	681139	670327	654759	705000	720000	790000	890000	966000	940256	840000	750000	705000
1980	704437	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1981	683615	664295	666127	694228	720000	790000	880495	883815	841821	783278	727245	704001
1982	703746	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1983	705000	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1984	704791	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1985	690736	705000	705000	705000	720000	782914	890000	858860	797145	739905	688561	675464
1986	657857	664222	700050	705000	720000	790000	890000	966000	943200	840000	750000	705000
1987	693275	673774	652210	652289	718164	790000	839979	825701	788701	737042	690089	674139
1988	651467	634846	701060	705000	720000	758135	797560	790800	767597	720360	671920	654225
1989	630860	689328	702808	705000	720000	790000	890000	906577	872692	819284	750000	705000
1990	705000	700745	686762	705000	720000	790000	868231	869100	883358	829929	750000	705000
1991	678446	670105	641566	622960	612753	749286	866940	933100	943226	840000	750000	705000
1992	681334	672990	644450	625843	615320	751859	869520	935661	945758	840000	750000	705000
AVG.	667253	666822	672502	685639	708102	776343	868983	917452	893877	805515	726727	687809

TABLE B-3 Total Energy Production at New Bullards Bar Reservoir
YCWA's PROPOSED INSTREAM FLOWS
Study: a) present level demand; b) current PG&E practice; c) YCWA proposed minimum flows; d) YRI
(MWH)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	49367	36937	21831	20418	80620	89870	183252	269514	260820	208413	126084	62857
1923	42280	28930	153097	102832	53991	19587	159542	202019	153188	181961	122916	67451
1924	40278	36818	29940	32360	19161	37580	37595	78388	64751	74103	62463	25376
1925	23085	24493	18500	18500	185181	68891	136021	160839	117053	128934	119086	62645
1926	39525	35124	32088	28651	180147	55866	147027	168914	115570	87456	75025	35163
1927	35388	93488	123034	145212	236581	211218	258983	248057	260820	178947	117465	64907
1928	43234	57988	84732	117323	85011	263415	193145	132801	115162	116142	116139	63069
1929	43923	32980	32959	36930	18500	18500	18500	76630	81569	86805	75994	36007
1930	37520	35434	87791	111061	111201	119190	83148	166165	114579	88160	75122	44000
1931	43466	27935	43790	24767	21820	18500	34902	76277	63426	74376	62508	25926
1932	27636	26753	18500	18500	49207	88498	90497	242219	214950	165834	121811	59606
1933	41067	38984	38919	34270	31908	18500	18500	53327	75959	88855	96696	60454
1934	31758	30813	18500	68949	70054	50369	42600	78812	64118	75521	64129	26526
1935	32205	20753	26394	19667	77823	43186	258983	263641	195837	162217	119822	61373
1936	42402	40918	44190	121408	245031	160983	240317	207603	157161	171184	121369	64624
1937	44720	41674	42266	38072	18500	18500	148170	263282	143402	160709	118275	59889
1938	41802	23721	247260	96716	189866	263415	258983	269514	260820	211653	131536	66108
1939	41330	41675	45518	30896	19900	18500	30387	92104	82422	83205	75304	34624
1940	35122	34939	38788	58410	245031	263415	210214	165806	119058	135481	119601	64977
1941	42562	33639	141235	226851	236581	207883	181719	269514	184753	216826	129297	70702
1942	43092	32898	208170	261667	236581	90874	252468	269514	260820	204569	130770	64341
1943	44339	72784	184923	261667	192341	263415	206603	132927	138399	171109	126866	66250
1944	44031	41936	38877	29789	19161	18500	29887	154689	114363	124600	119822	61868
1945	39877	28760	96965	67079	236581	37177	82093	201789	138399	167040	123285	64341
1946	41434	50498	261667	163992	72358	79079	161000	188811	117055	153594	124537	63140
1947	45116	23286	56115	47307	83744	99706	36012	96837	81864	85871	74831	55699
1948	36167	34704	40712	116274	28106	18500	147964	235543	227243	175179	129325	64907
1949	45402	41452	18500	32785	18500	18500	112400	163594	120421	96238	118791	63069
1950	42419	35072	41801	36873	165567	102983	196810	207328	165181	168321	125172	64129
1951	40686	253175	261667	261538	234565	105700	126208	142965	118882	140913	123064	63140
1952	39147	52422	208697	148853	245031	123592	258983	269514	260820	269514	149511	75367
1953	46028	37177	18500	261453	90397	57478	166048	193341	260820	218154	136029	67168
1954	44964	28410	34153	64333	132428	170379	218358	151331	115267	90133	105646	63281
1955	37321	31898	18500	48656	26603	24611	32930	84768	108306	160182	120854	62433
1956	37794	25076	261032	261667	203456	120608	120268	269514	222091	188216	137355	71833
1957	37470	34707	46185	24291	160421	165798	33592	209108	144653	168472	127087	66886
1958	41463	36827	77398	115794	236581	181007	258983	269514	260820	194094	138239	88441
1959	46002	35836	41525	45939	97178	43626	32174	93105	81224	85635	76137	33405
1960	36281	34581	36488	18500	150337	200670	65134	161907	112114	89279	76357	46024
1961	40447	30092	33397	37573	32910	18500	19844	62240	61542	146690	119307	61585
1962	34586	31651	25579	21447	208739	51175	188534	158884	122163	163046	125789	67168
1963	238198	57507	172771	168983	236581	55719	252111	269514	146713	179323	136029	75367
1964	41651	99674	49634	66933	56031	18500	33109	159496	110377	83350	91756	65684
1965	41758	30005	261667	261667	166984	68599	214288	197535	184003	187839	142217	75084
1966	45309	25073	34710	66715	41811	68982	133089	161948	114779	86274	72859	35078
1967	44398	21530	176307	223536	163468	195663	82788	269514	260820	243784	141407	71469
1968	41865	32124	32317	54588	245031	89035	39485	158129	114601	79433	74111	31834
1969	35825	30194	25942	261667	213411	99283	235539	269514	255748	187538	128073	68158
1970	44817	36602	205604	261667	181676	124735	49041	148626	109483	81878	72360	46503
1971	44365	97801	178690	168068	120612	175312	130977	269514	225923	221463	140347	81091
1972	45361	39113	21442	88341	94284	156665	68254	160306	109903	90232	129252	74307
1973	35703	69586	143221	261667	202824	119771	109491	229242	115331	152685	126231	76144
1974	40210	253154	243235	261667	123953	263415	249845	240660	212419	209317	136324	68653
1975	44368	35920	36091	24750	143271	189418	69982	269514	260820	201253	136369	73953
1976	42721	40876	46532	36254	20864	27935	38719	73845	54079	64446	54200	19329
1977	30214	29199	36108	31324	26099	32242	40602	70069	51968	63636	56927	20781
1978	30154	28324	18500	18500	66386	263415	186297	205919	200142	191381	135366	85756
1979	43165	34682	38477	19508	70449	111198	68218	218959	116520	148690	124758	67734
1980	35450	49087	66455	261667	245031	142446	106748	137184	153850	187387	129178	63493
1981	34869	39710	43121	18500	74946	45888	29321	94533	80058	81673	72539	35151
1982	31369	253205	261667	253597	236581	236275	258983	269514	202579	200651	135145	99255
1983	41701	118745	252855	174848	236581	263415	207749	269514	260820	269514	156583	85473
1984	32337	253223	261667	226066	158872	150772	44088	119882	120225	170356	128589	72398
1985	36939	84217	63032	45160	50896	18500	61039	166495	114217	83903	71604	28739
1986	30639	28181	25595	166873	236581	263415	74352	71169	104353	156498	124316	85614
1987	33869	42245	46457	36311	18500	43559	38667	75350	61290	71407	62165	24878
1988	35052	31722	18500	90280	49622	26893	35205	72222	57662	69762	62072	25962
1989	33017	18500	18500	50568	77296	263415	190463	143548	111505	85164	99469	71126
1990	39954	33576	42374	55374	35886	65310	38005	76945	69941	82457	112267	63776
1991	35222	29173	40150	37585	31832	18500	18500	63833	56117	147705	122327	63281
1992	31818	29192	40175	37609	32950	18500	18500	63856	56137	150846	122327	63281
AVG.	42043	52245	87352	104360	122634	107669	121158	171817	143243	143486	110656	59297

TABLE B-4 Total Delivery at Daguerre Point Dam
YCWA's PROPOSED INSTREAM FLOWS
Study: a) present level demand; b) current PG&E practice; c) YCWA proposed minimum flows; d) YRI
(AF)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
1922	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1923	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1924	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1925	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1926	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1927	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1928	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1929	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1930	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1931	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1932	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1933	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1934	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1935	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1936	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1937	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1938	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1939	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1940	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1941	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1942	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1943	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1944	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1945	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1946	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1947	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1948	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1949	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1950	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1951	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1952	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1953	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1954	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1955	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1956	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1957	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1958	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1959	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1960	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1961	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1962	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1963	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1964	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1965	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1966	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1967	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1968	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1969	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1970	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1971	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1972	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1973	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1974	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1975	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1976	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1977	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1978	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1979	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1980	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1981	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1982	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1983	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1984	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1985	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1986	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1987	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1988	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1989	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1990	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1991	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1992	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
AVG.	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847

TABLE B-5 Total Deliveries and Deficiencies at Daguerre Point Diversion Dam
YCWA's PROPOSED INSTREAM FLOWS
Study: a) present level demand; b) current PG&E practice; c) YCWA proposed minimum flows; d) YRI

Water Year	Year Type (YRI)	Total Annual Delivery (ac-ft)	Total Annual Demand (ac-ft)	Deficiency, Percent of Demand %	Deficiency, Volume (ac-ft)
1922	W	273847	273847	0.0%	0
1923	AN	273847	273847	0.0%	0
1924	C	273847	273847	0.0%	0
1925	BN	273847	273847	0.0%	0
1926	BN	273847	273847	0.0%	0
1927	W	273847	273847	0.0%	0
1928	AN	273847	273847	0.0%	0
1929	D	273847	273847	0.0%	0
1930	BN	273847	273847	0.0%	0
1931	C	273847	273847	0.0%	0
1932	BN	273847	273847	0.0%	0
1933	D	273847	273847	0.0%	0
1934	C	273847	273847	0.0%	0
1935	AN	273847	273847	0.0%	0
1936	AN	273847	273847	0.0%	0
1937	AN	273847	273847	0.0%	0
1938	W	273847	273847	0.0%	0
1939	D	273847	273847	0.0%	0
1940	AN	273847	273847	0.0%	0
1941	W	273847	273847	0.0%	0
1942	W	273847	273847	0.0%	0
1943	W	273847	273847	0.0%	0
1944	BN	273847	273847	0.0%	0
1945	AN	273847	273847	0.0%	0
1946	AN	273847	273847	0.0%	0
1947	D	273847	273847	0.0%	0
1948	AN	273847	273847	0.0%	0
1949	BN	273847	273847	0.0%	0
1950	AN	273847	273847	0.0%	0
1951	W	273847	273847	0.0%	0
1952	W	273847	273847	0.0%	0
1953	W	273847	273847	0.0%	0
1954	AN	273847	273847	0.0%	0
1955	D	273847	273847	0.0%	0
1956	W	273847	273847	0.0%	0
1957	AN	273847	273847	0.0%	0
1958	W	273847	273847	0.0%	0
1959	D	273847	273847	0.0%	0
1960	BN	273847	273847	0.0%	0
1961	C	273847	273847	0.0%	0
1962	BN	273847	273847	0.0%	0
1963	W	273847	273847	0.0%	0
1964	BN	273847	273847	0.0%	0
1965	W	273847	273847	0.0%	0
1966	BN	273847	273847	0.0%	0
1967	W	273847	273847	0.0%	0
1968	BN	273847	273847	0.0%	0
1969	W	273847	273847	0.0%	0
1970	W	273847	273847	0.0%	0
1971	W	273847	273847	0.0%	0
1972	BN	273847	273847	0.0%	0
1973	AN	273847	273847	0.0%	0
1974	W	273847	273847	0.0%	0
1975	W	273847	273847	0.0%	0
1976	C	273847	273847	0.0%	0
1977	C	273847	273847	0.0%	0
1978	AN	273847	273847	0.0%	0
1979	BN	273847	273847	0.0%	0
1980	W	273847	273847	0.0%	0
1981	D	273847	273847	0.0%	0
1982	W	273847	273847	0.0%	0
1983	W	273847	273847	0.0%	0
1984	W	273847	273847	0.0%	0
1985	BN	273847	273847	0.0%	0
1986	W	273847	273847	0.0%	0
1987	C	273847	273847	0.0%	0
1988	C	273847	273847	0.0%	0
1989	BN	273847	273847	0.0%	0
1990	D	273847	273847	0.0%	0
1991	C	273847	273847	0.0%	0
1992	C	273847	273847	0.0%	0
AVG.		273847	273847	0.0%	0

TABLE B-6 Flow in Yuba River at Marysville
YCWA's PROPOSED INSTREAM FLOWS
Study: a) present level demand; b) current PG&E practice; c) YCWA proposed minimum flows; d) YRI
(CFS)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	655	587	748	775	2915	2552	4184	9677	8936	1967	1003	676
1923	467	632	3434	2231	1412	860	3196	2822	1683	1581	953	755
1924	455	587	675	762	1103	712	376	292	114	108	108	135
1925	299	496	758	770	5986	1802	2437	2015	890	852	871	658
1926	408	588	688	780	5044	1625	2984	1576	891	294	261	261
1927	402	2493	2403	2960	11456	4623	5701	5093	4416	1517	856	709
1928	463	1307	1689	2350	2062	9433	3785	2490	881	687	822	657
1929	451	615	694	739	786	998	601	634	440	272	261	261
1930	346	466	2370	2371	2822	2934	1545	1570	890	304	261	398
1931	405	615	653	780	751	889	385	293	122	108	108	135
1932	299	496	825	842	1715	2512	2375	3632	3190	1344	929	594
1933	408	576	678	770	736	941	885	525	440	292	548	608
1934	346	472	763	1613	1901	1391	387	305	136	110	108	135
1935	299	535	584	888	1923	1482	7256	4182	2476	1293	901	628
1936	454	572	673	3847	8093	2977	3918	3347	1915	1395	910	687
1937	458	568	684	759	2628	2132	3123	3944	1312	1250	863	591
1938	463	959	5806	1862	6829	9369	6044	9613	7139	2013	1057	736
1939	453	575	648	772	760	1341	467	569	428	264	263	261
1940	346	463	543	2825	8359	8265	4108	3048	896	910	886	687
1941	458	605	2971	5326	7423	4542	3674	6048	2386	2061	1051	814
1942	452	608	4328	6506	7852	2126	5216	5028	5244	1887	1092	730
1943	452	1415	3389	7884	4397	7794	4224	2388	1333	1443	1044	748
1944	455	572	688	772	1634	1453	658	1568	895	750	880	645
1945	402	942	1711	1166	6726	1432	1552	2767	1243	1328	979	687
1946	469	1116	6727	3307	1785	2071	2707	2805	896	1168	948	650
1947	453	669	1158	726	2064	2680	701	549	450	307	264	559
1948	426	473	556	2336	631	1298	4014	3357	3214	1445	991	670
1949	469	573	975	749	964	2058	2357	1660	890	411	841	666
1950	402	586	700	2093	4707	2635	3608	3207	1907	1382	955	671
1951	479	8888	11088	6060	5270	2628	2799	2744	895	1027	921	646
1952	485	1103	4273	4765	7474	3935	7319	11189	7998	3188	1280	849
1953	454	588	1094	7499	1759	1870	2994	2607	5106	2031	1097	716
1954	453	629	680	2038	3334	3867	3917	1687	888	307	667	647
1955	466	612	824	1321	958	720	419	1065	845	1200	870	634
1956	346	508	15940	11370	4720	2481	1861	5521	3671	1691	1120	800
1957	473	589	652	798	4006	3754	720	3509	1697	1354	964	718
1958	464	594	1624	2542	10256	4832	6798	8247	5486	1714	1132	1023
1959	457	588	666	1511	3128	1069	429	540	442	307	268	261
1960	346	465	550	911	4596	4095	1072	1568	863	307	271	401
1961	403	642	667	741	1305	1113	375	301	139	1028	849	618
1962	299	490	610	657	6396	1915	3139	1569	1165	1306	984	709
1963	5341	931	3008	3219	8471	1745	5932	6032	1616	1579	1138	844
1964	468	2297	863	1899	1313	744	681	1609	895	295	497	686
1965	402	696	18524	10251	3389	1350	4437	3592	2718	1673	1239	859
1966	447	651	994	1770	1253	1628	2252	1563	893	296	272	263
1967	402	892	3575	5619	3433	4381	2502	6210	8019	2746	1260	810
1968	468	624	712	1556	5823	2053	670	1559	861	338	293	266
1969	405	667	1056	13830	6184	2677	4695	8143	4769	1706	1078	770
1970	462	600	4075	17885	4091	2965	704	1581	862	309	286	448
1971	455	1960	4305	3833	2593	4175	2414	4692	4446	2154	1240	934
1972	454	585	1181	1830	2545	3076	1406	1692	890	401	1021	867
1973	406	1534	2605	7039	5628	3308	1832	3645	892	1211	1004	891
1974	470	6767	5278	9623	2845	9054	5127	4206	3130	2024	1203	807
1975	464	591	706	783	4299	4632	1761	4735	5456	1947	1258	982
1976	729	1043	665	749	780	718	385	304	142	118	110	137
1977	299	475	547	632	645	588	371	282	122	108	108	135
1978	299	485	849	3704	1927	6071	3787	3123	3385	1704	1133	1054
1979	458	613	675	1004	2633	2947	1289	3054	890	1135	969	729
1980	408	829	1563	12960	9562	3485	1795	2403	2124	1684	1063	763
1981	479	576	675	1059	1615	1690	428	570	442	304	263	270
1982	346	7267	11561	5547	10210	5755	11841	7161	3263	1869	1149	1289
1983	588	2438	5016	4982	9732	13114	4276	7260	9728	4147	1449	1042
1984	486	6857	11782	4247	3643	3132	957	2331	1185	1436	1034	841
1985	474	1977	1158	838	1714	1059	1283	1564	890	309	266	261
1986	411	655	703	3064	22450	10052	1785	1622	893	1249	982	1032
1987	488	575	662	776	1088	1465	399	304	126	113	110	137
1988	301	480	756	2127	1067	605	385	303	122	116	110	137
1989	301	831	598	1145	1638	10670	3132	1613	880	321	659	809
1990	747	613	657	1467	1266	1610	547	526	438	281	834	723
1991	346	483	546	621	654	2186	420	299	142	1168	926	669
1992	300	486	547	621	654	2186	420	299	142	1205	926	669
AVG.	501	1160	2437	3161	3969	3188	2567	2927	2045	1101	779	628

TABLE B-7 Shortage in Required flow in Yuba River at Marysville
YCWA's PROPOSED INSTREAM FLOWS
Study: a) present level demand; b) current PG&E practice; c) YCWA proposed minimum flows; d) YRI
(CFS)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	0	0	0	0
1923	0	0	0	0	0	0	0	0	0	0	0	0
1924	0	0	0	0	0	0	0	0	0	0	0	0
1925	0	0	0	0	0	0	0	0	0	0	0	0
1926	0	0	0	0	0	0	0	0	0	0	0	0
1927	0	0	0	0	0	0	0	0	0	0	0	0
1928	0	0	0	0	0	0	0	0	0	0	0	0
1929	0	0	0	0	0	0	0	0	0	0	0	0
1930	0	0	0	0	0	0	0	0	0	0	0	0
1931	0	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	0	0	0	0	0
1933	0	0	0	0	0	0	0	0	0	0	0	0
1934	0	0	0	0	0	0	0	0	0	0	0	0
1935	0	0	0	0	0	0	0	0	0	0	0	0
1936	0	0	0	0	0	0	0	0	0	0	0	0
1937	0	0	0	0	0	0	0	0	0	0	0	0
1938	0	0	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	0	0	0	0	0	0	0	0	0
1941	0	0	0	0	0	0	0	0	0	0	0	0
1942	0	0	0	0	0	0	0	0	0	0	0	0
1943	0	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	0	0	0	0	0	0	0	0	0
1945	0	0	0	0	0	0	0	0	0	0	0	0
1946	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	0	0	0	0	0	0	0	0	0	0
1948	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
AVG.	0	0	0	0	0	0	0	0	0	0	0	0

TABLE B-8 Outflow from Englebright Reservoir
YCWA's PROPOSED INSTREAM FLOWS
Study: a) present level demand; b) current PG&E practice; c) YCWA proposed minimum flows; d) YRI
(CFS)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	907	699	601	630	2394	2102	3784	9960	9611	2863	1759	921
1923	722	650	3107	2008	1248	737	3103	3604	2463	2486	1712	1016
1924	719	718	672	662	886	689	619	1148	934	1042	893	399
1925	498	577	644	638	5175	1563	2495	2805	1683	1761	1648	921
1926	672	690	667	644	4489	1439	2890	2406	1687	1215	1043	525
1927	638	2209	2239	2670	10142	4017	5549	5818	5150	2419	1617	954
1928	718	1243	1573	2151	1822	8450	3834	3289	1665	1595	1584	920
1929	719	669	664	697	667	845	708	1441	1236	1205	1044	525
1930	615	617	2049	2138	2509	2604	1658	2387	1679	1213	1043	661
1931	674	667	707	643	664	767	620	1145	942	1042	891	398
1932	542	578	673	685	1439	2185	2234	4230	3958	2252	1689	858
1933	676	710	679	660	688	788	928	1230	1222	1225	1330	871
1934	587	615	626	1456	1699	1257	633	1147	952	1044	891	399
1935	564	540	572	718	1714	1238	6649	4830	3247	2201	1660	891
1936	717	711	687	3160	6844	2767	3992	4147	2698	2305	1671	949
1937	724	719	674	675	1753	1462	2910	4667	2094	2160	1625	857
1938	714	772	5036	1664	5115	7816	5750	10280	7913	2917	1818	980
1939	717	720	708	656	657	1131	695	1405	1242	1193	1046	525
1940	614	617	606	2195	7515	7448	4060	3871	1687	1823	1647	951
1941	710	675	2637	4628	6571	3961	3410	6715	3170	2962	1809	1055
1942	719	683	3896	5967	6868	1838	4860	5559	6012	2789	1847	971
1943	719	1356	3210	7051	3948	6795	4240	3187	2108	2347	1799	989
1944	724	714	672	652	1280	1163	770	2389	1687	1683	1662	908
1945	661	846	1668	1112	6020	1200	1652	3572	2024	2241	1737	950
1946	708	1070	6101	3038	1600	1830	2804	3627	1683	2081	1710	916
1947	724	655	1125	722	1893	2426	875	1388	1247	1238	1046	822
1948	624	609	619	2147	586	1092	3798	4057	4015	2373	1775	936
1949	741	709	733	667	748	1482	2367	2468	1688	1322	1625	930
1950	674	692	714	1598	4108	2332	3615	3996	2698	2290	1719	937
1951	700	8196	10246	5220	4761	2207	2932	3442	1684	1933	1685	912
1952	692	1049	3855	3791	6341	3076	6899	11700	8734	4099	2044	1096
1953	726	703	865	6882	1674	1597	3006	3320	5873	2941	1861	978
1954	724	652	672	1678	2959	3498	3891	2500	1679	1222	1451	913
1955	718	670	688	1156	822	665	591	1781	1630	2135	1654	900
1956	618	565	14175	9829	4051	2194	1989	6237	4448	2587	1884	1048
1957	689	710	711	623	3622	3441	841	4037	2472	2266	1745	984
1958	705	703	1423	2231	9298	4028	5917	8970	6263	2622	1896	1281
1959	729	706	699	1216	2676	971	635	1372	1233	1238	1053	525
1960	613	617	598	676	3966	3783	1239	2380	1654	1222	1055	667
1961	671	647	687	703	1130	949	565	1120	935	1964	1634	884
1962	571	587	548	552	5385	1537	3257	2380	1945	2214	1745	975
1963	4891	1030	2888	2949	7906	1390	5292	6651	2387	2477	1895	1092
1964	714	2137	885	1676	1210	656	852	2435	1684	1217	1280	952
1965	674	674	17333	9072	3128	1230	4192	4366	3498	2575	1997	1104
1966	719	630	924	1560	1100	1498	2393	2384	1686	1227	1050	527
1967	674	771	3261	4822	3172	3813	2133	6736	8753	3643	2009	1055
1968	721	686	646	1316	5323	1837	818	2363	1659	1235	1055	521
1969	640	669	834	12227	5018	2192	4435	8800	5537	2597	1825	1005
1970	724	702	3702	16655	3620	2516	857	2396	1644	1209	1041	694
1971	724	1860	3874	3452	2412	3746	2453	5465	5223	3054	1995	1181
1972	725	703	990	1713	2307	2975	1541	2522	1679	1321	1803	1128
1973	638	1391	2442	6116	4638	2667	1903	4455	1672	2110	1761	1139
1974	700	6229	4779	8797	2480	7926	4790	4978	3929	2918	1951	1044
1975	723	695	658	631	3617	4057	1682	5412	6217	2835	1999	1205
1976	884	1036	701	692	633	658	624	1136	926	1029	877	388
1977	564	605	610	585	578	594	629	1134	927	1031	888	394
1978	566	590	665	2601	1615	5418	3503	3848	4169	2608	1890	1295
1979	721	673	680	764	2142	2557	1388	3819	1679	2041	1742	992
1980	635	882	1394	12101	8593	2982	1897	3210	2910	2586	1820	997
1981	722	714	684	841	1509	1471	642	1404	1232	1229	1041	534
1982	568	6851	10847	4869	9259	4902	10735	7854	4040	2763	1903	1521
1983	755	2222	4617	3952	8305	11314	3887	7762	10495	5039	2199	1280
1984	695	6405	10830	3874	3164	2785	1058	3116	1963	2338	1795	1087
1985	692	1798	1134	788	1444	851	1418	2389	1683	1233	1043	514
1986	634	628	636	2812	20278	9061	1904	2419	1678	2151	1737	1278
1987	721	724	717	654	875	1263	636	1138	937	1039	888	396
1988	573	600	613	1879	984	590	585	1133	927	1039	887	396
1989	566	715	557	1016	1501	9695	3231	2419	1658	1225	1415	1070
1990	904	689	707	1220	1073	1445	769	1274	1210	1201	1605	979
1991	607	592	603	601	576	1564	541	1097	923	2066	1700	927
1992	560	592	603	601	575	1563	541	1097	923	2102	1700	927
AVG.	740	1170	2247	2785	3476	2769	2544	3679	2828	2012	1547	883

TABLE B-9 Flow in Yuba River at Smartville
YCWA's PROPOSED INSTREAM FLOWS
Study: a) present level demand; b) current PG&E practice; c) YCWA proposed minimum flows; d) YRI
(CFS)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	920	724	719	719	2718	2431	4222	10337	9680	2880	1781	939
1923	732	722	3338	2143	1348	828	3316	3633	2486	2506	1733	1016
1924	719	731	719	719	1010	729	625	1148	935	1042	893	399
1925	534	615	744	719	5657	1731	2619	2834	1700	1781	1651	921
1926	673	722	719	719	4820	1567	3101	2418	1704	1225	1043	525
1927	656	2452	2379	2844	10976	4461	5829	5896	5182	2437	1638	972
1928	728	1364	1681	2271	1967	9078	3974	3316	1686	1615	1604	920
1929	720	722	719	725	742	961	798	1453	1251	1205	1044	525
1930	615	617	2271	2279	2697	2824	1746	2405	1696	1233	1043	661
1931	675	722	717	719	719	865	631	1146	942	1042	891	398
1932	555	615	793	781	1606	2402	2470	4376	3979	2272	1709	858
1933	677	720	719	719	719	904	1049	1312	1238	1225	1330	871
1934	602	618	739	1552	1822	1358	640	1160	956	1044	891	399
1935	566	617	617	822	1841	1408	7166	4938	3269	2221	1681	891
1936	719	719	715	3560	7606	2942	4122	4174	2716	2326	1692	950
1937	725	719	715	724	2272	1882	3214	4744	2113	2181	1646	857
1938	722	960	5533	1783	6248	8898	6125	10396	7930	2936	1839	997
1939	720	724	716	719	719	1278	706	1417	1243	1193	1046	525
1940	615	617	611	2558	8016	7997	4262	3885	1709	1844	1668	951
1941	719	722	2867	5043	7108	4388	3764	6836	3189	2981	1828	1073
1942	719	728	4182	6288	7492	2065	5276	5780	6028	2810	1866	989
1943	721	1470	3358	7544	4232	7505	4408	3214	2124	2366	1818	1007
1944	725	719	719	719	1492	1359	864	2400	1703	1684	1662	908
1945	666	980	1737	1148	6440	1363	1741	3594	2046	2262	1757	950
1946	726	1174	6511	3199	1714	1999	2904	3640	1706	2101	1731	916
1947	725	742	1186	729	1998	2601	920	1402	1263	1238	1046	822
1948	659	617	623	2256	617	1239	4085	4144	4034	2376	1776	936
1949	741	719	907	719	880	1847	2507	2486	1706	1342	1626	930
1950	674	722	746	1884	4465	2537	3765	4026	2722	2310	1740	937
1951	727	8681	10794	5793	5112	2530	3015	3542	1706	1953	1706	912
1952	726	1158	4145	4368	7109	3684	7352	11922	8766	4121	2065	1115
1953	726	725	1031	7248	1727	1786	3159	3395	5890	2962	1882	982
1954	725	722	719	1889	3183	3742	4067	2517	1696	1243	1452	913
1955	720	722	803	1257	906	719	652	1850	1646	2136	1655	900
1956	618	620	15265	10872	4510	2423	2075	6325	4465	2607	1905	1066
1957	721	728	719	719	3850	3651	931	4235	2486	2287	1749	984
1958	721	728	1572	2418	9866	4582	6684	9050	6280	2642	1917	1289
1959	729	727	723	1382	2947	1055	658	1385	1250	1238	1053	525
1960	613	617	612	806	4341	3993	1295	2398	1671	1243	1056	667
1961	672	720	719	729	1237	1071	604	1131	952	1964	1634	884
1962	571	615	617	617	5984	1786	3336	2398	1968	2234	1766	975
1963	5302	1063	3002	3111	8256	1664	5897	6802	2402	2497	1916	1110
1964	729	2306	917	1811	1274	735	897	2446	1700	1221	1280	952
1965	674	766	18077	9849	3312	1351	4532	4409	3516	2594	2016	1122
1966	719	719	1009	1687	1194	1599	2458	2395	1703	1227	1050	527
1967	674	920	3489	5295	3329	4229	2557	6946	8790	3659	2029	1074
1968	732	738	719	1461	5622	1990	877	2380	1676	1253	1075	522
1969	659	749	1004	13203	5805	2548	4788	8921	5552	2616	1845	1024
1970	734	732	3952	17408	3946	2853	925	2411	1663	1227	1061	709
1971	725	1996	4172	3680	2523	4033	2598	5513	5240	3075	2014	1198
1972	726	722	1134	1786	2452	3057	1617	2534	1696	1326	1803	1128
1973	658	1552	2581	6663	5288	3123	2024	4474	1691	2129	1781	1149
1974	722	6620	5116	9328	2734	8723	5193	5022	3953	2934	1970	1061
1975	733	725	722	719	4021	4421	1889	5509	6232	2850	2017	1221
1976	954	1130	720	729	719	719	633	1149	941	1031	877	388
1977	564	617	614	617	617	616	629	1134	928	1031	888	394
1978	566	614	804	3253	1803	5862	3870	3924	4188	2627	1910	1310
1979	722	722	719	904	2436	2813	1483	3862	1696	2061	1746	992
1980	659	934	1531	12610	9208	3359	2001	3233	2930	2604	1840	1014
1981	733	722	716	966	1576	1626	666	1417	1250	1229	1041	534
1982	592	7172	11311	5298	9906	5515	11654	7951	4056	2782	1923	1537
1983	813	2429	4896	4616	9268	12562	4325	7990	10511	5057	2218	1298
1984	727	6751	11468	4134	3494	3058	1163	3153	1981	2357	1814	1100
1985	722	1978	1192	821	1607	1000	1484	2401	1700	1235	1043	514
1986	655	722	719	2964	21639	9766	1996	2449	1698	2170	1757	1293
1987	736	727	727	719	1004	1407	643	1151	939	1039	888	396
1988	573	617	725	2029	1037	617	628	1145	928	1039	887	396
1989	566	859	623	1096	1586	10295	3326	2437	1681	1244	1434	1070
1990	972	732	721	1358	1191	1568	786	1342	1224	1202	1606	979
1991	607	617	611	616	617	1949	621	1118	938	2084	1700	927
1992	561	620	612	616	617	1949	621	1118	938	2121	1700	927
AVG.	757	1248	2399	3015	3786	3063	2725	3738	2846	2026	1558	889

TABLE B-10 Required Carryover Storage at New Bullards Bar
YCWA's PROPOSED INSTREAM FLOWS
Study: a) present level demand; b) current PG&E practice; c) YCWA proposed minimum flows; d) YRI

Year	Ac-ft
1922	592000
1923	592000
1924	451000
1925	592000
1926	592000
1927	592000
1928	592000
1929	592000
1930	592000
1931	425000
1932	592000
1933	592000
1934	311000
1935	592000
1936	592000
1937	592000
1938	592000
1939	592000
1940	592000
1941	592000
1942	592000
1943	592000
1944	592000
1945	592000
1946	592000
1947	592000
1948	592000
1949	592000
1950	592000
1951	592000
1952	592000
1953	592000
1954	592000
1955	592000
1956	592000
1957	592000
1958	592000
1959	592000
1960	592000
1961	592000
1962	592000
1963	592000
1964	592000
1965	592000
1966	592000
1967	592000
1968	592000
1969	592000
1970	592000
1971	592000
1972	592000
1973	592000
1974	592000
1975	592000
1976	579000
1977	311000
1978	592000
1979	592000
1980	592000
1981	592000
1982	592000
1983	592000
1984	592000
1985	592000
1986	592000
1987	592000
1988	311000
1989	592000
1990	592000
1991	592000
1992	592000
AVG.	575606

TABLE C-1 Total Outflow from New Bullards Bar Reservoir
SWRCB INSTREAM FLOWS
Study: a) present level demand; b) current PG&E practice; c) SWRCB minimum flows; d) Modified YRI
(CFS)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	700	546	311	287	1235	1226	2544	6796	6061	2766	1712	889
1923	582	413	2107	1412	820	267	2215	2668	2082	2415	1669	954
1924	554	526	415	449	283	517	639	1183	1210	1065	926	464
1925	396	468	270	266	1970	940	1889	2405	1611	1422	1617	886
1926	596	502	444	396	2685	762	2041	2767	1631	1193	1033	505
1927	557	733	1690	1994	7032	2886	4038	3347	3695	2375	1595	918
1928	595	825	1164	1611	1247	5755	2682	1754	1587	1529	1577	892
1929	605	472	457	513	284	255	338	2015	1515	1144	1000	499
1930	561	611	259	1014	1689	1626	1154	2719	1599	1191	1024	486
1931	646	400	609	345	336	257	615	1196	1229	1111	961	483
1932	474	501	271	266	287	254	1181	3255	2931	2201	1654	843
1933	614	558	542	479	495	258	262	1748	1472	1204	1029	509
1934	493	542	259	256	699	687	743	1301	1307	1200	1039	508
1935	553	400	465	261	285	253	3986	3581	2662	2153	1627	868
1936	584	585	613	1677	4032	2197	3421	2742	2136	2272	1648	914
1937	616	597	589	533	286	254	2061	3576	1949	2133	1606	847
1938	576	337	3496	1328	2888	5471	4677	6487	5051	2809	1786	935
1939	569	595	630	428	305	254	602	1959	1289	822	764	406
1940	453	610	651	314	5266	5358	2928	2190	1638	1784	1624	919
1941	586	480	1943	3157	4786	2836	2523	4500	2511	2881	1755	1000
1942	593	469	2864	4494	4745	1240	3607	3773	3995	2715	1775	910
1943	611	1036	2540	4960	2931	4758	2871	1756	1881	2271	1722	937
1944	606	600	540	414	283	253	451	2561	1577	1195	1536	875
1945	602	354	1332	921	3995	507	1140	2665	1881	2217	1674	910
1946	570	718	4124	2252	1099	1079	2235	2494	1610	2023	1691	893
1947	621	331	771	650	1273	1360	501	2312	1553	1171	1019	491
1948	471	596	662	276	555	253	1926	3150	3124	2325	1756	918
1949	625	593	256	454	284	254	1568	2675	1661	1184	1192	892
1950	629	502	581	465	2515	1405	2733	2738	2245	2234	1699	907
1951	559	5554	6926	3698	3668	1442	1752	1888	1636	1856	1671	893
1952	538	744	2868	2044	4443	1686	5390	7341	5337	3708	2030	1066
1953	634	532	256	4806	1373	784	2305	2554	3847	2901	1847	950
1954	619	405	470	884	2012	2325	3058	2515	1596	1207	1040	763
1955	514	456	255	668	404	336	733	1666	1522	1282	1641	883
1956	576	460	9580	6990	3003	1646	1670	3854	3042	2498	1865	1016
1957	515	494	637	335	2440	2262	466	2762	1966	2236	1725	946
1958	570	524	1064	1590	6877	2470	3905	5998	3892	2576	1877	1251
1959	634	513	577	635	1476	595	707	2224	1509	1129	1002	461
1960	542	597	611	265	346	2738	904	2666	1568	1207	1041	514
1961	605	430	461	519	283	253	593	1674	1551	1205	1041	518
1962	579	554	455	397	2330	698	2618	2613	1560	1759	1708	950
1963	3344	816	2373	2321	5981	760	3602	3988	1994	2380	1847	1066
1964	573	1417	682	919	822	253	496	2637	1539	1121	1021	586
1965	619	380	11836	6470	2536	936	2993	2609	2501	2493	1931	1062
1966	624	357	477	916	635	941	1848	2663	1604	1170	996	498
1967	658	266	1893	3104	2483	2670	1149	5066	5460	3298	1920	1011
1968	576	458	446	751	3945	1215	583	2627	1616	1082	1017	455
1969	560	433	257	8056	3308	1355	3341	5111	3574	2489	1739	964
1970	616	522	2830	12069	2760	1702	684	2504	1537	1109	987	489
1971	610	1018	2454	2308	1832	2392	1819	4206	3103	2951	1905	1147
1972	624	557	295	1213	1383	2138	948	2636	1522	1100	1336	1051
1973	555	920	1967	4290	3117	1634	1520	3053	1586	2011	1714	1077
1974	552	4676	3428	6826	1883	5693	3569	3230	2892	2778	1851	971
1975	610	512	499	341	2177	2584	972	4128	4225	2671	1851	1046
1976	587	580	639	498	306	382	665	1154	1085	955	823	376
1977	497	524	610	545	512	561	611	814	776	636	615	320
1978	429	554	287	270	284	3942	2587	2720	2720	2540	1838	1213
1979	594	495	533	269	1070	1517	947	2897	1603	1958	1694	958
1980	553	628	913	8849	6196	1944	1482	1812	2091	2487	1754	898
1981	480	567	597	255	1139	626	667	2240	1489	1071	951	485
1982	473	3373	7899	3586	6884	3286	7225	4642	2753	2663	1835	1404
1983	573	1685	3575	2401	6156	8210	2889	5197	6045	3855	2126	1209
1984	444	4174	7813	3145	2330	2057	612	1583	1634	2261	1746	1024
1985	508	1196	866	620	773	253	848	2732	1608	1143	982	410
1986	493	404	353	1701	13552	6192	1032	1381	1437	1627	1688	1211
1987	466	602	644	504	282	594	775	1606	1323	860	771	401
1988	507	558	260	257	465	470	642	1216	1216	1119	1007	498
1989	562	271	350	317	307	6456	2644	2416	1549	1143	975	852
1990	549	477	583	762	545	891	802	2052	1387	1118	959	443
1991	541	519	659	626	595	259	531	1697	1478	1092	995	490
1992	541	519	659	626	595	260	361	1082	1171	1090	995	490
AVG.	603	797	1573	1824	2227	1730	1838	2842	2229	1843	1437	800

TABLE C-2 New Bullards Bar Reservoir End-of-month Storage
SWRCB INSTREAM FLOWS
Study: a) present level demand; b) current PG&E practice; c) SWRCB minimum flows; d) Modified YRI
(AF)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	549619	531770	570718	619640	720000	790000	890000	966000	950000	840000	750000	705000
1923	679238	680830	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1924	682726	660075	658958	648338	694859	694275	718828	677055	609306	545333	488890	466386
1925	456173	454387	499658	540981	720000	790000	890000	948814	911349	840000	750000	705000
1926	677580	664064	664544	671011	720000	790000	890000	817014	754023	688631	630332	606419
1927	584894	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1928	677318	705000	705000	705000	720000	790000	890000	966000	917246	840000	750000	705000
1929	674697	661480	654707	642551	667356	720111	794784	785341	744632	682730	625534	600974
1930	571511	540633	673558	705000	720000	790000	890000	858815	813359	754841	700686	680889
1931	641713	637382	605753	610399	619683	675338	695788	655647	594111	527164	470637	446608
1932	428422	416472	493119	560851	656849	785536	890000	966000	950000	840000	750000	705000
1933	672571	647013	623955	611380	601676	659996	751890	779258	795130	734230	676040	651792
1934	629391	607876	637982	684718	720000	790000	819176	776575	713961	644446	583884	558565
1935	531346	539993	546108	613591	678469	769144	890000	966000	950000	840000	750000	705000
1936	680862	663239	649272	705000	720000	790000	890000	966000	950000	840000	750000	705000
1937	674328	647056	623937	603248	665650	773156	890000	966000	950000	840000	750000	705000
1938	676930	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1939	684484	672034	661076	660598	665572	751125	848104	779762	717207	670402	623944	602197
1940	583801	557625	534533	705000	720000	790000	890000	966000	933740	840000	750000	705000
1941	679801	683414	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1942	683236	688514	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1943	676934	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1944	679540	657635	642934	649102	685315	770707	864376	911146	889477	834418	750000	705000
1945	677159	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1946	687357	705000	705000	705000	720000	790000	890000	966000	941020	840000	750000	705000
1947	677632	705000	705000	692886	720000	790000	889917	821124	769491	709368	656101	634273
1948	635985	626133	606958	705000	709792	738057	890000	966000	950000	840000	750000	705000
1949	676340	662111	667011	658047	664820	751234	890000	919380	873182	814106	750000	705000
1950	672470	656102	633040	705000	720000	790000	890000	966000	950000	840000	750000	705000
1951	701979	705000	705000	705000	720000	790000	890000	966000	930666	840000	750000	705000
1952	698047	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1953	676610	659823	693659	705000	720000	790000	890000	966000	950000	840000	750000	705000
1954	682449	690939	694112	705000	720000	790000	890000	900786	851646	796012	742122	705000
1955	677282	669357	702915	705000	720000	768980	834177	916472	898110	840000	750000	705000
1956	677509	669821	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1957	696818	689177	675876	685044	720000	790000	890000	966000	950000	840000	750000	705000
1958	693746	694852	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1959	674596	658703	638652	705000	720000	790000	856713	792308	729023	671099	618558	602552
1960	576756	546532	516034	542642	720000	790000	890000	845872	808997	754992	704054	680903
1961	649166	647864	655359	639391	705175	774040	849917	862095	818417	758280	704018	680100
1962	654336	631849	644942	645823	720000	790000	890000	914978	925086	840000	750000	705000
1963	705000	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1964	687173	705000	705000	705000	720000	770856	867224	851594	826285	777691	729555	705000
1965	694613	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1966	681231	703162	705000	705000	720000	790000	890000	861561	794719	736218	683434	662438
1967	630378	672518	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1968	687546	673517	685489	705000	720000	790000	870591	815003	760941	705628	653803	627892
1969	606670	625414	673187	705000	720000	790000	890000	966000	950000	840000	750000	705000
1970	688989	678440	705000	705000	720000	790000	847517	823286	796394	751881	704286	682837
1971	667373	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1972	688775	683193	705000	705000	720000	790000	890000	890025	862690	814211	750000	705000
1973	699429	705000	705000	705000	720000	790000	890000	966000	940154	840000	750000	705000
1974	700719	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1975	685546	677884	673593	696103	720000	790000	890000	966000	950000	840000	750000	705000
1976	705000	705000	703311	696054	715745	759026	779136	765315	712626	658008	613888	596632
1977	572588	548809	518617	497490	481509	463131	445333	428487	392285	354944	319561	303490
1978	281336	261693	338656	612114	716841	790000	890000	966000	950000	840000	750000	705000
1979	681139	670327	654759	705000	720000	790000	890000	966000	939191	840000	750000	705000
1980	700381	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1981	683615	664295	666127	694228	720000	790000	865089	808074	743444	687180	633804	611524
1982	608854	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1983	705000	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1984	704791	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1985	690736	705000	705000	705000	720000	782914	890000	827395	764659	707508	656254	643225
1986	621437	627828	663671	705000	720000	790000	890000	939003	915448	840000	750000	705000
1987	693275	673774	652210	652289	718164	790000	826001	775355	710763	666259	624547	606001
1988	582156	559506	625478	689911	720000	751866	782556	761316	714047	656770	599127	574082
1989	544497	602681	610316	635739	698913	790000	890000	875126	840221	786876	740803	705000
1990	705000	700745	686762	705000	720000	790000	851992	789886	779069	725016	680135	662610
1991	632692	618314	583527	558668	542821	679181	780732	794709	763097	713673	664860	644130
1992	614245	599881	565098	540242	523856	660155	771837	823616	810200	760771	711835	691006
AVG.	649486	650165	656552	674128	702156	771674	862277	894848	865569	782094	707615	671162

TABLE C-3 Total Energy Production at New Bullards Bar Reservoir
SWRCB INSTREAM FLOWS
Study: a) present level demand; b) current PG&E practice; c) SWRCB minimum flows; d) Modified YRI
(MWH)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	49367	36937	21831	20418	80620	89870	183252	269514	260820	208413	126084	62857
1923	42280	28930	153097	102832	53991	19587	159542	202019	153188	181961	122916	67451
1924	40278	36818	29940	32360	19161	37580	45051	86060	84131	75326	64301	30819
1925	27042	30893	18500	18500	127503	68891	136021	181862	118086	106663	119086	62645
1926	43288	35099	32065	28631	176314	55866	147027	206534	116126	87091	74495	34913
1927	39589	50989	123034	145212	236581	211218	258983	248057	260820	178947	117465	64907
1928	43234	57988	84732	117323	85011	263415	193145	132801	116475	114829	116139	63069
1929	43923	32980	32959	36930	18500	18500	23976	148362	107605	83402	72054	34462
1930	39780	41584	18500	73612	111201	119190	83148	203980	115043	87610	74809	34156
1931	46618	27770	43530	24619	21690	18500	43144	86589	85136	78182	66426	31897
1932	32138	32742	18500	18500	19161	18500	85052	242219	214950	165834	121811	59606
1933	44538	38958	38893	34248	31887	18500	18500	128294	104870	88316	74921	35546
1934	35400	37467	18500	18500	45958	50369	53059	95918	92588	86897	74183	34670
1935	38749	27063	32559	18500	18500	18500	258348	263641	195837	162217	119822	61373
1936	42402	40918	44190	121408	245031	160983	240317	207603	157161	171184	121369	64624
1937	44720	41674	42266	38072	18500	18500	148170	263282	143402	160709	118275	59889
1938	41802	23721	247260	96716	189866	263415	258983	269514	260820	211653	131536	66108
1939	41330	41675	45518	30896	19900	18500	42981	144906	91342	59770	54946	28017
1940	32181	41687	45621	22445	245031	263415	210214	165806	120372	134163	119601	64977
1941	42562	33639	141235	226851	236581	207883	181719	269514	184753	216826	129297	70702
1942	43092	32898	208170	261667	236581	90874	252468	269514	260820	204569	130770	64341
1943	44339	72784	184923	261667	192341	263415	206603	132927	138399	171109	126866	66250
1944	44031	41936	38877	29789	19161	18500	32316	192719	115140	89389	113103	61868
1945	43712	24905	96965	67079	236581	37177	82093	201789	138399	167040	123285	64341
1946	41434	50498	261667	163992	72358	79079	161000	188811	118370	152273	124537	63140
1947	45116	23286	56115	47307	83744	99706	36112	172703	110694	85649	73864	34147
1948	33779	41374	47304	19867	37835	18500	137923	235543	227243	175179	129325	64907
1949	45402	41452	18500	32785	18500	18500	112400	201877	121203	88192	87661	63069
1950	45673	35049	41775	33618	165567	102983	196810	207328	165181	168321	125172	64129
1951	40686	253175	261667	261538	234565	105700	126208	142965	120196	139595	123064	63140
1952	39147	52422	208697	148853	245031	123592	258983	269514	260820	269514	149511	75367
1953	46028	37177	18500	261453	90397	57478	166048	193341	260820	218154	136029	67168
1954	44964	28410	34153	64333	132428	170379	218358	189580	115867	89471	76383	53906
1955	37321	31898	18500	48656	26603	24611	52358	124985	111165	96081	120854	62433
1956	41847	32182	260753	261667	203456	120608	120268	269514	222091	188216	137355	71833
1957	37470	34707	46185	24291	160421	165798	33592	209108	144653	168472	127087	66886
1958	41463	36827	77398	115794	236581	181007	258983	269514	260820	194094	138239	88441
1959	46002	35836	41525	45939	97178	43626	50700	164970	107087	82156	72033	31841
1960	38493	40696	42596	18500	23223	200670	65134	199680	112592	88741	76039	36160
1961	43688	29914	33200	37351	18500	18500	42420	125077	111695	88700	76055	36430
1962	41816	38508	32676	28562	152591	51175	188534	197165	114151	132167	125789	67168
1963	238198	57507	172771	168983	236581	55719	252111	269514	146713	179323	136029	75367
1964	41651	99674	49634	66933	56031	18500	35539	197130	110822	82693	74842	41369
1965	45024	26729	261667	261667	166984	68599	214288	197535	184003	187839	142217	75084
1966	45309	25073	34710	66715	41811	68982	133089	199790	115237	85899	72554	34848
1967	47307	18500	137421	223536	163468	195663	82788	269514	260820	243784	141407	71469
1968	41865	32124	32317	54588	245031	89035	41919	195621	115083	79081	73648	31595
1969	40042	29942	18500	260852	213411	99283	235539	269514	255748	187538	128073	68158
1970	44817	36602	205604	261667	181676	124735	49041	186159	109971	81450	72059	34364
1971	44151	71471	178690	168068	120612	175312	130977	269514	225923	221463	140347	81091
1972	45361	39113	21442	88341	94284	156665	68254	198414	110537	81824	98231	74307
1973	40425	64841	143221	261667	202824	119771	109491	229242	116646	151364	126231	76144
1974	40210	253154	243235	261667	123953	263415	249845	240660	212419	209317	136324	68653
1975	44368	35920	36091	24750	143271	189418	69982	269514	260820	201253	136369	73953
1976	42721	40876	46532	36254	20864	27935	47228	84752	76831	69270	59082	25956
1977	35218	35694	42557	37740	31864	38454	40301	55183	50494	42218	40239	20015
1978	27571	34148	18500	18500	18500	263360	186297	205919	200142	191381	135366	85756
1979	43165	34682	38477	19508	70449	111198	68218	218959	117834	147370	124758	67734
1980	40245	44274	66455	261667	245031	142446	106748	137184	153850	187387	129178	63493
1981	34869	39710	43121	18500	74946	45888	47870	166587	105875	78114	68588	33588
1982	33736	229810	261667	253597	236581	236275	258983	269514	202579	200651	135145	99255
1983	41701	118745	252855	174848	236581	263415	207749	269514	260820	269514	156583	85473
1984	32337	253223	261667	226066	158872	150772	44088	119882	120225	170356	128589	72398
1985	36939	84217	63032	45160	50896	18500	61039	204170	114664	83553	71190	28536
1986	35355	27955	25391	123350	236581	263415	74352	104339	105276	122161	124316	85614
1987	33869	42245	46457	36311	18500	43559	55407	118460	93717	62449	55421	27694
1988	36000	38120	18500	18500	31709	34339	45600	89351	86086	81187	72107	34148
1989	39565	18500	24961	22698	20049	263046	190463	181543	112002	84534	71569	60177
1990	39954	33576	42374	55374	35886	65310	57512	152065	98755	81887	69775	30968
1991	38912	35928	46926	44203	37722	18500	37523	124925	105136	79864	72244	34162
1992	38753	35781	46678	43964	38849	18500	25459	79778	83881	80203	72755	34511
AVG.	43470	52023	86540	99535	116035	106522	123911	190836	149772	137211	105321	56275

TABLE C-4 Total Delivery at Daguerre Point Dam
SWRCB INSTREAM FLOWS
Study: a) present level demand; b) current PG&E practice; c) SWRCB minimum flows; d) Modified YRI
(AF)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
1922	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1923	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1924	16727	9191	4586	352	352	2648	13806	45125	41651	48910	41058	13443	237848
1925	14218	7812	3898	299	299	2251	16242	53088	49001	57541	48304	15815	268769
1926	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1927	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1928	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1929	16727	9191	4586	352	352	2648	15430	50434	46551	54664	45889	15024	261847
1930	15891	8731	4357	334	334	2516	16242	53088	49001	57541	48304	15815	272154
1931	16727	9191	4586	352	352	2648	14618	47779	44101	51787	43474	14234	249848
1932	15054	8272	4127	317	317	2383	16242	53088	49001	57541	48304	15815	270461
1933	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1934	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1935	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1936	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1937	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1938	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1939	16727	9191	4586	352	352	2648	10557	34507	31851	37402	31398	10280	189850
1940	10873	5974	2981	229	229	1721	16242	53088	49001	57541	48304	15815	261997
1941	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1942	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1943	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1944	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1945	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1946	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1947	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1948	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1949	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1950	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1951	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1952	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1953	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1954	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1955	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1956	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1957	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1958	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1959	16727	9191	4586	352	352	2648	15430	50434	46551	54664	45889	15024	261847
1960	15891	8731	4357	334	334	2516	16242	53088	49001	57541	48304	15815	272154
1961	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1962	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1963	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1964	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1965	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1966	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1967	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1968	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1969	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1970	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1971	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1972	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1973	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1974	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1975	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1976	16727	9191	4586	352	352	2648	14618	47779	44101	51787	43474	14234	249848
1977	15054	8272	4127	317	317	2383	8121	26544	24501	28771	24152	7908	150466
1978	8364	4596	2293	176	176	1324	16242	53088	49001	57541	48304	15815	256919
1979	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1980	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1981	16727	9191	4586	352	352	2648	15430	50434	46551	54664	45889	15024	261847
1982	15891	8731	4357	334	334	2516	16242	53088	49001	57541	48304	15815	272154
1983	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1984	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1985	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1986	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1987	16727	9191	4586	352	352	2648	11369	37162	34301	40279	33813	11071	201850
1988	11709	6434	3210	246	246	1854	16242	53088	49001	57541	48304	15815	263690
1989	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1990	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1991	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1992	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
AVG.	16338	8977	4479	344	344	2586	15865	51854	47862	56204	47181	15447	267483

TABLE C-5 Total Deliveries and Deficiencies at Daguerre Point Diversion Dam
SWRCB INSTREAM FLOWS
Study: a) present level demand; b) current PG&E practice; c) SWRCB minimum flows; d) Modified YRI

Water Year	Year Type (YRI)[1]	Total Annual Delivery (ac-ft)	Total Annual Demand (ac-ft)	Deficiency, Percent of Demand	Deficiency, Volume (ac-ft)
1922	W	273847	273847	0.0%	0
1923	AN	273847	273847	0.0%	0
1924	EC	237848	273847	13.1%	35999
1925	BN	268769	273847	1.9%	5078
1926	BN	273847	273847	0.0%	0
1927	W	273847	273847	0.0%	0
1928	AN	273847	273847	0.0%	0
1929	D	261847	273847	4.4%	12000
1930	BN	272154	273847	0.6%	1693
1931	EC	249848	273847	8.8%	23999
1932	BN	270461	273847	1.2%	3386
1933	D	273847	273847	0.0%	0
1934	EC	273847	273847	0.0%	0
1935	AN	273847	273847	0.0%	0
1936	AN	273847	273847	0.0%	0
1937	AN	273847	273847	0.0%	0
1938	W	273847	273847	0.0%	0
1939	D	189850	273847	30.7%	83997
1940	AN	261997	273847	4.3%	11850
1941	W	273847	273847	0.0%	0
1942	W	273847	273847	0.0%	0
1943	W	273847	273847	0.0%	0
1944	BN	273847	273847	0.0%	0
1945	AN	273847	273847	0.0%	0
1946	AN	273847	273847	0.0%	0
1947	D	273847	273847	0.0%	0
1948	AN	273847	273847	0.0%	0
1949	BN	273847	273847	0.0%	0
1950	AN	273847	273847	0.0%	0
1951	W	273847	273847	0.0%	0
1952	W	273847	273847	0.0%	0
1953	W	273847	273847	0.0%	0
1954	AN	273847	273847	0.0%	0
1955	D	273847	273847	0.0%	0
1956	W	273847	273847	0.0%	0
1957	AN	273847	273847	0.0%	0
1958	W	273847	273847	0.0%	0
1959	D	261847	273847	4.4%	12000
1960	BN	272154	273847	0.6%	1693
1961	C	273847	273847	0.0%	0
1962	BN	273847	273847	0.0%	0
1963	W	273847	273847	0.0%	0
1964	BN	273847	273847	0.0%	0
1965	W	273847	273847	0.0%	0
1966	BN	273847	273847	0.0%	0
1967	W	273847	273847	0.0%	0
1968	BN	273847	273847	0.0%	0
1969	W	273847	273847	0.0%	0
1970	W	273847	273847	0.0%	0
1971	W	273847	273847	0.0%	0
1972	BN	273847	273847	0.0%	0
1973	AN	273847	273847	0.0%	0
1974	W	273847	273847	0.0%	0
1975	W	273847	273847	0.0%	0
1976	EC	249848	273847	8.8%	23999
1977	EC	150466	273847	45.1%	123381
1978	AN	256919	273847	6.2%	16928
1979	BN	273847	273847	0.0%	0
1980	W	273847	273847	0.0%	0
1981	D	261847	273847	4.4%	12000
1982	W	272154	273847	0.6%	1693
1983	W	273847	273847	0.0%	0
1984	W	273847	273847	0.0%	0
1985	BN	273847	273847	0.0%	0
1986	W	273847	273847	0.0%	0
1987	C	201850	273847	26.3%	71997
1988	EC	263690	273847	3.7%	10157
1989	BN	273847	273847	0.0%	0
1990	D	273847	273847	0.0%	0
1991	C	273847	273847	0.0%	0
1992	EC	273847	273847	0.0%	0
AVG.		267483	273847	2.3%	6364

TABLE C-6 Flow in Yuba River at Marysville
SWRCB INSTREAM FLOWS
Study: a) present level demand; b) current PG&E practice; c) SWRCB minimum flows; d) Modified YRI
(CFS)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	655	587	748	775	2915	2552	4184	9677	8936	1967	1003	676
1923	467	632	3434	2231	1412	860	3196	2822	1683	1581	953	755
1924	455	587	675	762	1103	712	523	528	520	274	261	261
1925	402	621	772	775	5112	1808	2437	2296	908	559	871	658
1926	460	588	688	780	4987	1625	2984	2088	909	294	261	261
1927	465	1888	2403	2960	11456	4623	5701	5093	4416	1517	856	709
1928	463	1307	1689	2350	2062	9433	3785	2490	899	670	822	657
1929	451	615	694	739	786	998	692	1659	864	286	261	261
1930	402	576	1418	1860	2822	2936	1545	2082	908	304	261	261
1931	452	615	653	780	751	890	532	529	528	274	261	261
1932	402	613	839	849	1278	1562	2300	3632	3190	1344	929	594
1933	456	576	678	770	736	941	885	1550	864	306	263	261
1934	402	574	766	922	1536	1391	534	541	542	276	261	261
1935	402	635	681	877	1026	1146	6906	4182	2476	1293	901	628
1936	454	572	673	3847	8093	2977	3918	3347	1915	1395	910	687
1937	458	568	684	759	2628	2132	3123	3944	1312	1250	863	591
1938	463	959	5806	1862	6829	9369	6044	9613	7139	2013	1057	736
1939	453	575	648	772	760	1341	740	1594	852	278	263	261
1940	402	619	671	2327	8361	8280	4108	3048	914	893	886	687
1941	458	605	2971	5326	7423	4542	3674	6048	2386	2061	1051	814
1942	452	608	4328	6506	7852	2126	5216	5028	5244	1887	1092	730
1943	452	1415	3389	7884	4397	7794	4224	2388	1333	1443	1044	748
1944	455	572	688	772	1634	1453	692	2080	913	287	790	645
1945	454	888	1711	1166	6726	1432	1552	2767	1243	1328	979	687
1946	469	1116	6727	3307	1785	2071	2707	2805	914	1151	948	650
1947	453	669	1158	726	2064	2680	702	1574	874	321	264	261
1948	402	575	658	1013	774	1298	3876	3357	3214	1445	991	670
1949	469	573	975	749	964	2058	2357	2172	908	312	420	666
1950	447	586	700	2048	4707	2635	3608	3207	1907	1382	955	671
1951	479	8888	11088	6060	5270	2628	2799	2744	913	1009	921	646
1952	485	1103	4273	4765	7474	3935	7319	11189	7998	3188	1280	849
1953	454	588	1094	7499	1759	1870	2994	2607	5106	2031	1097	716
1954	453	629	680	2038	3334	3867	3917	2199	906	307	272	515
1955	466	612	824	1321	958	720	692	1608	894	356	870	634
1956	402	610	15786	11370	4720	2481	1861	5521	3671	1691	1120	800
1957	473	589	652	798	4006	3754	720	3509	1697	1354	964	718
1958	464	594	1624	2542	10256	4832	6798	8247	5486	1714	1132	1023
1959	457	588	666	1511	3128	1069	702	1565	866	321	268	261
1960	402	575	656	918	2727	4097	1072	2080	881	307	271	264
1961	451	642	667	741	1087	1114	692	1152	852	286	270	264
1962	402	592	712	759	5501	1915	3139	2081	1062	901	984	709
1963	5341	931	3008	3219	8471	1745	5932	6032	1616	1579	1138	844
1964	468	2297	863	1899	1313	744	715	2121	913	295	271	343
1965	447	649	18524	10251	3389	1350	4437	3592	2718	1673	1239	859
1966	447	651	994	1770	1253	1628	2252	2075	911	296	272	263
1967	447	850	3046	5619	3433	4381	2502	6210	8019	2746	1260	810
1968	468	624	712	1556	5823	2053	704	2071	879	338	293	266
1969	468	667	955	13312	6184	2677	4695	8143	4769	1706	1078	770
1970	462	600	4075	17885	4091	2965	704	2093	880	309	286	279
1971	455	1588	4305	3833	2593	4175	2414	4692	4446	2154	1240	934
1972	454	585	1181	1830	2545	3076	1406	2204	908	296	602	867
1973	471	1467	2605	7039	5628	3308	1832	3645	910	1194	1004	891
1974	470	6767	5278	9623	2845	9054	5127	4206	3130	2024	1203	807
1975	464	591	706	783	4299	4632	1761	4735	5456	1947	1258	982
1976	729	1043	665	749	780	718	532	540	548	284	263	263
1977	402	592	656	735	748	694	518	518	528	274	261	261
1978	402	664	891	3711	1201	6040	3787	3123	3385	1704	1133	1054
1979	458	613	675	1004	2633	2947	1289	3054	908	1117	969	729
1980	474	760	1563	12960	9562	3485	1795	2403	2124	1684	1063	763
1981	479	576	675	1059	1615	1690	701	1595	866	318	263	270
1982	402	5681	11565	5547	10210	5757	11841	7161	3263	1869	1149	1289
1983	588	2438	5016	4982	9732	13114	4276	7260	9728	4147	1449	1042
1984	486	6857	11782	4247	3643	3132	957	2331	1185	1436	1034	841
1985	474	1977	1158	838	1714	1059	1283	2076	908	309	266	261
1986	480	655	703	2473	22450	10052	1785	2063	911	798	982	1032
1987	488	575	662	776	1088	1465	716	1155	839	281	263	263
1988	404	628	782	1145	807	720	532	539	528	282	263	263
1989	404	836	694	768	771	10327	3132	2125	898	321	282	655
1990	747	613	657	1467	1266	1610	820	1551	862	295	267	263
1991	402	585	648	723	756	2190	692	1150	855	299	261	263
1992	403	588	649	723	757	2191	522	535	548	292	261	263
AVG.	529	1145	2427	3089	3870	3168	2607	3206	2162	1044	728	593

TABLE C-7 Shortage in Required flow in Yuba River at Marysville
SWRCB INSTREAM FLOWS
Study: a) present level demand; b) current PG&E practice; c) SWRCB minimum flows; d) Modified YRI
(CFS)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	0	0	0	0
1923	0	0	0	0	0	0	0	0	0	0	0	0
1924	0	0	0	0	0	0	0	0	0	0	0	0
1925	0	0	0	0	0	0	0	0	0	0	0	0
1926	0	0	0	0	0	0	0	0	0	0	0	0
1927	0	0	0	0	0	0	0	0	0	0	0	0
1928	0	0	0	0	0	0	0	0	0	0	0	0
1929	0	0	0	0	0	0	0	0	0	0	0	0
1930	0	0	0	0	0	0	0	0	0	0	0	0
1931	0	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	0	0	0	0	0
1933	0	0	0	0	0	0	0	0	0	0	0	0
1934	0	0	0	0	0	0	0	0	0	0	0	0
1935	0	0	0	0	0	0	0	0	0	0	0	0
1936	0	0	0	0	0	0	0	0	0	0	0	0
1937	0	0	0	0	0	0	0	0	0	0	0	0
1938	0	0	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	0	0	0	0	0	0	0	0	0
1941	0	0	0	0	0	0	0	0	0	0	0	0
1942	0	0	0	0	0	0	0	0	0	0	0	0
1943	0	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	0	0	0	0	0	0	0	0	0
1945	0	0	0	0	0	0	0	0	0	0	0	0
1946	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	0	0	0	0	0	0	0	0	0	0
1948	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
AVG.	0	0	0	0	0	0	0	0	0	0	0	0

TABLE C-8 Outflow from Englebright Reservoir
SWRCB INSTREAM FLOWS
Study: a) present level demand; b) current PG&E practice; c) SWRCB minimum flows; d) Modified YRI
(CFS)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	907	699	601	630	2394	2102	3784	9960	9611	2863	1759	921
1923	722	650	3107	2008	1248	737	3103	3604	2463	2486	1712	1016
1924	719	718	672	662	886	689	725	1255	1217	1068	928	485
1925	560	679	648	642	4300	1563	2495	3085	1701	1468	1648	921
1926	724	690	667	644	4431	1439	2890	2918	1705	1215	1043	525
1927	700	1604	2239	2670	10142	4017	5549	5818	5150	2419	1617	954
1928	718	1243	1573	2151	1822	8450	3834	3289	1683	1578	1584	920
1929	719	669	664	697	667	845	785	2423	1619	1172	1005	512
1930	657	719	1093	1627	2509	2604	1658	2899	1697	1213	1043	524
1931	721	667	707	643	664	768	740	1295	1266	1114	966	497
1932	618	680	680	691	1001	1231	2159	4230	3958	2252	1689	858
1933	724	710	679	660	688	788	928	2255	1646	1239	1045	524
1934	643	717	629	765	1334	1257	780	1383	1358	1210	1044	525
1935	667	640	669	707	817	903	6299	4830	3247	2201	1660	891
1936	717	711	687	3160	6844	2767	3992	4147	2698	2305	1671	949
1937	724	719	674	675	1753	1462	2910	4667	2094	2160	1625	857
1938	714	772	5036	1664	5115	7816	5750	10280	7913	2917	1818	980
1939	717	720	708	656	657	1131	872	2128	1378	879	771	432
1940	575	719	708	1695	7515	7448	4060	3871	1705	1806	1647	951
1941	710	675	2637	4628	6571	3961	3410	6715	3170	2962	1809	1055
1942	719	683	3896	5967	6868	1838	4860	5559	6012	2789	1847	971
1943	719	1356	3210	7051	3948	6795	4240	3187	2108	2347	1799	989
1944	724	714	672	652	1280	1163	804	2901	1705	1220	1571	908
1945	713	792	1668	1112	6020	1200	1652	3572	2024	2241	1737	950
1946	708	1070	6101	3038	1600	1830	2804	3627	1701	2063	1710	916
1947	724	655	1125	722	1893	2426	876	2413	1671	1252	1046	524
1948	600	711	721	824	729	1093	3660	4057	4015	2373	1775	936
1949	741	709	733	667	748	1482	2367	2980	1706	1222	1205	930
1950	719	692	714	1553	4108	2332	3615	3996	2698	2290	1719	937
1951	700	8196	10246	5220	4761	2207	2932	3442	1702	1916	1685	912
1952	692	1049	3855	3791	6341	3076	6899	11700	8734	4099	2044	1096
1953	726	703	865	6882	1674	1597	3006	3320	5873	2941	1861	978
1954	724	652	672	1678	2959	3498	3891	3012	1697	1222	1056	781
1955	718	670	688	1156	822	665	864	2325	1679	1292	1654	900
1956	674	667	14021	9829	4051	2194	1989	6237	4448	2587	1884	1048
1957	689	710	711	623	3622	3441	841	4037	2472	2266	1745	984
1958	705	703	1423	2231	9298	4028	5917	8970	6263	2622	1896	1281
1959	729	706	699	1216	2676	971	894	2354	1616	1205	1014	512
1960	655	719	700	683	2096	3783	1239	2892	1672	1222	1055	530
1961	719	647	687	703	912	949	882	1971	1648	1222	1055	530
1962	674	689	650	654	4490	1537	3257	2892	1842	1809	1745	975
1963	4891	1030	2888	2949	7906	1390	5292	6651	2387	2477	1895	1092
1964	714	2137	885	1676	1210	656	886	2947	1702	1217	1054	609
1965	719	627	17333	9072	3128	1230	4192	4366	3498	2575	1997	1104
1966	719	630	924	1560	1100	1498	2393	2896	1704	1227	1050	527
1967	719	730	2733	4822	3172	3813	2133	6736	8753	3643	2009	1055
1968	721	686	646	1316	5323	1837	852	2875	1677	1235	1055	521
1969	703	669	734	11709	5018	2192	4435	8800	5537	2597	1825	1005
1970	724	702	3702	16655	3620	2516	857	2908	1662	1209	1041	524
1971	724	1488	3874	3452	2412	3746	2453	5465	5223	3054	1995	1181
1972	725	703	990	1713	2307	2975	1541	3034	1697	1216	1384	1128
1973	703	1324	2442	6116	4638	2667	1903	4455	1690	2093	1761	1139
1974	700	6229	4779	8797	2480	7926	4790	4978	3929	2918	1951	1044
1975	723	695	658	631	3617	4057	1682	5412	6217	2835	1999	1205
1976	884	1036	701	692	633	658	744	1286	1250	1101	952	487
1977	640	707	712	687	680	696	640	939	922	729	649	387
1978	533	692	670	2605	886	5367	3503	3848	4169	2608	1890	1295
1979	721	673	680	764	2142	2557	1388	3819	1697	2024	1742	992
1980	701	814	1394	12101	8593	2982	1897	3210	2910	2586	1820	997
1981	722	714	684	841	1509	1471	901	2386	1615	1196	1002	521
1982	610	5257	10847	4869	9259	4902	10735	7854	4040	2763	1903	1521
1983	755	2222	4617	3952	8305	11314	3887	7762	10495	5039	2199	1280
1984	695	6405	10830	3874	3164	2785	1058	3116	1963	2338	1795	1087
1985	692	1798	1134	788	1444	851	1418	2901	1701	1233	1043	514
1986	703	628	636	2220	20278	9061	1904	2860	1696	1700	1737	1278
1987	721	724	717	654	875	1263	871	1730	1403	926	806	442
1988	594	702	617	895	721	692	732	1369	1333	1205	1040	522
1989	669	720	653	639	634	9353	3231	2931	1676	1225	1038	915
1990	904	689	707	1220	1073	1445	1042	2299	1634	1215	1039	519
1991	663	694	705	703	678	1567	813	1948	1636	1197	1035	521
1992	663	694	705	703	678	1569	643	1333	1329	1190	1035	521
AVG.	762	1151	2236	2713	3377	2748	2578	3938	2926	1934	1478	843

TABLE C-9 Flow in Yuba River at Smartville
SWRCB INSTREAM FLOWS
Study: a) present level demand; b) current PG&E practice; c) SWRCB minimum flows; d) Modified YRI
(CFS)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	920	724	719	719	2718	2431	4222	10337	9680	2880	1781	939
1923	732	722	3338	2143	1348	828	3316	3633	2486	2506	1733	1016
1924	719	731	719	719	1010	729	731	1255	1218	1068	928	485
1925	596	717	747	723	4782	1731	2619	3115	1718	1488	1651	921
1926	725	722	719	719	4763	1567	3101	2930	1722	1225	1043	525
1927	719	1847	2379	2844	10976	4461	5829	5896	5182	2437	1638	972
1928	728	1364	1681	2271	1967	9078	3974	3316	1704	1598	1604	920
1929	720	722	719	725	742	961	875	2435	1634	1172	1005	512
1930	657	719	1315	1768	2697	2824	1746	2917	1714	1233	1043	524
1931	722	722	717	719	719	866	751	1296	1266	1114	966	497
1932	631	717	800	787	1168	1448	2395	4376	3979	2272	1709	858
1933	725	720	719	719	719	904	1049	2337	1662	1239	1045	524
1934	658	720	742	861	1457	1358	787	1396	1362	1210	1044	525
1935	669	717	714	811	944	1072	6816	4938	3269	2221	1681	891
1936	719	719	715	3560	7606	2942	4122	4174	2716	2326	1692	950
1937	725	719	715	724	2272	1882	3214	4744	2113	2181	1646	857
1938	722	960	5533	1783	6248	8898	6125	10396	7930	2936	1839	997
1939	720	724	716	719	719	1278	883	2140	1379	879	771	432
1940	576	719	713	2058	8016	7997	4262	3885	1727	1827	1668	951
1941	719	722	2867	5043	7108	4388	3764	6836	3189	2981	1828	1073
1942	719	728	4182	6288	7492	2065	5276	5780	6028	2810	1866	989
1943	721	1470	3358	7544	4232	7505	4408	3214	2124	2366	1818	1007
1944	725	719	719	719	1492	1359	898	2912	1721	1221	1572	908
1945	718	926	1737	1148	6440	1363	1741	3594	2046	2262	1757	950
1946	726	1174	6511	3199	1714	1999	2904	3640	1724	2084	1731	916
1947	725	742	1186	729	1998	2601	921	2427	1687	1252	1046	524
1948	635	719	725	933	760	1239	3947	4144	4034	2376	1776	936
1949	741	719	907	719	880	1847	2507	2998	1724	1243	1205	930
1950	719	722	746	1839	4465	2537	3765	4026	2722	2310	1740	937
1951	727	8681	10794	5793	5112	2530	3015	3542	1724	1935	1706	912
1952	726	1158	4145	4368	7109	3684	7352	11922	8766	4121	2065	1115
1953	726	725	1031	7248	1727	1786	3159	3395	5890	2962	1882	982
1954	725	722	719	1889	3183	3742	4067	3029	1714	1243	1057	781
1955	720	722	803	1257	906	719	925	2393	1695	1292	1655	900
1956	674	722	15111	10872	4510	2423	2075	6325	4465	2607	1905	1066
1957	721	728	719	719	3850	3651	931	4235	2486	2287	1749	984
1958	721	728	1572	2418	9866	4582	6684	9050	6280	2642	1917	1289
1959	729	727	723	1382	2947	1055	917	2367	1633	1205	1014	512
1960	655	719	714	813	2472	3993	1295	2910	1689	1243	1056	530
1961	720	720	719	729	1019	1072	921	1982	1665	1222	1055	530
1962	674	717	719	719	5089	1786	3336	2910	1865	1829	1766	975
1963	5302	1063	3002	3111	8256	1664	5897	6802	2402	2497	1916	1110
1964	729	2306	917	1811	1274	735	931	2958	1718	1221	1054	609
1965	719	719	18077	9849	3312	1351	4532	4409	3516	2594	2016	1122
1966	719	719	1009	1687	1194	1599	2458	2907	1721	1227	1050	527
1967	719	878	2960	5295	3329	4229	2557	6946	8790	3659	2029	1074
1968	732	738	719	1461	5622	1990	911	2892	1694	1253	1075	522
1969	722	749	903	12685	5805	2548	4788	8921	5552	2616	1845	1024
1970	734	732	3952	17408	3946	2853	925	2923	1681	1227	1061	540
1971	725	1624	4172	3680	2523	4033	2598	5513	5240	3075	2014	1198
1972	726	722	1134	1786	2452	3057	1617	3046	1714	1221	1384	1128
1973	723	1485	2581	6663	5288	3123	2024	4474	1709	2112	1781	1149
1974	722	6620	5116	9328	2734	8723	5193	5022	3953	2934	1970	1061
1975	733	725	722	719	4021	4421	1889	5509	6232	2850	2017	1221
1976	954	1130	720	729	719	719	753	1299	1265	1103	952	487
1977	640	719	716	719	719	718	640	939	923	729	649	387
1978	533	716	809	3257	1074	5810	3870	3924	4188	2627	1910	1310
1979	722	722	719	904	2436	2813	1483	3862	1714	2043	1746	992
1980	725	865	1531	12610	9208	3359	2001	3233	2930	2604	1840	1014
1981	733	722	716	966	1576	1626	925	2399	1633	1196	1002	521
1982	634	5578	11311	5298	9906	5515	11654	7951	4056	2782	1923	1537
1983	813	2429	4896	4616	9268	12562	4325	7990	10511	5057	2218	1298
1984	727	6751	11468	4134	3494	3058	1163	3153	1981	2357	1814	1100
1985	722	1978	1192	821	1607	1000	1484	2913	1718	1235	1043	514
1986	724	722	719	2373	21639	9766	1996	2890	1716	1719	1757	1293
1987	736	727	727	719	1004	1407	878	1743	1405	926	806	442
1988	594	719	729	1045	775	719	775	1381	1334	1205	1040	522
1989	669	864	719	719	719	9952	3326	2949	1699	1244	1057	916
1990	972	732	721	1358	1191	1568	1059	2367	1648	1216	1039	519
1991	663	719	713	718	719	1953	893	1969	1651	1215	1035	521
1992	664	722	714	718	720	1954	723	1354	1344	1208	1035	521
AVG.	779	1230	2387	2943	3687	3042	2759	3997	2943	1947	1489	848

TABLE C-10 Required Carryover Storage at New Bullards Bar
SWRCB STAFF INSTREAM FLOWS
Study: a) present level demand; b) current PG&E practice; c) SWRCB minimum flows; d) Modified YRI

Year	ac-ft
1922	600000
1923	600000
1924	464000
1925	600000
1926	600000
1927	600000
1928	600000
1929	600000
1930	600000
1931	438000
1932	600000
1933	600000
1934	322000
1935	600000
1936	600000
1937	600000
1938	600000
1939	600000
1940	600000
1941	600000
1942	600000
1943	600000
1944	600000
1945	600000
1946	600000
1947	600000
1948	600000
1949	600000
1950	600000
1951	600000
1952	600000
1953	600000
1954	600000
1955	600000
1956	600000
1957	600000
1958	600000
1959	600000
1960	600000
1961	600000
1962	600000
1963	600000
1964	600000
1965	600000
1966	600000
1967	600000
1968	600000
1969	600000
1970	600000
1971	600000
1972	600000
1973	600000
1974	600000
1975	600000
1976	592000
1977	311000
1978	600000
1979	600000
1980	600000
1981	600000
1982	600000
1983	600000
1984	600000
1985	600000
1986	600000
1987	600000
1988	311000
1989	600000
1990	600000
1991	600000
1992	600000
AVG.	583634

Table C-1 Total Outflow from New Bullards Bar Reservoir
SWRCB INSTREAM FLOWS
Study: a) present level demand; b) current PG&E practice; c) SWRCB minimum flow; d) modified YRI
(CFS)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	706	552	317	293	1241	1232	2550	6802	6067	2772	1718	895
1923	588	419	2113	1418	826	273	2221	2674	2088	2421	1675	960
1924	560	532	421	455	289	523	576	1189	1216	1070	933	470
1925	346	374	274	271	2221	946	1895	2130	1599	1721	1623	892
1926	602	508	450	402	2691	768	2047	2261	1619	1199	1039	511
1927	563	1279	1696	2000	7038	2892	4044	3353	3701	2381	1601	924
1928	601	831	1170	1617	1253	5761	2688	1760	1575	1553	1583	898
1929	611	478	463	519	290	261	276	2021	1516	1150	1006	504
1930	511	515	265	1246	1695	1632	1160	2213	1587	1197	1030	629
1931	652	406	615	351	342	262	579	1288	1317	1211	1045	516
1932	451	405	276	271	292	383	1262	3261	2937	2207	1660	849
1933	620	564	548	485	501	264	268	1754	1473	1210	1035	515
1934	443	446	264	262	882	693	680	1307	1313	1206	1045	514
1935	503	306	374	266	290	259	4321	3587	2668	2159	1633	874
1936	590	591	619	1683	4038	2203	3427	2748	2142	2278	1654	920
1937	622	603	595	539	292	260	2067	3582	1955	2139	1612	853
1938	582	343	3502	1334	2894	5477	4683	6493	5057	2815	1792	941
1939	575	601	636	434	311	260	540	1965	1290	828	771	412
1940	454	514	555	595	5272	5364	2934	2196	1626	1807	1630	925
1941	592	486	1949	3163	4792	2842	2529	4506	2517	2887	1761	1006
1942	599	475	2870	4500	4751	1246	3613	3779	4001	2721	1781	916
1943	617	1042	2546	4966	2937	4764	2877	1762	1887	2277	1728	943
1944	612	606	546	420	289	259	457	2055	1565	1632	1633	881
1945	608	360	1338	927	4001	513	1146	2671	1887	2223	1680	916
1946	576	724	4130	2258	1105	1085	2241	2500	1598	2046	1697	899
1947	627	337	777	656	1279	1366	506	2318	1554	1177	1025	497
1948	421	500	566	544	418	259	2071	3156	3130	2331	1762	924
1949	631	599	262	460	290	260	1574	2169	1649	1290	1619	898
1950	635	508	587	471	2521	1411	2739	2744	2251	2240	1705	913
1951	565	5560	6932	3704	3674	1448	1758	1894	1624	1880	1677	899
1952	544	750	2874	2050	4449	1692	5396	7347	5343	3714	2036	1072
1953	640	538	262	4812	1379	790	2311	2560	3853	2907	1853	956
1954	625	411	476	890	2018	2331	3064	2009	1584	1213	1441	901
1955	520	462	261	674	410	342	671	1672	1523	1358	1647	889
1956	526	364	9740	6996	3009	1652	1676	3860	3048	2504	1871	1022
1957	521	500	643	341	2446	2268	472	2768	1972	2242	1731	952
1958	576	530	1070	1596	6883	2476	3911	6004	3898	2582	1883	1257
1959	640	519	583	641	1482	601	645	2230	1510	1135	1008	466
1960	492	501	515	270	704	2744	910	2160	1556	1213	1047	658
1961	611	436	467	525	454	258	531	1680	1557	1211	1047	524
1962	529	458	359	301	3068	704	2624	2107	1669	2170	1714	956
1963	3350	822	2379	2327	5987	766	3608	3994	2000	2386	1853	1072
1964	579	1423	688	925	828	259	502	2131	1527	1127	1221	935
1965	625	386	11842	6476	2542	942	2999	2615	2507	2499	1937	1068
1966	630	363	483	922	641	947	1854	2157	1592	1176	1002	504
1967	664	270	2424	3110	2489	2676	1155	5072	5466	3304	1926	1017
1968	582	464	452	757	3951	1221	589	2121	1604	1088	1023	461
1969	566	439	268	8579	3314	1361	3347	5117	3580	2495	1745	970
1970	622	528	2836	12075	2766	1708	690	1998	1525	1115	993	665
1971	616	1396	2460	2314	1838	2398	1825	4212	3109	2957	1911	1153
1972	630	563	301	1219	1389	2144	954	2130	1510	1211	1761	1057
1973	561	926	1973	4296	3123	1640	1526	3059	1574	2034	1720	1083
1974	558	4682	3434	6832	1889	5699	3575	3236	2898	2784	1857	977
1975	616	518	505	347	2183	2590	978	4134	4231	2677	1857	1052
1976	593	586	645	504	312	388	615	1203	1132	1008	868	395
1977	460	428	514	449	416	465	561	863	823	689	660	339
1978	427	456	290	274	670	4000	2593	2726	2726	2546	1844	1219
1979	600	501	539	275	1076	1523	953	2903	1591	1981	1700	964
1980	559	634	919	8855	6202	1950	1488	1818	2097	2493	1760	904
1981	486	573	603	261	1145	632	619	2289	1531	1124	996	504
1982	437	3295	7905	3592	6890	3292	7231	4648	2759	2669	1841	1410
1983	579	1691	3581	2407	6162	8216	2895	5203	6051	3861	2132	1215
1984	450	4180	7819	3151	2336	2063	618	1589	1640	2267	1752	1030
1985	514	1202	872	626	779	259	854	2226	1596	1149	988	416
1986	499	410	359	2230	13558	6198	1038	946	1425	2084	1694	1217
1987	472	608	650	510	288	600	713	1612	1329	866	777	407
1988	457	462	266	262	708	374	579	1222	1222	1125	1013	504
1989	512	276	265	263	348	6805	2650	1910	1537	1149	1358	1012
1990	555	483	589	768	551	897	740	2058	1388	1124	965	449
1991	491	423	563	530	499	263	469	1703	1484	1098	1001	496
1992	491	423	563	530	499	263	298	1088	1177	1096	1474	901
AVG.	598	793	1576	1849	2259	1740	1837	2740	2233	1879	1479	828

Table C-2 New Bullards Bar Reservoir End-of-month Storage
SWRCB INSTREAM FLOWS
Study: a) present level demand; b) current PG&E practice; c) SWRCB minimum flow; d) modified YRI
(AF)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	549619	531770	570718	619640	720000	790000	890000	966000	950000	840000	750000	705000
1923	679238	680830	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1924	682726	660075	658958	648338	694859	694275	722931	681152	613392	549474	492963	470455
1925	463680	467861	513197	554583	720000	790000	890000	966000	929403	840000	750000	705000
1926	677580	664064	664544	671011	720000	790000	890000	848480	786501	721022	662626	638644
1927	617065	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1928	677318	705000	705000	705000	720000	790000	890000	966000	918311	840000	750000	705000
1929	674697	661480	654707	642551	667356	720111	798828	789379	748958	687044	629836	605326
1930	579301	554489	687457	705000	720000	790000	890000	890281	845844	787254	733018	705000
1931	665783	661436	629796	634433	643700	699414	722332	676862	610396	537647	476312	450671
1932	434264	428380	505084	572872	668906	790000	890000	966000	950000	840000	750000	705000
1933	672571	647013	623955	611380	601676	659996	751890	779258	795427	734527	676336	652087
1934	633126	617676	647812	694578	720000	790000	823281	780675	718052	648524	587950	562626
1935	538845	553459	565532	633102	698035	788733	890000	966000	950000	840000	750000	705000
1936	680862	663239	649272	705000	720000	790000	890000	966000	950000	840000	750000	705000
1937	674328	647056	623937	603248	665650	773156	890000	966000	950000	840000	750000	705000
1938	676930	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1939	684484	672034	661076	660598	665572	751125	852149	783803	721536	674717	628185	606428
1940	588336	568273	551450	705000	720000	790000	890000	966000	934805	840000	750000	705000
1941	679801	683414	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1942	683236	688514	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1943	676934	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1944	679540	657635	642934	649102	685315	770707	864376	942564	921599	840000	750000	705000
1945	677159	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1946	687357	705000	705000	705000	720000	790000	890000	966000	942085	840000	750000	705000
1947	677632	705000	705000	692886	720000	790000	890000	821207	769871	709748	656479	634650
1948	639802	636015	623105	705000	718015	746289	890000	966000	950000	840000	750000	705000
1949	676340	662111	667011	658047	664820	751234	890000	950746	905253	840000	750000	705000
1950	672470	656102	633040	705000	720000	790000	890000	966000	950000	840000	750000	705000
1951	701979	705000	705000	705000	720000	790000	890000	966000	931731	840000	750000	705000
1952	698047	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1953	676610	659823	693659	705000	720000	790000	890000	966000	950000	840000	750000	705000
1954	682449	690939	694112	705000	720000	790000	890000	932156	883916	828219	750000	705000
1955	677282	669357	702915	705000	720000	768980	838221	920512	902400	840000	750000	705000
1956	680949	679326	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1957	696818	689177	675876	685044	720000	790000	890000	966000	950000	840000	750000	705000
1958	693746	694852	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1959	674596	658703	638652	705000	720000	790000	860758	796348	733352	675416	622861	606906
1960	584548	560390	536160	562861	720000	790000	890000	877338	841482	787404	736384	705000
1961	673220	671901	679386	663409	720000	788882	868792	880950	837242	777062	722753	698799
1962	676442	660008	679359	686497	720000	790000	890000	946345	950000	840000	750000	705000
1963	705000	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1964	687173	705000	705000	705000	720000	770856	867224	883060	858770	810113	750000	705000
1965	694613	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1966	681231	703162	705000	705000	720000	790000	890000	893027	827204	768617	715752	694689
1967	662571	704800	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1968	687546	673517	685489	705000	720000	790000	870591	846469	793422	738021	686104	660125
1969	638845	657567	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1970	688989	678440	705000	705000	720000	790000	847517	854752	828879	784287	736610	705000
1971	689496	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1972	688775	683193	705000	705000	720000	790000	890000	921429	894993	840000	750000	705000
1973	699429	705000	705000	705000	720000	790000	890000	966000	941219	840000	750000	705000
1974	700719	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1975	685546	677884	673593	696103	720000	790000	890000	966000	950000	840000	750000	705000
1976	705000	705000	703311	696054	715745	759026	782466	765998	710871	653374	606873	588856
1977	567463	549753	525833	510968	500647	488529	474045	454531	415857	375549	337705	320820
1978	299125	285689	362812	636385	720000	790000	890000	966000	950000	840000	750000	705000
1979	681139	670327	654759	705000	720000	790000	890000	966000	940256	840000	750000	705000
1980	700381	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1981	683615	664295	666127	694228	720000	790000	868301	808640	741869	682723	626966	603928
1982	603852	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1983	705000	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1984	704791	705000	705000	705000	720000	790000	890000	966000	950000	840000	750000	705000
1985	690736	705000	705000	705000	720000	782914	890000	858860	797145	739905	688561	675464
1986	653618	659986	695816	705000	720000	790000	890000	966000	943200	840000	750000	705000
1987	693275	673774	652210	652289	718164	790000	830046	779396	714794	670277	628553	609999
1988	589592	573008	639032	703507	720000	758135	792922	771667	724375	667064	609391	584335
1989	558182	616426	629684	658781	720000	790000	890000	906577	872692	819284	750000	705000
1990	705000	700745	686762	705000	720000	790000	856037	793926	783398	729333	684441	666907
1991	640421	632106	603583	584991	574804	711244	816804	830740	799059	749538	700629	679824
1992	653315	644991	616463	597867	587361	723832	839547	891256	877730	828163	750000	705000
AVG.	654396	655663	662242	678667	705220	774471	865480	904682	875455	790061	713342	675585

Table C-3 Total Energy Production at New Bullards Bar Reservoir
SWRCB INSTREAM FLOWS
Study: a) present level demand; b) current PG&E practice; c) SWRCB minimum flow; d) modified YRI
(MWH)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	49367	36937	21831	20418	80620	89870	183252	269514	260820	208413	126084	62857
1923	42280	28930	153097	102832	53991	19587	159542	202019	153188	181961	122916	67451
1924	40278	36818	29940	32360	19161	37580	40199	86121	84207	75346	64449	30857
1925	23257	24348	18500	18500	143567	68891	136021	160839	117053	128934	119086	62645
1926	43288	35099	32065	28631	176314	55866	147027	168914	115570	87456	75025	35163
1927	39885	88908	123034	145212	236581	211218	258983	248057	260820	178947	117465	64907
1928	43234	57988	84732	117323	85011	263415	193145	132801	115162	116142	116139	63069
1929	43923	32980	32959	36930	18500	18500	19157	148439	107307	83448	72122	34426
1930	35873	34758	18500	90156	111201	119190	83148	166165	114579	88160	75122	43999
1931	46862	27917	43762	24751	21806	18500	40379	93300	91193	85130	71989	33730
1932	30216	26148	18500	18500	19161	27532	90497	242219	214950	165834	121811	59606
1933	44538	38958	38893	34248	31887	18500	18500	128294	104516	88320	74923	35548
1934	31392	30457	18500	18500	57664	50369	48152	96008	92637	86975	74250	34711
1935	34886	20343	25897	18500	18500	18500	258944	263641	195837	162217	119822	61373
1936	42402	40918	44190	121408	245031	160983	240317	207603	157161	171184	121369	64624
1937	44720	41674	42266	38072	18500	18500	148170	263282	143402	160709	118275	59889
1938	41802	23721	247260	96716	189866	263415	258983	269514	260820	211653	131536	66108
1939	41330	41675	45518	30896	19900	18500	38146	145040	91037	59826	55070	28044
1940	31866	34745	38631	42190	245031	263415	210214	165806	119058	135481	119601	64977
1941	42562	33639	141235	226851	236581	207883	181719	269514	184753	216826	129297	70702
1942	43092	32898	208170	261667	236581	90874	252468	269514	260820	204569	130770	64341
1943	44339	72784	184923	261667	192341	263415	206603	132927	138399	171109	126866	66250
1944	44031	41936	38877	29789	19161	18500	32316	154646	114331	122151	119822	61868
1945	43712	24905	96965	67079	236581	37177	82093	201789	138399	167040	123285	64341
1946	41434	50498	261667	163992	72358	79079	161000	188811	117055	153594	124537	63140
1947	45116	23286	56115	47307	83744	99706	36012	172706	110341	85653	73870	34150
1948	29776	34351	40132	38859	28106	18500	147964	235543	227243	175179	129325	64907
1949	45402	41452	18500	32785	18500	18500	112400	163594	120421	96238	118791	63069
1950	45673	35049	41775	33618	165567	102983	196810	207328	165181	168321	125172	64129
1951	40686	253175	261667	261538	234565	105700	126208	142965	118882	140913	123064	63140
1952	39147	52422	208697	148853	245031	123592	258983	269514	260820	269514	149511	75367
1953	46028	37177	18500	261453	90397	57478	166048	193341	260820	218154	136029	67168
1954	44964	28410	34153	64333	132428	170379	218358	151331	115267	90133	105646	63281
1955	37321	31898	18500	48656	26603	24611	47526	125099	110864	101353	120854	62433
1956	37794	25076	261032	261667	203456	120608	120268	269514	222091	188216	137355	71833
1957	37470	34707	46185	24291	160421	165798	33592	209108	144653	168472	127087	66886
1958	41463	36827	77398	115794	236581	181007	258983	269514	260820	194094	138239	88441
1959	46002	35836	41525	45939	97178	43626	45843	165123	106789	82202	72102	31803
1960	34580	33855	35659	18500	46890	200670	65134	161907	112114	89279	76357	46024
1961	43919	30072	33376	37549	29422	18500	37699	125614	112176	89016	76239	36544
1962	37939	31588	25529	21404	199546	51175	188534	158884	122163	163046	125789	67168
1963	238198	57507	172771	168983	236581	55719	252111	269514	146713	179323	136029	75367
1964	41651	99674	49634	66933	56031	18500	35539	159423	110326	83312	89340	65684
1965	45024	26729	261667	261667	166984	68599	214288	197535	184003	187839	142217	75084
1966	45309	25073	34710	66715	41811	68982	133089	161948	114779	86274	72859	35078
1967	47643	18500	176068	223536	163468	195663	82788	269514	260820	243784	141407	71469
1968	41865	32124	32317	54588	245031	89035	41919	158056	114548	79412	74091	31820
1969	40328	30155	19014	261667	213411	99283	235539	269514	255748	187538	128073	68158
1970	44817	36602	205604	261667	181676	124735	49041	148626	109483	81878	72360	46503
1971	44365	97801	178690	168068	120612	175312	130977	269514	225923	221463	140347	81091
1972	45361	39113	21442	88341	94284	156665	68254	160306	109903	90232	129252	74307
1973	40425	64841	143221	261667	202824	119771	109491	229242	115331	152685	126231	76144
1974	40210	253154	243235	261667	123953	263415	249845	240660	212419	209317	136324	68653
1975	44368	35920	36091	24750	143271	189418	69982	269514	260820	201253	136369	73953
1976	42721	40876	46532	36254	20864	27935	43258	87933	79727	72629	61800	26804
1977	32111	28730	35479	30776	25641	31674	36908	58584	53568	45733	43122	20979
1978	27252	27943	18500	18500	43411	263415	186297	205919	200142	191381	135366	85756
1979	43165	34682	38477	19508	70449	111198	68218	218959	116520	148690	124758	67734
1980	40245	44274	66455	261667	245031	142446	106748	137184	153850	187387	129178	63493
1981	34869	39710	43121	18500	74946	45888	44008	169858	108429	81509	71313	34433
1982	30696	224837	261667	253597	236581	236275	258983	269514	202579	200651	135145	99255
1983	41701	118745	252855	174848	236581	263415	207749	269514	260820	269514	156583	85473
1984	32337	253223	261667	226066	158872	150772	44088	119882	120225	170356	128589	72398
1985	36939	84217	63032	45160	50896	18500	61039	166495	114217	83903	71604	28739
1986	35608	28155	25571	161816	236581	263415	74352	71169	104353	156498	124316	85614
1987	33869	42245	46457	36311	18500	43559	50569	118570	93766	62504	55470	27718
1988	32074	31249	18500	18500	47848	26893	40742	89470	86201	81370	72271	34250
1989	35752	18500	18500	18500	22437	263415	190463	143548	111505	85164	99469	71126
1990	39954	33576	42374	55374	35886	65310	52660	152206	98452	81932	69814	30998
1991	34930	28930	39814	37255	31521	18500	32860	125859	105827	80235	72650	34431
1992	35029	29013	39928	37376	32729	18500	20764	81023	85183	81367	108081	63281
AVG.	42714	51426	86226	100422	117789	106455	123125	182886	149858	139667	108049	57842

Table C-4 Total Delivery at Daguerre Point Dam
SWRCB INSTREAM FLOWS
Study: a) present level demand; b) current PG&E practice; c) SWRCB minimum flow; d) modified YRI
(AF)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
1922	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1923	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1924	16727	9191	4586	352	352	2648	13806	45125	41651	48910	41058	13443	237848
1925	14218	7812	3898	299	299	2251	16242	53088	49001	57541	48304	15815	268769
1926	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1927	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1928	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1929	16727	9191	4586	352	352	2648	15430	50434	46551	54664	45889	15024	261847
1930	15891	8731	4357	334	334	2516	16242	53088	49001	57541	48304	15815	272154
1931	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1932	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1933	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1934	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1935	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1936	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1937	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1938	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1939	16727	9191	4586	352	352	2648	10557	34507	31851	37402	31398	10280	189850
1940	10873	5974	2981	229	229	1721	16242	53088	49001	57541	48304	15815	261997
1941	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1942	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1943	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1944	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1945	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1946	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1947	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1948	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1949	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1950	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1951	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1952	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1953	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1954	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1955	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1956	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1957	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1958	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1959	16727	9191	4586	352	352	2648	15430	50434	46551	54664	45889	15024	261847
1960	15891	8731	4357	334	334	2516	16242	53088	49001	57541	48304	15815	272154
1961	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1962	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1963	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1964	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1965	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1966	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1967	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1968	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1969	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1970	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1971	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1972	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1973	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1974	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1975	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1976	16727	9191	4586	352	352	2648	15430	50434	46551	54664	45889	15024	261847
1977	15891	8731	4357	334	334	2516	8933	29198	26951	31648	26567	8698	164158
1978	9200	5055	2522	194	194	1456	16242	53088	49001	57541	48304	15815	258612
1979	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1980	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1981	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1982	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1983	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1984	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1985	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1986	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1987	16727	9191	4586	352	352	2648	11369	37162	34301	40279	33813	11071	201850
1988	11709	6434	3210	246	246	1854	16242	53088	49001	57541	48304	15815	263690
1989	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1990	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1991	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
1992	16727	9191	4586	352	352	2648	16242	53088	49001	57541	48304	15815	273847
AVG.	16397	9010	4496	345	345	2596	15922	52041	48035	56406	47352	15503	268447

Table C-5 Total Deliveries and Deficiencies at Daguerre Point Diversion Dam
SWRCB INSTREAM FLOWS
Study 1: a) present level demand; b) current PG&E practice; c) SWRCB minimum flows; d) modified YRI

Water Year	Year Type (YRI)	Total Annual Delivery (ac-ft)	Total Annual Demand (ac-ft)	Deficiency, Percent of Demand %	Deficiency, Volume (ac-ft)
1922	W	273847	273847	0.0%	0
1923	AN	273847	273847	0.0%	0
1924	EC	237848	273847	13.1%	35999
1925	BN	268769	273847	1.9%	5078
1926	BN	273847	273847	0.0%	0
1927	W	273847	273847	0.0%	0
1928	AN	273847	273847	0.0%	0
1929	D	261847	273847	4.4%	12000
1930	BN	272154	273847	0.6%	1693
1931	EC	273847	273847	0.0%	0
1932	BN	273847	273847	0.0%	0
1933	D	273847	273847	0.0%	0
1934	EC	273847	273847	0.0%	0
1935	AN	273847	273847	0.0%	0
1936	AN	273847	273847	0.0%	0
1937	AN	273847	273847	0.0%	0
1938	W	273847	273847	0.0%	0
1939	D	189850	273847	30.7%	83997
1940	AN	261997	273847	4.3%	11850
1941	W	273847	273847	0.0%	0
1942	W	273847	273847	0.0%	0
1943	W	273847	273847	0.0%	0
1944	BN	273847	273847	0.0%	0
1945	AN	273847	273847	0.0%	0
1946	AN	273847	273847	0.0%	0
1947	D	273847	273847	0.0%	0
1948	AN	273847	273847	0.0%	0
1949	BN	273847	273847	0.0%	0
1950	AN	273847	273847	0.0%	0
1951	W	273847	273847	0.0%	0
1952	W	273847	273847	0.0%	0
1953	W	273847	273847	0.0%	0
1954	AN	273847	273847	0.0%	0
1955	D	273847	273847	0.0%	0
1956	W	273847	273847	0.0%	0
1957	AN	273847	273847	0.0%	0
1958	W	273847	273847	0.0%	0
1959	D	261847	273847	4.4%	12000
1960	BN	272154	273847	0.6%	1693
1961	C	273847	273847	0.0%	0
1962	BN	273847	273847	0.0%	0
1963	W	273847	273847	0.0%	0
1964	BN	273847	273847	0.0%	0
1965	W	273847	273847	0.0%	0
1966	BN	273847	273847	0.0%	0
1967	W	273847	273847	0.0%	0
1968	BN	273847	273847	0.0%	0
1969	W	273847	273847	0.0%	0
1970	W	273847	273847	0.0%	0
1971	W	273847	273847	0.0%	0
1972	BN	273847	273847	0.0%	0
1973	AN	273847	273847	0.0%	0
1974	W	273847	273847	0.0%	0
1975	W	273847	273847	0.0%	0
1976	EC	261847	273847	4.4%	12000
1977	EC	164158	273847	40.1%	109689
1978	AN	258612	273847	5.6%	15235
1979	BN	273847	273847	0.0%	0
1980	W	273847	273847	0.0%	0
1981	D	273847	273847	0.0%	0
1982	W	273847	273847	0.0%	0
1983	W	273847	273847	0.0%	0
1984	W	273847	273847	0.0%	0
1985	BN	273847	273847	0.0%	0
1986	W	273847	273847	0.0%	0
1987	C	201850	273847	26.3%	71997
1988	EC	263690	273847	3.7%	10157
1989	BN	273847	273847	0.0%	0
1990	D	273847	273847	0.0%	0
1991	C	273847	273847	0.0%	0
1992	EC	273847	273847	0.0%	0
AVG.		268447	273847	0.02	5400

Table C-6 Flow in Yuba River at Marysville
SWRCB INSTREAM FLOWS
Study: a) present level demand; b) current PG&E practice; c) SWRCB minimum flows; d) modified YRI
(CFS)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	655	587	748	775	2915	2552	4184	9677	8936	1967	1003	676
1923	467	632	3434	2231	1412	860	3196	2822	1683	1581	953	755
1924	455	587	675	762	1103	712	454	528	520	274	261	261
1925	346	521	772	774	5356	1808	2437	2015	890	852	871	658
1926	460	588	688	780	4987	1625	2984	1576	891	294	261	261
1927	465	2428	2403	2960	11456	4623	5701	5093	4416	1517	856	709
1928	463	1307	1689	2350	2062	9433	3785	2490	881	687	822	657
1929	451	615	694	739	786	998	624	1659	859	286	261	261
1930	346	473	1418	2087	2822	2936	1545	1570	890	304	261	398
1931	452	615	653	780	751	889	463	529	528	274	261	261
1932	346	496	831	847	1276	1682	2375	3632	3190	1344	929	594
1933	456	576	678	770	736	941	885	1550	859	306	263	261
1934	346	472	766	922	1713	1391	465	541	542	276	261	261
1935	346	535	584	876	1024	1146	7235	4182	2476	1293	901	628
1936	454	572	673	3847	8093	2977	3918	3347	1915	1395	910	687
1937	458	568	684	759	2628	2132	3123	3944	1312	1250	863	591
1938	463	959	5806	1862	6829	9369	6044	9613	7139	2013	1057	736
1939	453	575	648	772	760	1341	672	1594	847	278	263	261
1940	396	517	570	2602	8361	8280	4108	3048	896	910	886	687
1941	458	605	2971	5326	7423	4542	3674	6048	2386	2061	1051	814
1942	452	608	4328	6506	7852	2126	5216	5028	5244	1887	1092	730
1943	452	1415	3389	7884	4397	7794	4224	2388	1333	1443	1044	748
1944	455	572	688	772	1634	1453	692	1568	895	718	880	645
1945	454	888	1711	1166	6726	1432	1552	2767	1243	1328	979	687
1946	469	1116	6727	3307	1785	2071	2707	2805	896	1168	948	650
1947	453	669	1158	726	2064	2680	701	1574	869	321	264	261
1948	346	473	556	1275	631	1298	4014	3357	3214	1445	991	670
1949	469	573	975	749	964	2058	2357	1660	890	411	841	666
1950	447	586	700	2048	4707	2635	3608	3207	1907	1382	955	671
1951	479	8888	11088	6060	5270	2628	2799	2744	895	1027	921	646
1952	485	1103	4273	4765	7474	3935	7319	11189	7998	3188	1280	849
1953	454	588	1094	7499	1759	1870	2994	2607	5106	2031	1097	716
1954	453	629	680	2038	3334	3867	3917	1687	888	307	667	647
1955	466	612	824	1321	958	720	624	1608	889	426	870	634
1956	346	508	15940	11370	4720	2481	1861	5521	3671	1691	1120	800
1957	473	589	652	798	4006	3754	720	3509	1697	1354	964	718
1958	464	594	1624	2542	10256	4832	6798	8247	5486	1714	1132	1023
1959	457	588	666	1511	3128	1069	634	1565	861	321	268	261
1960	346	472	554	918	3079	4097	1072	1568	863	307	271	401
1961	451	642	667	741	1252	1113	624	1152	852	286	270	264
1962	346	490	610	657	6233	1915	3139	1569	1165	1306	984	709
1963	5341	931	3008	3219	8471	1745	5932	6032	1616	1579	1138	844
1964	468	2297	863	1899	1313	744	715	1609	895	295	465	686
1965	447	649	18524	10251	3389	1350	4437	3592	2718	1673	1239	859
1966	447	651	994	1770	1253	1628	2252	1563	893	296	272	263
1967	447	848	3571	5619	3433	4381	2502	6210	8019	2746	1260	810
1968	468	624	712	1556	5823	2053	704	1559	861	338	293	266
1969	468	667	960	13830	6184	2677	4695	8143	4769	1706	1078	770
1970	462	600	4075	17885	4091	2965	704	1581	862	309	286	448
1971	455	1960	4305	3833	2593	4175	2414	4692	4446	2154	1240	934
1972	454	585	1181	1830	2545	3076	1406	1692	890	401	1021	867
1973	471	1467	2605	7039	5628	3308	1832	3645	892	1211	1004	891
1974	470	6767	5278	9623	2845	9054	5127	4206	3130	2024	1203	807
1975	464	591	706	783	4299	4632	1761	4735	5456	1947	1258	982
1976	729	1043	665	749	780	718	463	540	548	284	263	263
1977	346	482	551	633	645	590	449	518	528	274	261	261
1978	377	554	885	3709	1581	6090	3787	3123	3385	1704	1133	1054
1979	458	613	675	1004	2633	2947	1289	3054	890	1135	969	729
1980	474	760	1563	12960	9562	3485	1795	2403	2124	1684	1063	763
1981	479	576	675	1059	1615	1690	633	1595	861	318	263	270
1982	346	5589	11561	5547	10210	5755	11841	7161	3263	1869	1149	1289
1983	588	2438	5016	4982	9732	13114	4276	7260	9728	4147	1449	1042
1984	486	6857	11782	4247	3643	3132	957	2331	1185	1436	1034	841
1985	474	1977	1158	838	1714	1059	1283	1564	890	309	266	261
1986	480	655	703	2996	22450	10052	1785	1622	893	1249	982	1032
1987	488	575	662	776	1088	1465	648	1155	839	281	263	263
1988	348	526	782	1145	1044	618	463	539	528	282	263	263
1989	348	835	602	708	806	10670	3132	1613	880	321	659	809
1990	747	613	657	1467	1266	1610	752	1551	857	295	267	263
1991	346	483	546	621	654	2188	624	1150	855	299	261	263
1992	347	486	547	621	654	2188	453	535	548	292	734	669
AVG.	517	1134	2424	3108	3897	3172	2599	3095	2157	1072	762	614

Table C-7 Shortage in Required flow in Yuba River at Marysville
SWRCB INSTREAM FLOWS
Study: a) present level demand; b) current PG&E practice; c) SWRCB minimum flows; d) modified YRI
(CFS)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	0	0	0	0	0	0	0	0	0	0	0	0
1923	0	0	0	0	0	0	0	0	0	0	0	0
1924	0	0	0	0	0	0	0	0	0	0	0	0
1925	0	0	0	0	0	0	0	0	0	0	0	0
1926	0	0	0	0	0	0	0	0	0	0	0	0
1927	0	0	0	0	0	0	0	0	0	0	0	0
1928	0	0	0	0	0	0	0	0	0	0	0	0
1929	0	0	0	0	0	0	0	0	0	0	0	0
1930	0	0	0	0	0	0	0	0	0	0	0	0
1931	0	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	0	0	0	0	0
1933	0	0	0	0	0	0	0	0	0	0	0	0
1934	0	0	0	0	0	0	0	0	0	0	0	0
1935	0	0	0	0	0	0	0	0	0	0	0	0
1936	0	0	0	0	0	0	0	0	0	0	0	0
1937	0	0	0	0	0	0	0	0	0	0	0	0
1938	0	0	0	0	0	0	0	0	0	0	0	0
1939	0	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	0	0	0	0	0	0	0	0	0
1941	0	0	0	0	0	0	0	0	0	0	0	0
1942	0	0	0	0	0	0	0	0	0	0	0	0
1943	0	0	0	0	0	0	0	0	0	0	0	0
1944	0	0	0	0	0	0	0	0	0	0	0	0
1945	0	0	0	0	0	0	0	0	0	0	0	0
1946	0	0	0	0	0	0	0	0	0	0	0	0
1947	0	0	0	0	0	0	0	0	0	0	0	0
1948	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
AVG.	0	0	0	0	0	0	0	0	0	0	0	0

Table C-8 Total Outflow from Englebright Reservoir
SWRCB INSTREAM FLOWS
Study: a) present level demand; b) current PG&E practice; c) SWRCB minimum flows; d) modified YRI
(CFS)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	907	699	601	630	2394	2102	3784	9960	9611	2863	1759	921
1923	722	650	3107	2008	1248	737	3103	3604	2463	2486	1712	1016
1924	719	718	672	662	886	689	656	1255	1217	1067	929	485
1925	504	579	647	641	4544	1563	2495	2805	1683	1761	1648	921
1926	724	690	667	644	4431	1439	2890	2406	1687	1215	1043	525
1927	700	2144	2239	2670	10142	4017	5549	5818	5150	2419	1617	954
1928	718	1243	1573	2151	1822	8450	3834	3289	1665	1595	1584	920
1929	719	669	664	697	667	845	717	2423	1614	1172	1005	511
1930	601	617	1092	1853	2509	2604	1658	2387	1679	1213	1043	661
1931	721	667	707	643	664	767	698	1381	1348	1208	1044	524
1932	589	578	679	690	1000	1354	2234	4230	3958	2252	1689	858
1933	724	710	679	660	688	788	928	2255	1641	1239	1045	524
1934	587	615	629	765	1511	1257	711	1383	1358	1210	1044	525
1935	611	540	572	706	815	902	6628	4830	3247	2201	1660	891
1936	717	711	687	3160	6844	2767	3992	4147	2698	2305	1671	949
1937	724	719	674	675	1753	1462	2910	4667	2094	2160	1625	857
1938	714	772	5036	1664	5115	7816	5750	10280	7913	2917	1818	980
1939	717	720	708	656	657	1131	804	2128	1373	879	772	432
1940	569	617	606	1970	7515	7448	4060	3871	1687	1823	1647	951
1941	710	675	2637	4628	6571	3961	3410	6715	3170	2962	1809	1055
1942	719	683	3896	5967	6868	1838	4860	5559	6012	2789	1847	971
1943	719	1356	3210	7051	3948	6795	4240	3187	2108	2347	1799	989
1944	724	714	672	652	1280	1163	804	2389	1687	1651	1662	908
1945	713	792	1668	1112	6020	1200	1652	3572	2024	2241	1737	950
1946	708	1070	6101	3038	1600	1830	2804	3627	1683	2081	1710	916
1947	724	655	1125	722	1893	2426	875	2413	1666	1252	1046	524
1948	544	609	619	1086	586	1092	3798	4057	4015	2373	1775	936
1949	741	709	733	667	748	1482	2367	2468	1688	1322	1625	930
1950	719	692	714	1553	4108	2332	3615	3996	2698	2290	1719	937
1951	700	8196	10246	5220	4761	2207	2932	3442	1684	1933	1685	912
1952	692	1049	3855	3791	6341	3076	6899	11700	8734	4099	2044	1096
1953	726	703	865	6882	1674	1597	3006	3320	5873	2941	1861	978
1954	724	652	672	1678	2959	3498	3891	2500	1679	1222	1451	913
1955	718	670	688	1156	822	665	796	2325	1674	1362	1654	900
1956	618	565	14175	9829	4051	2194	1989	6237	4448	2587	1884	1048
1957	689	710	711	623	3622	3441	841	4037	2472	2266	1745	984
1958	705	703	1423	2231	9298	4028	5917	8970	6263	2622	1896	1281
1959	729	706	699	1216	2676	971	826	2354	1611	1205	1014	511
1960	599	617	598	682	2448	3783	1239	2380	1654	1222	1055	667
1961	719	647	687	703	1077	949	814	1971	1648	1222	1055	530
1962	618	587	548	552	5222	1537	3257	2380	1945	2214	1745	975
1963	4891	1030	2888	2949	7906	1390	5292	6651	2387	2477	1895	1092
1964	714	2137	885	1676	1210	656	886	2435	1684	1217	1248	952
1965	719	627	17333	9072	3128	1230	4192	4366	3498	2575	1997	1104
1966	719	630	924	1560	1100	1498	2393	2384	1686	1227	1050	527
1967	719	728	3258	4822	3172	3813	2133	6736	8753	3643	2009	1055
1968	721	686	646	1316	5323	1837	852	2363	1659	1235	1055	521
1969	703	669	739	12227	5018	2192	4435	8800	5537	2597	1825	1005
1970	724	702	3702	16655	3620	2516	857	2396	1644	1209	1041	694
1971	724	1860	3874	3452	2412	3746	2453	5465	5223	3054	1995	1181
1972	725	703	990	1713	2307	2975	1541	2522	1679	1321	1803	1128
1973	703	1324	2442	6116	4638	2667	1903	4455	1672	2110	1761	1139
1974	700	6229	4779	8797	2480	7926	4790	4978	3929	2918	1951	1044
1975	723	695	658	631	3617	4057	1682	5412	6217	2835	1999	1205
1976	884	1036	701	692	633	658	688	1329	1291	1148	991	500
1977	597	605	610	585	578	594	584	982	963	776	688	400
1978	522	590	667	2603	1266	5418	3503	3848	4169	2608	1890	1295
1979	721	673	680	764	2142	2557	1388	3819	1679	2041	1742	992
1980	701	814	1394	12101	8593	2982	1897	3210	2910	2586	1820	997
1981	722	714	684	841	1509	1471	847	2429	1651	1243	1041	534
1982	568	5173	10847	4869	9259	4902	10735	7854	4040	2763	1903	1521
1983	755	2222	4617	3952	8305	11314	3887	7762	10495	5039	2199	1280
1984	695	6405	10830	3874	3164	2785	1058	3116	1963	2338	1795	1087
1985	692	1798	1134	788	1444	851	1418	2389	1683	1233	1043	514
1986	703	628	636	2743	20278	9061	1904	2419	1678	2151	1737	1278
1987	721	724	717	654	875	1263	803	1730	1403	926	806	442
1988	538	600	616	895	958	590	663	1369	1333	1205	1040	522
1989	613	719	561	579	669	9695	3231	2419	1658	1225	1415	1070
1990	904	689	707	1220	1073	1445	974	2299	1629	1215	1039	519
1991	607	592	603	601	576	1566	745	1948	1636	1197	1035	521
1992	607	592	603	601	575	1565	574	1333	1329	1190	1508	927
AVG.	750	1141	2233	2731	3403	2753	2571	3830	2924	1965	1514	864

Table C-9 Flow in Yuba River at Smartville
SWRCB INSTREAM FLOWS
Study: a) present level demand; b) current PG&E practice; c) SWRCB minimum flows; d) modified YRI
(CFS)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	920	724	719	719	2718	2431	4222	10337	9680	2880	1781	939
1923	732	722	3338	2143	1348	828	3316	3633	2486	2506	1733	1016
1924	719	731	719	719	1010	729	662	1255	1218	1067	929	485
1925	540	617	746	722	5026	1731	2619	2834	1700	1781	1651	921
1926	725	722	719	719	4763	1567	3101	2418	1704	1225	1043	525
1927	719	2387	2379	2844	10976	4461	5829	5896	5182	2437	1638	972
1928	728	1364	1681	2271	1967	9078	3974	3316	1686	1615	1604	920
1929	720	722	719	725	742	961	807	2435	1629	1172	1005	511
1930	601	617	1315	1994	2697	2824	1746	2405	1696	1233	1043	661
1931	722	722	717	719	719	865	709	1382	1348	1208	1044	524
1932	602	615	799	786	1167	1572	2470	4376	3979	2272	1709	858
1933	725	720	719	719	719	904	1049	2337	1657	1239	1045	524
1934	602	618	742	861	1634	1358	718	1396	1362	1210	1044	525
1935	613	617	617	810	942	1072	7145	4938	3269	2221	1681	891
1936	719	719	715	3560	7606	2942	4122	4174	2716	2326	1692	950
1937	725	719	715	724	2272	1882	3214	4744	2113	2181	1646	857
1938	722	960	5533	1783	6248	8898	6125	10396	7930	2936	1839	997
1939	720	724	716	719	719	1278	815	2140	1374	879	772	432
1940	570	617	611	2333	8016	7997	4262	3885	1709	1844	1668	951
1941	719	722	2867	5043	7108	4388	3764	6836	3189	2981	1828	1073
1942	719	728	4182	6288	7492	2065	5276	5780	6028	2810	1866	989
1943	721	1470	3358	7544	4232	7505	4408	3214	2124	2366	1818	1007
1944	725	719	719	719	1492	1359	898	2400	1703	1652	1662	908
1945	718	926	1737	1148	6440	1363	1741	3594	2046	2262	1757	950
1946	726	1174	6511	3199	1714	1999	2904	3640	1706	2101	1731	916
1947	725	742	1186	729	1998	2601	920	2427	1682	1252	1046	524
1948	579	617	623	1195	617	1239	4085	4144	4034	2376	1776	936
1949	741	719	907	719	880	1847	2507	2486	1706	1342	1626	930
1950	719	722	746	1839	4465	2537	3765	4026	2722	2310	1740	937
1951	727	8681	10794	5793	5112	2530	3015	3542	1706	1953	1706	912
1952	726	1158	4145	4368	7109	3684	7352	11922	8766	4121	2065	1115
1953	726	725	1031	7248	1727	1786	3159	3395	5890	2962	1882	982
1954	725	722	719	1889	3183	3742	4067	2517	1696	1243	1452	913
1955	720	722	803	1257	906	719	857	2393	1690	1362	1655	900
1956	618	620	15265	10872	4510	2423	2075	6325	4465	2607	1905	1066
1957	721	728	719	719	3850	3651	931	4235	2486	2287	1749	984
1958	721	728	1572	2418	9866	4582	6684	9050	6280	2642	1917	1289
1959	729	727	723	1382	2947	1055	849	2367	1628	1205	1014	511
1960	599	617	612	812	2824	3993	1295	2398	1671	1243	1056	667
1961	720	720	719	729	1184	1071	853	1982	1665	1222	1055	530
1962	618	615	617	617	5821	1786	3336	2398	1968	2234	1766	975
1963	5302	1063	3002	3111	8256	1664	5897	6802	2402	2497	1916	1110
1964	729	2306	917	1811	1274	735	931	2446	1700	1221	1248	952
1965	719	719	18077	9849	3312	1351	4532	4409	3516	2594	2016	1122
1966	719	719	1009	1687	1194	1599	2458	2395	1703	1227	1050	527
1967	719	876	3485	5295	3329	4229	2557	6946	8790	3659	2029	1074
1968	732	738	719	1461	5622	1990	911	2380	1676	1253	1075	522
1969	722	749	908	13203	5805	2548	4788	8921	5552	2616	1845	1024
1970	734	732	3952	17408	3946	2853	925	2411	1663	1227	1061	709
1971	725	1996	4172	3680	2523	4033	2598	5513	5240	3075	2014	1198
1972	726	722	1134	1786	2452	3057	1617	2534	1696	1326	1803	1128
1973	723	1485	2581	6663	5288	3123	2024	4474	1691	2129	1781	1149
1974	722	6620	5116	9328	2734	8723	5193	5022	3953	2934	1970	1061
1975	733	725	722	719	4021	4421	1889	5509	6232	2850	2017	1221
1976	954	1130	720	729	719	719	697	1342	1306	1150	991	500
1977	597	617	614	617	617	616	584	982	964	776	688	400
1978	522	614	806	3255	1454	5862	3870	3924	4188	2627	1910	1310
1979	722	722	719	904	2436	2813	1483	3862	1696	2061	1746	992
1980	725	865	1531	12610	9208	3359	2001	3233	2930	2604	1840	1014
1981	733	722	716	966	1576	1626	871	2442	1669	1243	1041	534
1982	592	5494	11311	5298	9906	5515	11654	7951	4056	2782	1923	1537
1983	813	2429	4896	4616	9268	12562	4325	7990	10511	5057	2218	1298
1984	727	6751	11468	4134	3494	3058	1163	3153	1981	2357	1814	1100
1985	722	1978	1192	821	1607	1000	1484	2401	1700	1235	1043	514
1986	724	722	719	2896	21639	9766	1996	2449	1698	2170	1757	1293
1987	736	727	727	719	1004	1407	810	1743	1405	926	806	442
1988	538	617	728	1045	1012	617	706	1381	1334	1205	1040	522
1989	613	863	627	659	754	10295	3326	2437	1681	1244	1434	1070
1990	972	732	721	1358	1191	1568	991	2367	1643	1216	1039	519
1991	607	617	611	616	617	1951	825	1969	1651	1215	1035	521
1992	608	620	612	616	617	1951	654	1354	1344	1208	1508	927
AVG.	767	1220	2384	2961	3713	3047	2752	3889	2942	1978	1525	870

Table C-10 Required Carryover Storage at New Bullards Bar
SWRCB INSTREAM FLOWS
Study: a) present level demand; b) current PG&E practice; c) SWRCB minimum flow; d) modified YRI

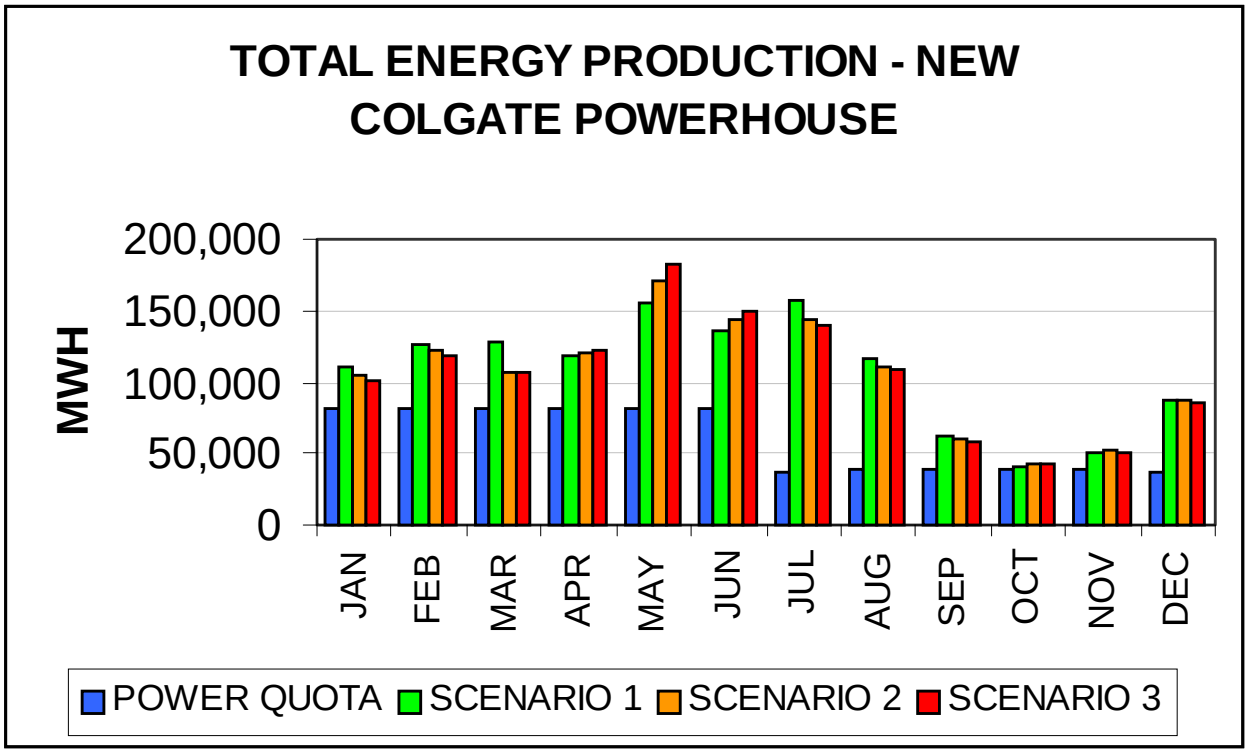
Year	ac-ft
1922	600000
1923	600000
1924	460000
1925	600000
1926	600000
1927	600000
1928	600000
1929	600000
1930	600000
1931	434000
1932	600000
1933	600000
1934	318000
1935	600000
1936	600000
1937	600000
1938	600000
1939	600000
1940	600000
1941	600000
1942	600000
1943	600000
1944	600000
1945	600000
1946	600000
1947	600000
1948	600000
1949	600000
1950	600000
1951	600000
1952	600000
1953	600000
1954	600000
1955	600000
1956	600000
1957	600000
1958	600000
1959	600000
1960	600000
1961	600000
1962	600000
1963	600000
1964	600000
1965	600000
1966	600000
1967	600000
1968	600000
1969	600000
1970	600000
1971	600000
1972	600000
1973	600000
1974	600000
1975	600000
1976	588000
1977	311000
1978	600000
1979	600000
1980	600000
1981	600000
1982	600000
1983	600000
1984	600000
1985	600000
1986	600000
1987	600000
1988	311000
1989	600000
1990	600000
1991	600000
1992	600000
AVG.	583408

APPENDIX 4

ENERGY PRODUCTION EVALUATION

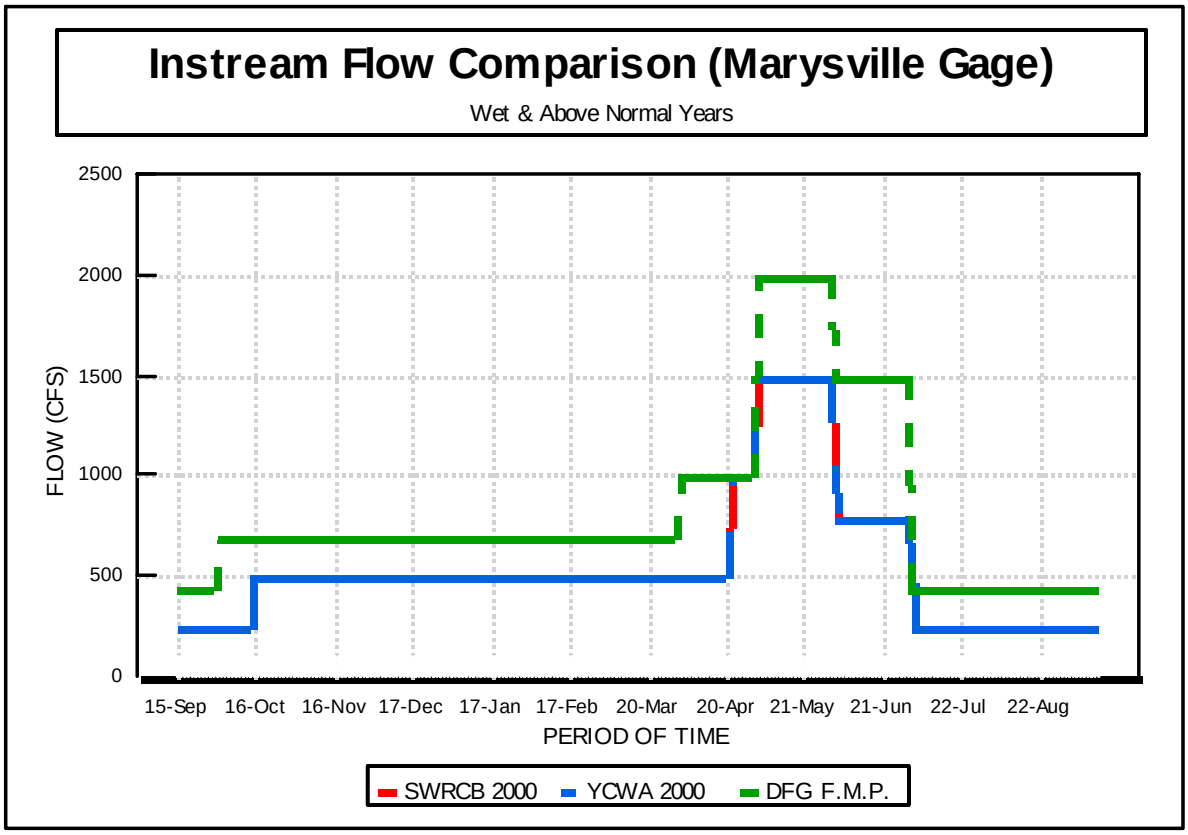
Total Energy Production - New Colgate Powerhouse
Comparative Summary

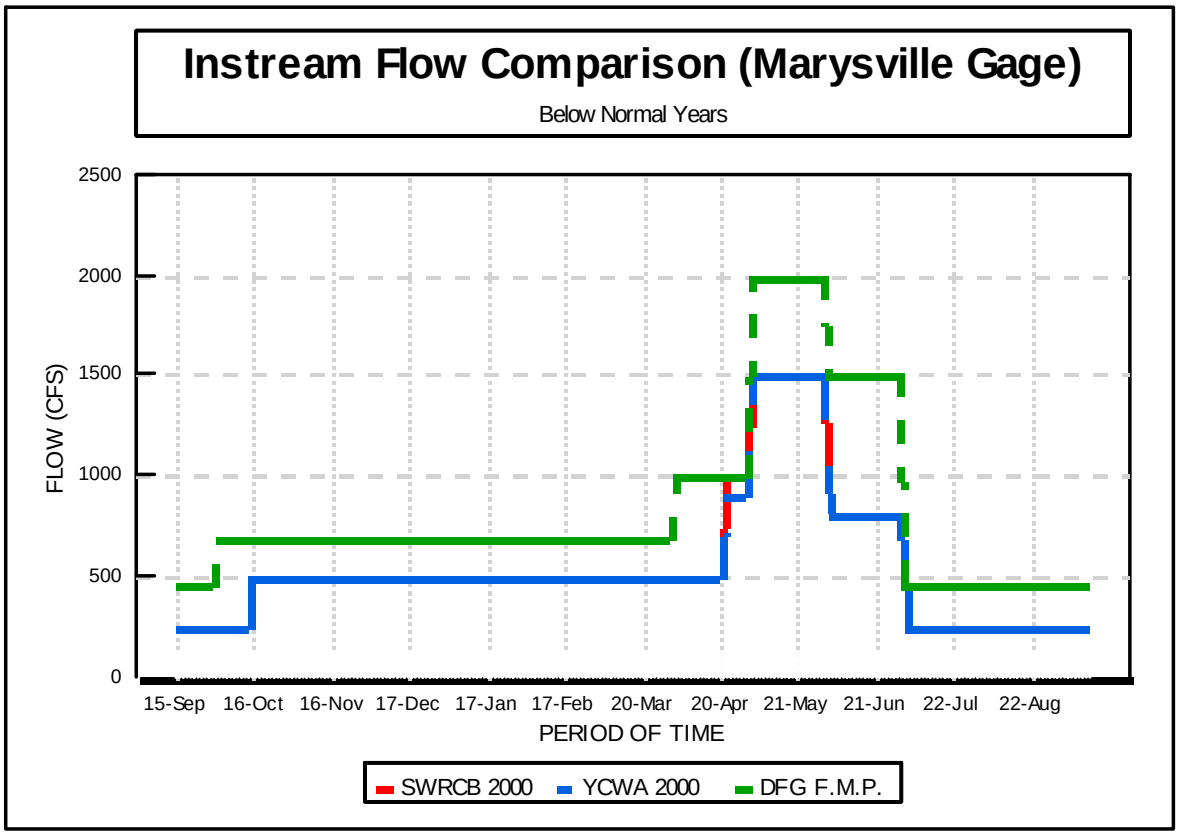
MONTH	MINIMUM QOUTA SCHEDULE (MWH)	SCENARIO 1 1965 YCWA/DFG AGREEMENT {period average} (MWH)	SCENARIO 2 YCWA PROPOSED INSTREAM FLOWS {period average} (MWH)	SCENARIO 3 SWRCB INSTREAM FLOWS {period average} (MWH)
January	81,700	111,581	104,360	~~99,535~~ 100,422
February	81,700	125,873	122,634	~~116,035~~ 117,789
March	81,500	128,097	107,669	~~106,522~~ 106,455
April	81,700	118,493	121,158	~~123,911~~ 123,125
May	82,000	155,709	171,817	~~190,836~~ 182,886
June	82,100	135,064	143,243	~~149,772~~ 149,858
July	37,700	156,323	143,486	~~137,211~~ 139,667
August	38,200	117,383	110,656	~~105,321~~ 108,049
September	38,900	62,423	59,297	~~56,275~~ 57,842
October	39,300	40,467	42,043	~~43,470~~ 42,714
November	39,500	49,916	52,245	~~52,023~~ 51,426
December	37,800	87,144	87,352	~~86,540~~ 86,226
TOTAL	722,100	1,290,439	1,265,962	~~1,267,454~~ 1,266,460

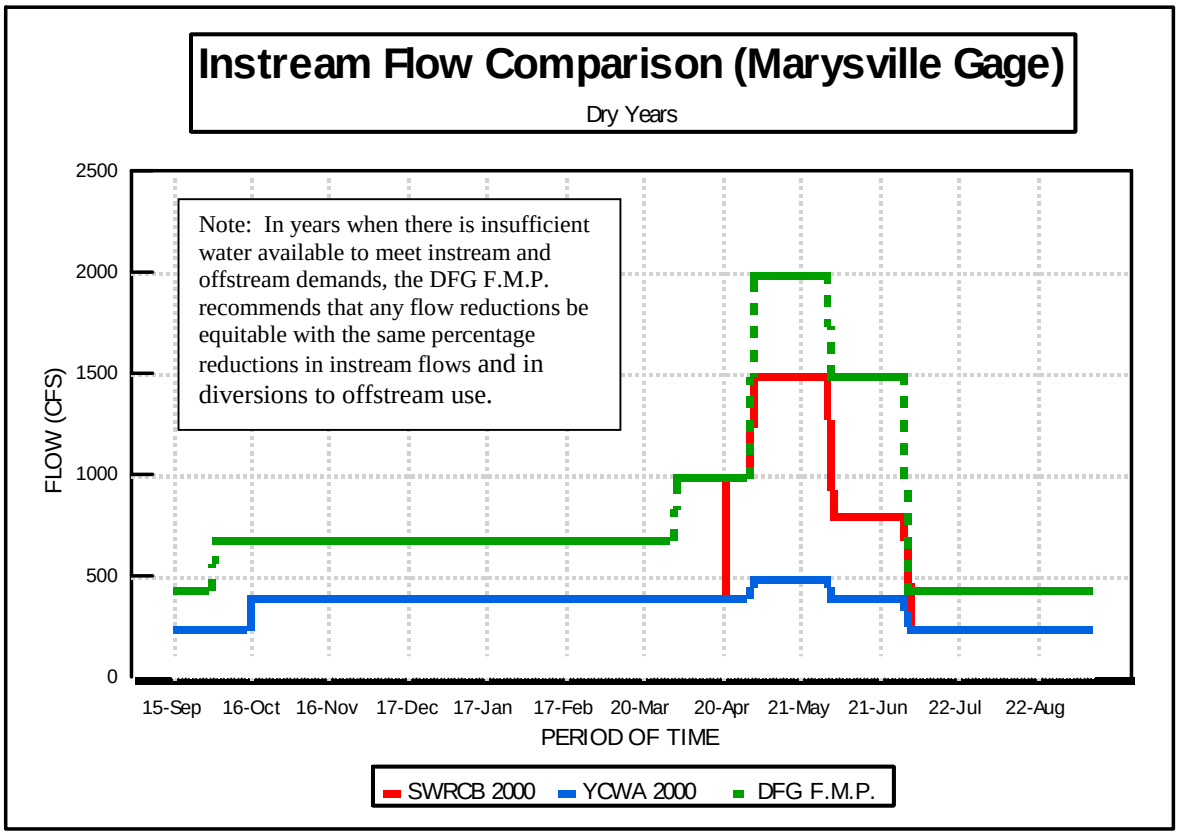


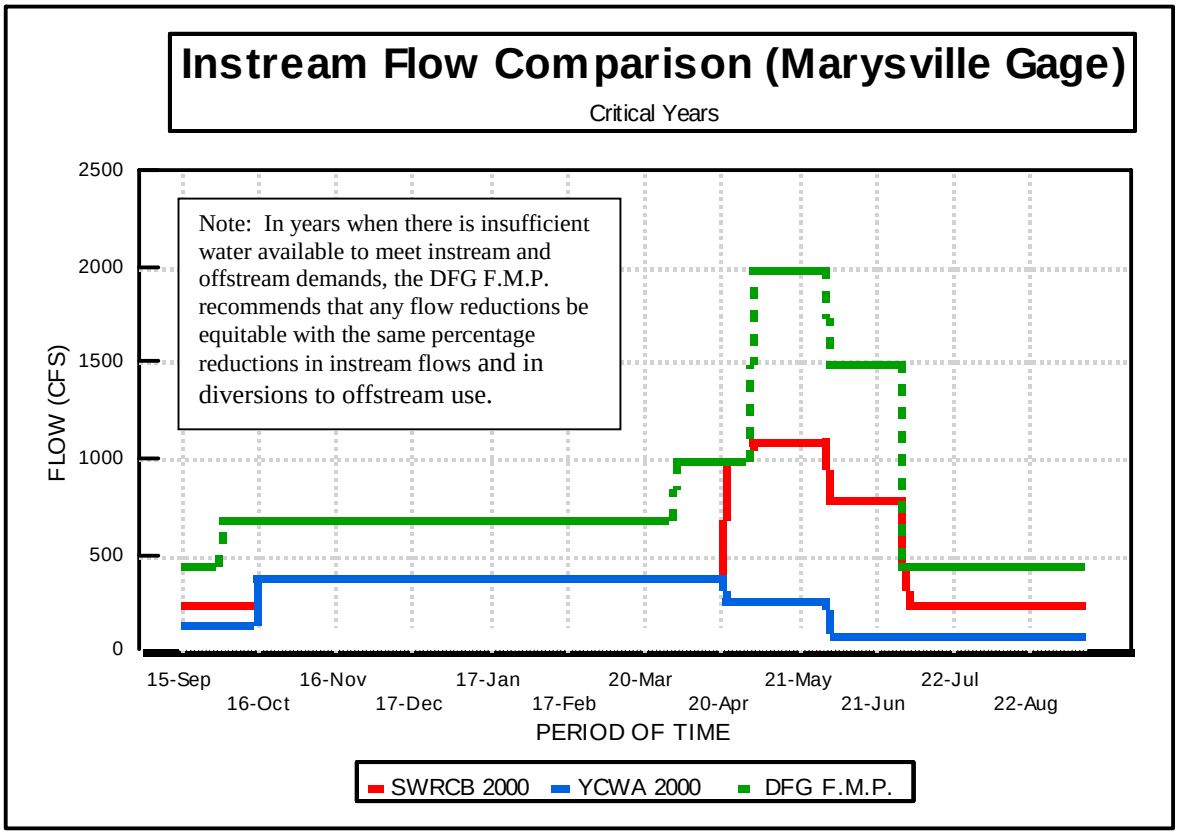
APPENDIX 5

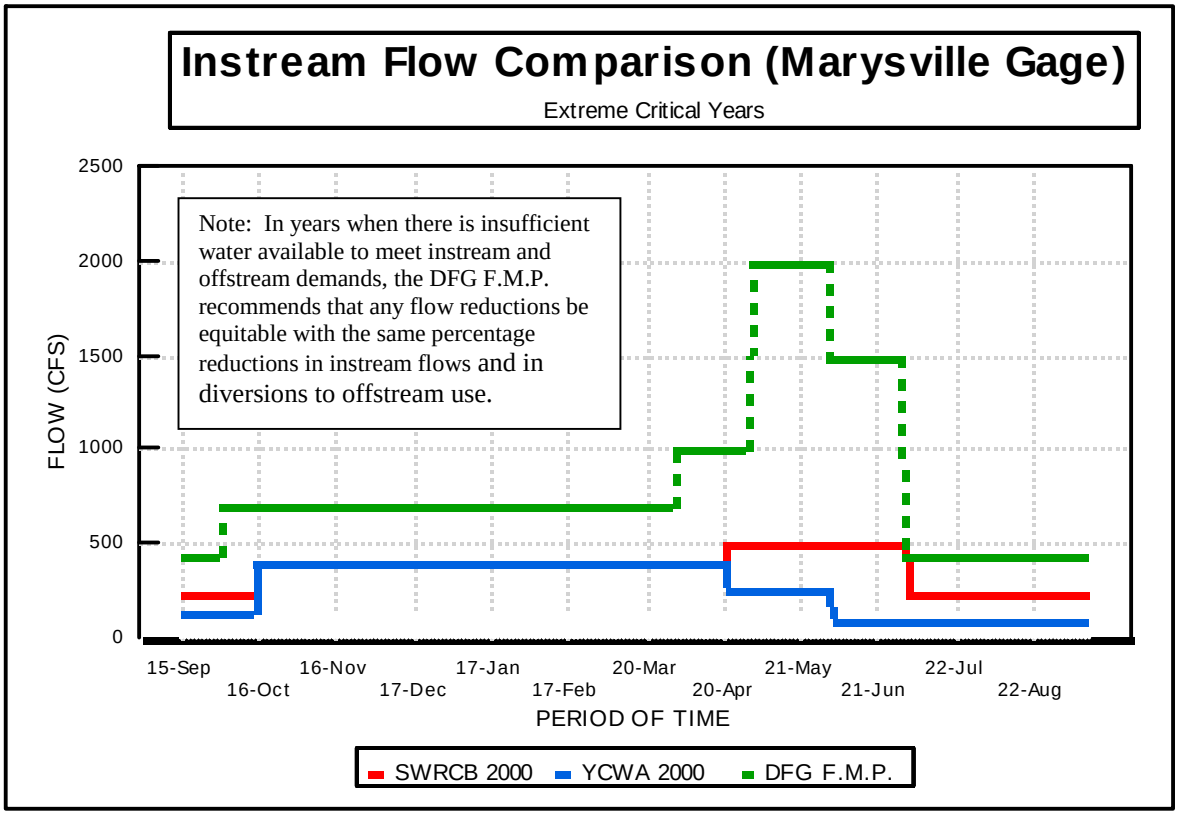
MINIMUM INSTREAM FLOW COMPARISON GRAPHS


Instream Flow Comparison (Marysville Gage)
Wet & Above Normal Years
FLOW (CFS)
2500
2000
1500
1000
500
0
15-Sep
16-Oct
16-Nov
17-Dec
17-Jan
17-Feb
20-Mar
20-Apr
21-May
21-Jun
22-Jul
22-Aug
PERIOD OF TIME
SWRCB 2000
YCWA 2000
DFG F.M.P.


Instream Flow Comparison (Marysville Gage)
Below Normal Years
FLOW (CFS)
2500
2000
1500
1000
500
0
15-Sep
16-Oct
16-Nov
17-Dec
17-Jan
17-Feb
20-Mar
20-Apr
21-May
21-Jun
22-Jul
22-Aug
PERIOD OF TIME
SWRCB 2000
YCWA 2000
DFG F.M.P.


Instream Flow Comparison (Marysville Gage)
Dry Years
Note: In years when there is insufficient water available to meet instream and offstream demands, the DFG F.M.P. recommends that any flow reductions be equitable with the same percentage reductions in instream flows and in diversions to offstream use.
FLOW (CFS)
2500
2000
1500
1000
500
0
15-Sep
16-Oct
16-Nov
17-Dec
17-Jan
17-Feb
20-Mar
20-Apr
21-May
21-Jun
22-Jul
22-Aug
PERIOD OF TIME
SWRCB 2000
YCWA 2000
DFG F.M.P.


Instream Flow Comparison (Marysville Gage)
Critical Years
Note: In years when there is insufficient water available to meet instream and offstream demands, the DFG F.M.P. recommends that any flow reductions be equitable with the same percentage reductions in instream flows and in diversions to offstream use.
FLOW (CFS)
2500
2000
1500
1000
500
0
15-Sep
16-Oct
16-Nov
17-Dec
17-Jan
17-Feb
20-Mar
20-Apr
21-May
21-Jun
22-Jul
22-Aug
PERIOD OF TIME
SWRCB 2000
YCWA 2000
DFG F.M.P.


Instream Flow Comparison (Marysville Gage)
Extreme Critical Years
Note: In years when there is insufficient water available to meet instream and offstream demands, the DFG F.M.P. recommends that any flow reductions be equitable with the same percentage reductions in instream flows and in diversions to offstream use.
FLOW (CFS)
2500
2000
1500
1000
500
0
15-Sep
16-Oct
16-Nov
17-Dec
17-Jan
17-Feb
20-Mar
20-Apr
21-May
21-Jun
22-Jul
22-Aug
PERIOD OF TIME
SWRCB 2000
YCWA 2000
DFG F.M.P.