

## Attachment: WSE Output

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This attachment contains resulting flow and reservoir storage for the CALSIM II baseline and WSE model results of the three LSJR alternatives. The baseline is presented first followed by each of the alternatives and the preferred alternative. Tables 1 through 6 contain the baseline results, tables 7 through 12 contain LSJR Alternative 2 (20% unimpaired flow),<sup>1</sup> Tables 13 through 18 contain LSJR Alternative 3 (40% unimpaired flow), and Tables 19 through 24 contain LSJR Alternative 4 (60% unimpaired flow). Flow results are presented for each tributary (Stanislaus, Tuolumne, and Merced Rivers) and the SJR at Vernalis. Storage results are presented for the three major reservoirs: New Melones, New Don Pedro, and New Exchequer (Lake McClure).

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<sup>1</sup> Any reference in this appendix to 20% unimpaired, 40% unimpaired, and 60% unimpaired is the same as LSJR Alternative 2, LSJR Alternative 3, and LSJR Alternative 4, respectively. Any reference to 1.0 EC objective and 1.4 EC objective is the same as SDWQ Alternative 2 and SDWQ Alternative 3, respectively.

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# Baseline

**Table 1. Baseline End-of-Month Storage at New Melones on the Stanislaus River in TAF from 19 22 through 2003**

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1922	W	954	964	994	1,019	1,128	1,205	1,168	1,363	1,611	1,574	1,494	1,445
1923	AN	1,384	1,397	1,462	1,524	1,572	1,509	1,514	1,597	1,591	1,543	1,455	1,421
1924	C	1,375	1,369	1,384	1,399	1,387	1,313	1,164	999	939	893	843	832
1925	BN	793	794	804	814	950	1,027	1,053	1,206	1,264	1,228	1,151	1,115
1926	D	1,061	1,052	1,055	1,057	1,109	1,088	1,118	1,038	968	887	814	779
1927	AN	733	745	793	834	971	1,021	1,099	1,206	1,255	1,198	1,125	1,096
1928	BN	1,075	1,106	1,127	1,141	1,187	1,352	1,343	1,386	1,339	1,255	1,174	1,140
1929	C	1,094	1,101	1,111	1,117	1,116	1,079	1,004	909	875	811	749	720
1930	C	671	658	656	673	687	724	698	652	656	590	524	490
1931	C	484	497	496	510	500	461	405	328	291	256	217	203
1932	AN	189	192	240	275	387	377	351	524	601	578	516	476
1933	D	457	443	447	459	449	431	405	398	447	414	381	369
1934	C	371	374	391	417	435	438	385	301	268	234	195	185
1935	AN	171	171	178	213	228	239	376	567	635	586	516	478
1936	AN	475	481	492	567	744	820	932	1,113	1,182	1,128	1,055	1,019
1937	W	977	967	976	995	1,093	1,195	1,219	1,399	1,433	1,367	1,292	1,251
1938	W	1,201	1,203	1,284	1,359	1,541	1,678	1,778	2,047	2,257	2,216	2,126	2,000
1939	D	1,950	1,934	1,936	1,946	1,955	1,977	1,824	1,627	1,554	1,474	1,398	1,372
1940	AN	1,310	1,294	1,300	1,400	1,534	1,630	1,697	1,782	1,756	1,660	1,569	1,517
1941	W	1,454	1,444	1,478	1,530	1,615	1,654	1,665	1,819	1,871	1,814	1,725	1,669
1942	W	1,612	1,604	1,647	1,737	1,814	1,791	1,834	1,969	2,102	2,062	1,961	1,907
1943	W	1,843	1,860	1,882	1,970	1,970	2,030	2,108	2,143	2,145	2,067	1,973	1,912
1944	BN	1,844	1,831	1,828	1,827	1,837	1,861	1,722	1,595	1,579	1,505	1,421	1,382
1945	AN	1,345	1,380	1,407	1,443	1,571	1,584	1,538	1,610	1,672	1,617	1,531	1,493
1946	AN	1,459	1,488	1,573	1,636	1,691	1,672	1,620	1,653	1,615	1,525	1,438	1,400
1947	D	1,351	1,368	1,389	1,404	1,422	1,380	1,288	1,194	1,158	1,094	1,034	1,008
1948	BN	987	983	982	985	953	942	920	942	1,059	1,008	941	910
1949	BN	877	873	882	889	882	906	846	865	867	804	743	709

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1950	BN	650	626	626	671	730	771	761	853	935	881	816	793
1951	AN	766	1,039	1,425	1,530	1,624	1,715	1,683	1,630	1,586	1,504	1,423	1,378
1952	W	1,325	1,339	1,391	1,530	1,620	1,656	1,690	1,985	2,167	2,154	2,066	2,000
1953	BN	1,918	1,918	1,933	1,970	1,970	1,915	1,763	1,607	1,665	1,620	1,539	1,497
1954	BN	1,438	1,440	1,453	1,468	1,475	1,512	1,449	1,470	1,447	1,376	1,306	1,269
1955	D	1,212	1,219	1,235	1,265	1,270	1,258	1,201	1,118	1,118	1,043	971	929
1956	W	874	880	1,125	1,385	1,503	1,504	1,482	1,604	1,709	1,664	1,578	1,549
1957	BN	1,487	1,484	1,498	1,517	1,548	1,571	1,419	1,383	1,444	1,377	1,309	1,272
1958	W	1,209	1,210	1,217	1,266	1,345	1,432	1,580	1,893	2,040	1,991	1,900	1,843
1959	D	1,771	1,766	1,775	1,801	1,855	1,874	1,706	1,494	1,434	1,361	1,289	1,288
1960	C	1,231	1,223	1,228	1,234	1,270	1,262	1,191	1,088	1,047	980	919	876
1961	C	806	821	835	840	831	805	764	710	653	594	535	505
1962	BN	474	475	476	484	566	601	622	660	716	672	602	559
1963	AN	547	549	566	621	734	727	762	949	1,009	967	898	875
1964	D	852	881	899	932	936	901	853	801	783	716	654	614
1965	W	609	626	838	1,043	1,151	1,208	1,263	1,308	1,375	1,353	1,299	1,264
1966	BN	1,198	1,231	1,263	1,301	1,334	1,356	1,283	1,252	1,189	1,113	1,045	1,002
1967	W	945	955	1,035	1,137	1,152	1,193	1,266	1,478	1,765	1,821	1,740	1,692
1968	D	1,622	1,630	1,639	1,662	1,718	1,763	1,627	1,480	1,429	1,350	1,275	1,233
1969	W	1,198	1,225	1,236	1,533	1,733	1,793	1,917	2,178	2,323	2,283	2,130	2,000
1970	AN	1,948	1,954	1,964	1,970	1,970	1,998	1,853	1,742	1,738	1,641	1,545	1,507
1971	BN	1,452	1,483	1,550	1,607	1,649	1,622	1,525	1,476	1,518	1,461	1,380	1,343
1972	D	1,284	1,302	1,350	1,386	1,395	1,360	1,264	1,256	1,222	1,156	1,091	1,064
1973	AN	1,028	1,034	1,060	1,172	1,316	1,432	1,419	1,508	1,534	1,455	1,373	1,338
1974	W	1,320	1,370	1,446	1,559	1,638	1,713	1,800	1,856	1,888	1,823	1,728	1,676
1975	W	1,634	1,643	1,666	1,693	1,757	1,807	1,758	1,679	1,808	1,741	1,663	1,618
1976	C	1,583	1,601	1,623	1,633	1,639	1,577	1,470	1,332	1,259	1,199	1,152	1,124
1977	C	1,087	1,088	1,086	1,077	1,042	976	900	831	800	743	684	665
1978	W	617	602	615	694	781	924	1,029	1,175	1,299	1,290	1,221	1,219
1979	AN	1,159	1,169	1,184	1,250	1,367	1,491	1,448	1,560	1,482	1,396	1,314	1,281

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1980	W	1,245	1,261	1,272	1,575	1,826	1,843	1,841	1,880	1,942	1,925	1,829	1,776
1981	D	1,720	1,704	1,714	1,753	1,757	1,799	1,693	1,537	1,453	1,373	1,304	1,281
1982	W	1,252	1,310	1,442	1,647	1,950	2,030	2,220	2,346	2,410	2,300	2,130	2,000
1983	W	1,955	1,965	1,964	1,970	1,970	2,030	2,063	2,207	2,420	2,300	2,130	2,000
1984	AN	1,955	1,965	1,964	1,970	1,970	1,976	1,860	1,785	1,752	1,676	1,601	1,570
1985	D	1,539	1,574	1,607	1,615	1,645	1,678	1,575	1,448	1,382	1,299	1,230	1,206
1986	W	1,176	1,187	1,203	1,282	1,755	2,029	2,037	2,058	2,080	1,986	1,899	1,868
1987	C	1,821	1,815	1,822	1,815	1,808	1,833	1,634	1,371	1,292	1,231	1,182	1,165
1988	C	1,114	1,099	1,091	1,095	1,077	1,027	974	900	856	816	774	743
1989	C	702	683	672	671	654	698	665	614	593	543	494	500
1990	C	521	524	539	552	545	519	475	417	380	341	317	310
1991	C	306	293	304	299	267	304	289	276	255	215	177	177
1992	C	177	170	185	193	240	252	231	155	115	80	80	80
1993	W	80	80	95	244	350	479	482	567	669	638	578	546
1994	C	552	571	600	629	634	582	544	507	464	415	371	353
1995	W	342	345	371	557	651	900	1,004	1,243	1,484	1,611	1,566	1,550
1996	W	1,513	1,510	1,542	1,621	1,812	1,922	1,906	2,014	2,010	1,919	1,838	1,794
1997	W	1,774	1,802	1,964	2,110	1,970	1,990	1,841	1,770	1,718	1,639	1,565	1,551
1998	W	1,504	1,522	1,551	1,665	1,869	1,942	1,955	2,038	2,268	2,300	2,130	2,000
1999	AN	1,955	1,961	1,964	1,970	1,970	1,990	1,929	1,850	1,836	1,754	1,680	1,650
2000	AN	1,609	1,603	1,615	1,666	1,772	1,798	1,731	1,656	1,620	1,529	1,457	1,438
2001	D	1,426	1,445	1,479	1,492	1,519	1,555	1,497	1,404	1,329	1,244	1,165	1,118
2002	D	1,060	1,060	1,094	1,138	1,138	1,160	1,091	1,013	948	876	811	785
2003	BN	745	759	806	854	858	847	804	791	771	708	650	620

**Table 2. Baseline Monthly Average Flow at Ripon on the Stanislaus River in cfs and February–June Flow Volume in TAF**

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Feb-Jun [TAF]
1922	W	980	260	311	335	303	382	1,821	1,458	528	377	439	436	270
1923	AN	1,207	444	493	356	235	1,426	1,641	1,697	1,345	511	456	493	383
1924	C	1,341	367	311	280	543	639	1,870	1,919	406	404	428	423	324
1925	BN	1,009	439	395	297	236	282	1,212	802	421	442	439	434	177
1926	D	1,066	369	311	267	441	709	737	1,099	451	454	439	434	206
1927	AN	1,007	505	338	314	235	647	1,121	986	1,325	426	439	434	259
1928	BN	1,076	431	387	295	227	481	1,098	1,251	436	441	439	434	211
1929	C	1,060	302	280	295	475	581	1,223	1,464	448	421	428	423	252
1930	C	993	313	250	308	489	590	679	579	432	435	428	423	165
1931	C	528	293	246	187	558	672	480	481	413	418	404	375	155
1932	AN	506	296	432	215	122	900	995	469	1,412	408	439	434	234
1933	D	537	356	291	220	505	534	548	760	454	434	367	386	167
1934	C	525	291	338	214	461	637	449	612	430	405	404	375	155
1935	AN	504	302	289	230	294	914	789	785	1,224	554	439	434	241
1936	AN	550	290	256	250	643	337	728	497	971	476	439	437	189
1937	W	1,012	356	353	314	263	488	1,038	750	940	476	439	434	208
1938	W	1,066	404	427	321	506	2,027	2,278	1,946	1,616	718	556	1,925	504
1939	D	1,396	547	471	420	367	238	2,434	2,522	439	438	439	449	361
1940	AN	1,204	266	225	371	241	1,616	1,788	1,991	1,103	511	456	486	408
1941	W	1,260	475	459	454	432	1,794	1,832	2,107	1,633	632	469	469	470
1942	W	1,272	678	474	323	574	1,885	2,104	1,782	1,295	785	594	642	460
1943	W	1,363	573	459	1,148	2,366	3,408	1,967	1,822	1,428	615	593	629	655
1944	BN	1,364	572	584	543	588	468	2,557	2,387	625	480	461	441	399
1945	AN	1,224	378	385	390	401	1,522	1,626	1,834	1,276	568	517	523	401
1946	AN	1,256	353	225	552	494	1,506	2,587	2,429	1,202	450	481	497	495
1947	D	1,212	343	347	404	376	787	1,399	1,405	471	437	393	394	267
1948	BN	1,026	432	383	362	878	668	1,102	1,040	593	506	439	404	256
1949	BN	980	367	355	318	577	315	1,135	1,059	521	455	409	380	215



YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Feb-Jun [TAF]
1950	BN	954	411	421	338	351	550	946	1,358	807	447	405	409	241
1951	AN	952	461	534	573	649	412	1,919	2,668	1,002	444	400	361	399
1952	W	1,105	331	272	312	229	1,603	1,967	1,702	1,699	887	639	781	435
1953	BN	1,347	525	514	759	1,166	1,515	3,057	3,315	1,248	616	451	480	618
1954	BN	1,239	342	333	351	513	483	1,805	1,996	438	436	393	356	314
1955	D	996	322	355	475	555	615	1,391	1,264	517	443	357	359	260
1956	W	1,005	381	370	762	562	1,561	2,266	1,960	1,361	613	484	463	465
1957	BN	1,212	325	312	342	529	595	2,517	2,381	598	449	439	431	398
1958	W	1,218	369	353	327	451	1,479	2,081	1,298	1,424	678	586	633	404
1959	D	1,302	450	493	434	368	475	2,684	2,591	467	422	401	435	396
1960	C	1,162	337	316	343	463	666	1,387	1,467	440	406	384	341	266
1961	C	920	354	356	326	652	691	634	600	410	361	382	312	178
1962	BN	421	373	377	210	255	294	628	858	423	451	411	403	148
1963	AN	522	393	353	258	722	1,305	797	1,083	1,527	498	451	437	325
1964	D	1,021	348	286	347	601	666	680	769	447	425	379	383	190
1965	W	495	388	250	369	142	314	1,672	2,451	1,345	436	513	479	357
1966	BN	1,248	374	351	386	467	388	1,624	1,564	455	440	361	350	270
1967	W	991	299	288	276	1,358	1,465	1,583	1,298	1,350	948	582	670	420
1968	D	1,424	351	379	380	451	371	2,386	2,451	446	431	386	371	368
1969	W	1,059	319	339	422	783	2,029	2,404	1,638	1,534	799	1,565	1,745	503
1970	AN	1,450	537	905	4,835	2,921	1,814	3,198	3,273	1,215	468	480	559	738
1971	BN	1,262	269	280	336	446	1,660	2,522	2,466	1,108	568	493	536	494
1972	D	1,440	248	200	349	585	1,157	1,455	1,425	457	448	378	368	306
1973	AN	992	391	397	304	463	295	1,519	1,834	1,094	448	452	503	312
1974	W	1,076	284	273	263	466	1,499	1,852	2,669	1,398	557	500	649	476
1975	W	1,354	370	478	349	236	1,625	2,141	3,208	1,595	589	582	603	533
1976	C	1,158	471	297	368	471	644	1,460	1,659	441	429	347	328	282
1977	C	957	324	313	286	704	651	692	733	337	303	355	241	185
1978	W	473	263	276	256	181	200	803	631	630	546	459	479	146

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Feb-Jun [TAF]
1979	AN	1,118	468	411	219	267	238	1,981	1,282	1,747	459	450	430	330
1980	W	1,201	372	250	226	721	1,787	2,420	2,058	1,616	690	646	756	518
1981	D	1,381	576	496	503	457	368	2,095	2,223	437	442	372	393	335
1982	W	1,056	294	322	381	254	3,151	2,907	1,724	1,303	1,679	1,967	3,096	564
1983	W	2,256	2,520	3,187	4,124	5,173	6,175	2,045	1,828	4,960	4,507	2,694	3,113	1,196
1984	AN	1,830	3,321	5,140	2,085	2,258	1,994	2,597	3,063	1,367	628	668	813	677
1985	D	1,419	471	356	461	569	416	2,247	2,210	470	437	380	460	355
1986	W	1,095	428	356	304	613	1,603	2,347	1,810	1,219	632	466	597	456
1987	C	1,353	501	601	483	517	370	2,977	3,163	435	415	355	309	449
1988	C	959	287	320	289	643	676	615	582	401	346	373	303	175
1989	C	483	339	358	186	612	657	647	718	383	357	384	410	180
1990	C	434	349	339	179	619	674	544	609	373	338	382	274	168
1991	C	524	530	311	202	683	313	499	557	379	343	381	245	144
1992	C	477	404	288	209	302	615	486	468	297	236	0	9	131
1993	W	103	126	265	351	160	598	1,286	1,324	388	288	368	434	227
1994	C	360	338	323	158	493	662	507	554	386	329	368	252	155
1995	W	394	300	314	541	218	1,560	1,528	1,423	1,105	418	418	397	352
1996	W	1,115	361	363	343	236	1,925	2,089	1,816	1,195	528	542	542	439
1997	W	1,198	655	966	8,185	6,255	2,075	3,032	2,607	1,056	452	421	421	879
1998	W	1,208	257	247	324	1,242	1,858	2,032	1,656	1,153	1,101	2,230	2,231	475
1999	AN	1,718	823	1,083	1,527	3,447	1,917	2,178	2,913	1,460	495	518	544	705
2000	AN	1,178	350	341	453	445	1,620	2,404	2,559	1,083	435	385	401	490
2001	D	1,100	264	243	308	397	311	1,210	1,344	436	412	301	313	222
2002	D	919	311	377	314	675	612	1,552	1,281	543	406	365	343	279
2003	BN	867	282	311	243	771	854	1,277	1,146	1,205	435	337	307	314

**Table 3. Baseline End-of-Month Storage at New Don Pedro on the Tuolumne River in TAF from 1922–2003**

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1922	W	954	964	994	1,019	1,128	1,205	1,168	1,363	1,611	1,574	1,494	1,445
1923	AN	1,384	1,397	1,462	1,524	1,572	1,509	1,514	1,597	1,591	1,543	1,455	1,421
1924	C	1,375	1,369	1,384	1,399	1,387	1,313	1,164	999	939	893	843	832
1925	BN	793	794	804	814	950	1,027	1,053	1,206	1,264	1,228	1,151	1,115
1926	D	1,061	1,052	1,055	1,057	1,109	1,088	1,118	1,038	968	887	814	779
1927	AN	733	745	793	834	971	1,021	1,099	1,206	1,255	1,198	1,125	1,096
1928	BN	1,075	1,106	1,127	1,141	1,187	1,352	1,343	1,386	1,339	1,255	1,174	1,140
1929	C	1,094	1,101	1,111	1,117	1,116	1,079	1,004	909	875	811	749	720
1930	C	671	658	656	673	687	724	698	652	656	590	524	490
1931	C	484	497	496	510	500	461	405	328	291	256	217	203
1932	AN	189	192	240	275	387	377	351	524	601	578	516	476
1933	D	457	443	447	459	449	431	405	398	447	414	381	369
1934	C	371	374	391	417	435	438	385	301	268	234	195	185
1935	AN	171	171	178	213	228	239	376	567	635	586	516	478
1936	AN	475	481	492	567	744	820	932	1,113	1,182	1,128	1,055	1,019
1937	W	977	967	976	995	1,093	1,195	1,219	1,399	1,433	1,367	1,292	1,251
1938	W	1,201	1,203	1,284	1,359	1,541	1,678	1,778	2,047	2,257	2,216	2,126	2,000
1939	D	1,950	1,934	1,936	1,946	1,955	1,977	1,824	1,627	1,554	1,474	1,398	1,372
1940	AN	1,310	1,294	1,300	1,400	1,534	1,630	1,697	1,782	1,756	1,660	1,569	1,517
1941	W	1,454	1,444	1,478	1,530	1,615	1,654	1,665	1,819	1,871	1,814	1,725	1,669
1942	W	1,612	1,604	1,647	1,737	1,814	1,791	1,834	1,969	2,102	2,062	1,961	1,907
1943	W	1,843	1,860	1,882	1,970	1,970	2,030	2,108	2,143	2,145	2,067	1,973	1,912
1944	BN	1,844	1,831	1,828	1,827	1,837	1,861	1,722	1,595	1,579	1,505	1,421	1,382
1945	AN	1,345	1,380	1,407	1,443	1,571	1,584	1,538	1,610	1,672	1,617	1,531	1,493
1946	AN	1,459	1,488	1,573	1,636	1,691	1,672	1,620	1,653	1,615	1,525	1,438	1,400
1947	D	1,351	1,368	1,389	1,404	1,422	1,380	1,288	1,194	1,158	1,094	1,034	1,008
1948	BN	987	983	982	985	953	942	920	942	1,059	1,008	941	910
1949	BN	877	873	882	889	882	906	846	865	867	804	743	709
1950	BN	650	626	626	671	730	771	761	853	935	881	816	793

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1951	AN	766	1,039	1,425	1,530	1,624	1,715	1,683	1,630	1,586	1,504	1,423	1,378
1952	W	1,325	1,339	1,391	1,530	1,620	1,656	1,690	1,985	2,167	2,154	2,066	2,000
1953	BN	1,918	1,918	1,933	1,970	1,970	1,915	1,763	1,607	1,665	1,620	1,539	1,497
1954	BN	1,438	1,440	1,453	1,468	1,475	1,512	1,449	1,470	1,447	1,376	1,306	1,269
1955	D	1,212	1,219	1,235	1,265	1,270	1,258	1,201	1,118	1,118	1,043	971	929
1956	W	874	880	1,125	1,385	1,503	1,504	1,482	1,604	1,709	1,664	1,578	1,549
1957	BN	1,487	1,484	1,498	1,517	1,548	1,571	1,419	1,383	1,444	1,377	1,309	1,272
1958	W	1,209	1,210	1,217	1,266	1,345	1,432	1,580	1,893	2,040	1,991	1,900	1,843
1959	D	1,771	1,766	1,775	1,801	1,855	1,874	1,706	1,494	1,434	1,361	1,289	1,288
1960	C	1,231	1,223	1,228	1,234	1,270	1,262	1,191	1,088	1,047	980	919	876
1961	C	806	821	835	840	831	805	764	710	653	594	535	505
1962	BN	474	475	476	484	566	601	622	660	716	672	602	559
1963	AN	547	549	566	621	734	727	762	949	1,009	967	898	875
1964	D	852	881	899	932	936	901	853	801	783	716	654	614
1965	W	609	626	838	1,043	1,151	1,208	1,263	1,308	1,375	1,353	1,299	1,264
1966	BN	1,198	1,231	1,263	1,301	1,334	1,356	1,283	1,252	1,189	1,113	1,045	1,002
1967	W	945	955	1,035	1,137	1,152	1,193	1,266	1,478	1,765	1,821	1,740	1,692
1968	D	1,622	1,630	1,639	1,662	1,718	1,763	1,627	1,480	1,429	1,350	1,275	1,233
1969	W	1,198	1,225	1,236	1,533	1,733	1,793	1,917	2,178	2,323	2,283	2,130	2,000
1970	AN	1,948	1,954	1,964	1,970	1,970	1,998	1,853	1,742	1,738	1,641	1,545	1,507
1971	BN	1,452	1,483	1,550	1,607	1,649	1,622	1,525	1,476	1,518	1,461	1,380	1,343
1972	D	1,284	1,302	1,350	1,386	1,395	1,360	1,264	1,256	1,222	1,156	1,091	1,064
1973	AN	1,028	1,034	1,060	1,172	1,316	1,432	1,419	1,508	1,534	1,455	1,373	1,338
1974	W	1,320	1,370	1,446	1,559	1,638	1,713	1,800	1,856	1,888	1,823	1,728	1,676
1975	W	1,634	1,643	1,666	1,693	1,757	1,807	1,758	1,679	1,808	1,741	1,663	1,618
1976	C	1,583	1,601	1,623	1,633	1,639	1,577	1,470	1,332	1,259	1,199	1,152	1,124
1977	C	1,087	1,088	1,086	1,077	1,042	976	900	831	800	743	684	665
1978	W	617	602	615	694	781	924	1,029	1,175	1,299	1,290	1,221	1,219
1979	AN	1,159	1,169	1,184	1,250	1,367	1,491	1,448	1,560	1,482	1,396	1,314	1,281
1980	W	1,245	1,261	1,272	1,575	1,826	1,843	1,841	1,880	1,942	1,925	1,829	1,776

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1981	D	1,720	1,704	1,714	1,753	1,757	1,799	1,693	1,537	1,453	1,373	1,304	1,281
1982	W	1,252	1,310	1,442	1,647	1,950	2,030	2,220	2,346	2,410	2,300	2,130	2,000
1983	W	1,955	1,965	1,964	1,970	1,970	2,030	2,063	2,207	2,420	2,300	2,130	2,000
1984	AN	1,955	1,965	1,964	1,970	1,970	1,976	1,860	1,785	1,752	1,676	1,601	1,570
1985	D	1,539	1,574	1,607	1,615	1,645	1,678	1,575	1,448	1,382	1,299	1,230	1,206
1986	W	1,176	1,187	1,203	1,282	1,755	2,029	2,037	2,058	2,080	1,986	1,899	1,868
1987	C	1,821	1,815	1,822	1,815	1,808	1,833	1,634	1,371	1,292	1,231	1,182	1,165
1988	C	1,114	1,099	1,091	1,095	1,077	1,027	974	900	856	816	774	743
1989	C	702	683	672	671	654	698	665	614	593	543	494	500
1990	C	521	524	539	552	545	519	475	417	380	341	317	310
1991	C	306	293	304	299	267	304	289	276	255	215	177	177
1992	C	177	170	185	193	240	252	231	155	115	80	80	80
1993	W	80	80	95	244	350	479	482	567	669	638	578	546
1994	C	552	571	600	629	634	582	544	507	464	415	371	353
1995	W	342	345	371	557	651	900	1,004	1,243	1,484	1,611	1,566	1,550
1996	W	1,513	1,510	1,542	1,621	1,812	1,922	1,906	2,014	2,010	1,919	1,838	1,794
1997	W	1,774	1,802	1,964	2,110	1,970	1,990	1,841	1,770	1,718	1,639	1,565	1,551
1998	W	1,504	1,522	1,551	1,665	1,869	1,942	1,955	2,038	2,268	2,300	2,130	2,000
1999	AN	1,955	1,961	1,964	1,970	1,970	1,990	1,929	1,850	1,836	1,754	1,680	1,650
2000	AN	1,609	1,603	1,615	1,666	1,772	1,798	1,731	1,656	1,620	1,529	1,457	1,438
2001	D	1,426	1,445	1,479	1,492	1,519	1,555	1,497	1,404	1,329	1,244	1,165	1,118
2002	D	1,060	1,060	1,094	1,138	1,138	1,160	1,091	1,013	948	876	811	785
2003	BN	745	759	806	854	858	847	804	791	771	708	650	620

**Table 4. Baseline Monthly Average Flow at Modesto on the Tuolumne River in cfs and February–June Flow Volume in TAF**

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Feb-Jun [TAF]
1922	W	719	602	597	603	683	631	3,297	1,667	8,518	1,913	566	579	882
1923	AN	719	595	823	1,978	1,957	841	2,985	1,362	608	575	566	587	458
1924	C	732	605	580	579	606	584	527	523	342	331	342	353	155
1925	BN	428	442	440	427	454	473	1,642	1,755	470	380	389	408	288
1926	D	547	500	476	464	484	482	906	1,011	391	379	389	405	196
1927	AN	479	449	452	456	519	517	1,479	1,380	697	556	568	582	275
1928	BN	733	615	613	601	621	2,964	1,415	1,090	404	378	388	410	393
1929	C	547	495	477	468	498	474	742	808	349	333	341	363	171
1930	C	459	466	438	436	473	448	743	876	372	344	351	368	174
1931	C	457	453	449	437	465	440	532	527	345	334	344	354	138
1932	AN	424	437	430	427	525	463	1,424	1,417	697	577	568	578	272
1933	D	736	630	591	582	612	599	906	871	425	384	393	414	204
1934	C	482	471	451	434	461	442	530	523	347	331	341	353	137
1935	AN	435	445	437	436	468	429	1,544	1,665	707	562	565	587	289
1936	AN	733	609	597	593	674	3,470	3,274	1,433	660	611	565	582	574
1937	W	732	621	600	590	3,782	4,503	3,444	1,476	640	555	566	586	821
1938	W	732	618	1,922	1,613	7,111	7,817	5,429	5,416	4,410	3,684	572	597	1,794
1939	D	931	650	602	593	874	1,397	956	958	394	384	397	412	274
1940	AN	482	470	440	434	519	3,543	3,792	1,118	744	625	514	528	586
1941	W	640	526	755	1,268	5,011	4,925	4,499	1,205	1,276	2,545	618	547	999
1942	W	689	574	648	3,278	3,434	2,720	4,174	4,351	2,608	3,292	735	704	1,029
1943	W	814	641	627	3,422	3,255	6,231	3,720	1,494	1,999	1,073	501	436	996
1944	BN	753	584	626	650	763	983	1,519	1,280	490	414	405	359	303
1945	AN	526	453	389	529	2,133	3,969	2,435	1,496	536	688	634	572	631
1946	AN	684	466	3,746	2,702	3,020	3,174	1,992	1,794	782	637	600	580	638
1947	D	660	576	675	615	606	625	796	738	357	322	352	345	186
1948	BN	480	454	398	393	415	428	952	1,166	663	489	407	344	218
1949	BN	519	468	412	519	487	742	851	896	384	354	359	343	201

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Feb-Jun [TAF]
1950	BN	525	475	463	686	427	519	1,463	1,153	559	395	379	370	247
1951	AN	513	206	4,395	3,760	3,719	2,865	2,454	1,665	364	422	399	370	653
1952	W	461	400	475	846	643	3,807	4,598	5,070	4,408	3,733	617	591	1,119
1953	BN	680	479	517	734	1,275	642	1,950	1,774	334	519	433	400	355
1954	BN	460	400	391	397	383	459	1,097	1,064	439	373	379	369	206
1955	D	468	385	420	702	365	481	845	794	368	338	352	341	171
1956	W	395	372	441	6,886	4,167	3,171	2,249	1,464	3,372	2,933	681	574	859
1957	BN	697	478	491	518	551	616	1,970	1,812	393	399	408	405	320
1958	W	489	380	432	561	844	3,498	6,198	4,879	5,075	2,724	672	646	1,233
1959	D	753	519	581	624	964	1,299	981	957	362	349	333	366	272
1960	C	461	364	307	362	519	435	686	807	282	275	295	321	164
1961	C	310	330	282	337	346	385	465	436	246	236	256	235	112
1962	BN	298	314	323	314	941	510	1,942	1,903	370	358	396	408	338
1963	AN	464	273	315	425	493	245	1,626	1,291	485	527	500	515	247
1964	D	548	381	400	518	493	516	721	806	275	256	268	280	169
1965	W	343	266	234	2,740	3,543	3,038	3,135	1,314	361	543	565	717	672
1966	BN	585	491	2,109	1,104	2,041	1,097	836	861	251	246	242	242	298
1967	W	389	267	318	582	285	1,341	4,504	3,901	6,478	6,505	589	674	992
1968	D	645	449	485	515	484	894	1,068	901	347	350	338	330	222
1969	W	398	367	288	1,118	5,455	3,900	5,096	6,796	7,535	3,812	459	508	1,712
1970	AN	1,216	761	1,146	5,995	2,584	3,073	1,550	1,433	296	432	360	426	530
1971	BN	673	503	532	524	456	1,075	1,633	1,544	367	333	350	358	305
1972	D	515	322	524	367	345	387	803	738	284	276	286	284	154
1973	AN	315	451	522	524	826	593	1,623	1,368	1,010	484	509	512	323
1974	W	560	745	2,027	2,864	1,754	3,806	2,617	1,511	3,148	1,039	475	657	767
1975	W	1,068	1,088	789	643	2,318	3,655	2,337	1,628	2,700	1,262	558	569	753
1976	C	1,352	812	584	543	516	584	613	574	260	245	278	280	153
1977	C	284	309	322	295	303	305	383	398	176	170	167	153	93
1978	W	217	243	251	432	550	578	1,424	1,394	2,832	415	446	436	405

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Feb-Jun [TAF]
1979	AN	393	710	611	1,045	3,655	4,273	2,032	5,620	490	547	625	516	961
1980	W	609	813	877	3,071	6,760	3,798	2,383	2,097	5,065	3,500	567	697	1,195
1981	D	743	775	519	693	579	779	917	973	316	321	348	341	213
1982	W	439	421	600	685	6,677	5,622	9,183	6,364	4,838	3,679	592	2,367	1,942
1983	W	3,175	3,152	5,340	5,281	6,724	16,125	5,060	7,883	4,323	6,266	2,862	2,081	2,408
1984	AN	941	5,485	7,476	4,168	3,409	3,125	1,600	1,628	598	558	597	599	619
1985	D	743	974	430	489	609	658	865	1,077	408	340	367	359	216
1986	W	334	363	356	284	2,249	8,056	2,904	3,247	3,686	648	541	662	1,212
1987	C	1,169	1,300	566	596	523	708	620	710	276	256	265	253	170
1988	C	242	259	254	305	265	293	455	462	184	175	190	177	100
1989	C	194	220	245	244	243	340	575	574	188	187	203	212	115
1990	C	215	245	232	236	275	271	431	502	195	199	221	212	100
1991	C	214	239	223	208	232	449	491	600	170	183	201	188	117
1992	C	210	239	217	224	485	307	381	450	178	169	175	175	108
1993	W	213	208	217	781	481	305	1,126	1,319	4,064	2,059	326	404	435
1994	C	581	448	413	399	490	410	522	503	207	188	201	186	127
1995	W	230	218	223	518	152	7,988	4,702	9,501	5,103	8,341	1,781	792	1,667
1996	W	758	451	430	538	5,666	4,888	2,802	2,648	3,078	794	483	533	1,139
1997	W	592	525	6,295	17,735	3,718	2,811	1,491	1,371	482	499	486	486	581
1998	W	693	337	431	900	6,931	5,095	3,854	5,548	6,995	6,737	517	560	1,685
1999	AN	962	506	695	2,008	4,999	3,672	2,004	1,308	498	497	501	506	733
2000	AN	591	442	344	433	3,617	3,718	2,271	1,590	1,489	488	691	721	758
2001	D	692	465	418	518	400	1,207	798	713	326	293	314	300	207
2002	D	322	243	383	427	242	325	630	896	276	279	326	296	142
2003	BN	315	247	294	264	241	297	1,069	1,062	244	228	283	269	175



**Table 5. Baseline End-of-Month Storage at New Exchequer on the Merced River in TAF from 1922–2003**

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1922	W	469	456	483	506	647	735	805	970	1,024	910	770	700
1923	AN	662	662	675	675	675	690	780	938	968	905	770	700
1924	C	662	654	646	641	639	609	574	548	445	330	236	193
1925	BN	173	178	184	189	275	316	399	560	584	506	420	377
1926	D	353	345	340	334	380	388	473	437	404	350	288	246
1927	AN	217	205	210	199	223	259	283	449	520	492	473	489
1928	BN	497	493	505	519	532	538	509	564	547	512	486	490
1929	C	471	458	445	434	435	433	400	387	359	330	310	276
1930	C	246	232	218	207	195	158	152	172	198	197	185	174
1931	C	146	138	127	121	126	124	171	226	207	171	141	128
1932	AN	110	99	161	194	336	389	422	591	714	652	560	513
1933	D	481	467	456	456	455	457	428	452	521	424	323	279
1934	C	252	238	240	257	288	309	318	304	268	195	137	112
1935	AN	98	104	111	176	213	274	498	695	824	738	640	593
1936	AN	568	561	552	576	675	735	845	945	987	909	770	700
1937	W	662	651	654	662	675	735	839	970	1,024	910	770	700
1938	W	662	652	675	675	675	735	845	970	1,024	910	770	700
1939	D	662	666	668	666	675	702	724	706	621	509	408	373
1940	AN	358	346	336	447	570	702	830	955	976	875	770	700
1941	W	662	650	675	675	675	735	845	970	1,024	910	770	700
1942	W	662	661	675	675	675	733	845	970	1,024	910	770	700
1943	W	662	675	675	675	675	735	845	969	1,003	910	770	700
1944	BN	662	650	642	645	675	728	697	825	842	760	664	616
1945	AN	586	604	620	628	675	735	793	938	1,021	910	770	700
1946	AN	662	675	675	675	675	720	777	923	919	829	735	692
1947	D	662	675	675	675	675	693	700	751	684	573	472	427
1948	BN	408	402	393	389	383	375	403	542	642	554	456	407
1949	BN	380	365	357	351	357	401	437	565	556	450	353	309

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1950	BN	275	264	253	275	322	341	423	536	547	444	345	302
1951	AN	279	520	675	675	675	733	773	850	841	746	648	600
1952	W	573	565	608	675	675	735	845	970	1,024	910	770	700
1953	BN	662	653	665	675	675	676	689	691	737	660	560	514
1954	BN	481	469	459	462	492	562	633	746	707	600	493	447
1955	D	411	398	399	411	418	410	397	499	520	419	318	275
1956	W	241	227	595	675	675	735	805	970	1,024	910	770	700
1957	BN	662	656	649	647	671	681	660	753	811	712	612	562
1958	W	542	533	539	556	627	735	845	970	1,024	910	770	700
1959	D	662	649	636	642	675	682	684	668	600	483	380	368
1960	C	340	324	310	302	342	359	387	425	375	265	168	124
1961	C	99	90	89	81	84	94	166	226	231	192	157	143
1962	BN	121	108	102	96	243	287	399	496	573	504	409	360
1963	AN	334	319	308	333	489	520	559	704	796	737	647	602
1964	D	582	602	606	611	612	592	557	595	564	457	358	313
1965	W	292	294	501	568	609	639	724	838	948	910	770	700
1966	BN	662	675	675	675	675	704	749	800	728	619	523	483
1967	W	454	450	546	590	627	735	845	970	1,024	910	770	700
1968	D	662	653	649	651	675	682	649	653	588	470	371	328
1969	W	307	314	336	669	675	735	845	970	1,024	910	770	700
1970	AN	662	666	675	675	675	735	716	809	817	725	630	586
1971	BN	560	563	598	631	653	670	650	727	791	713	623	579
1972	D	552	543	566	575	596	617	607	665	647	538	443	413
1973	AN	398	393	410	462	575	671	734	964	1,024	910	770	700
1974	W	662	675	675	675	675	735	811	957	1,024	910	770	700
1975	W	662	653	652	663	675	735	744	919	1,024	910	770	700
1976	C	662	667	665	655	656	630	579	554	455	336	248	223
1977	C	198	180	165	152	137	102	93	108	134	120	107	103
1978	W	86	70	87	184	316	492	712	970	1,024	910	770	700
1979	AN	662	663	657	675	675	735	781	970	993	899	770	700

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1980	W	662	653	652	675	675	735	817	958	1,024	910	770	700
1981	D	662	642	631	633	641	663	676	714	662	554	459	416
1982	W	398	426	472	586	675	735	845	970	1,024	910	770	700
1983	W	662	675	675	675	675	735	818	970	1,024	910	770	700
1984	AN	649	675	675	675	675	735	749	894	890	812	724	681
1985	D	662	669	673	675	675	696	726	774	714	605	508	467
1986	W	445	442	456	483	675	735	845	970	1,024	910	770	700
1987	C	662	644	630	620	623	631	618	612	527	415	322	281
1988	C	257	254	248	258	263	262	294	316	287	219	156	130
1989	C	103	92	90	83	92	168	252	311	288	216	159	146
1990	C	136	130	121	120	124	149	216	255	236	191	148	129
1991	C	109	95	81	67	56	132	178	266	316	256	197	171
1992	C	153	146	138	134	180	205	279	307	254	208	155	140
1993	W	118	108	111	282	367	501	641	946	1,024	910	770	700
1994	C	662	648	638	631	643	644	643	672	612	495	401	358
1995	W	345	349	356	541	597	735	845	970	1,024	910	770	700
1996	W	662	648	658	675	675	735	838	970	1,002	910	770	700
1997	W	662	675	675	675	675	735	783	925	925	833	743	699
1998	W	662	654	652	675	675	735	845	970	1,024	910	770	700
1999	AN	662	662	674	675	675	699	713	853	883	784	686	639
2000	AN	603	593	581	621	675	735	803	952	958	847	745	699
2001	D	662	652	645	641	654	713	745	841	750	635	535	504
2002	D	475	469	500	525	543	567	607	693	659	542	441	397
2003	BN	364	378	393	417	434	463	499	669	714	609	517	469

**Table 6. Baseline Monthly Average Flow at Stevinson on the Merced River in cfs and February–June Flow Volume in TAF**

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Feb-Jun [TAF]
1922	W	292	368	486	482	879	748	28	1,251	3,357	1,387	867	453	373
1923	AN	469	304	962	1,270	1,017	261	359	533	582	159	762	598	161
1924	C	593	385	382	396	320	273	239	171	29	54	36	49	62
1925	BN	282	419	425	428	689	421	922	533	214	116	77	54	165
1926	D	266	354	375	375	336	271	506	393	61	51	37	51	93
1927	AN	274	322	313	381	441	280	338	276	166	136	84	89	89
1928	BN	426	352	389	361	493	341	667	649	271	179	88	80	145
1929	C	296	387	387	408	435	328	638	129	129	49	54	92	98
1930	C	276	367	359	361	375	303	558	317	31	35	35	93	94
1931	C	276	385	372	382	408	292	89	98	82	87	41	75	57
1932	AN	266	363	475	469	691	383	483	20	94	109	57	58	99
1933	D	310	386	383	426	371	337	549	178	78	60	41	30	90
1934	C	298	383	405	466	469	311	453	216	113	85	36	29	92
1935	AN	282	389	409	580	428	587	703	369	230	182	100	55	138
1936	AN	368	410	385	428	2,896	665	811	1,508	132	108	807	441	356
1937	W	707	424	417	416	4,208	1,251	311	2,281	562	597	812	446	503
1938	W	442	401	2,035	1,341	4,928	4,767	1,521	3,341	4,530	2,238	1,159	596	1,132
1939	D	833	397	383	443	509	453	849	488	135	67	73	68	145
1940	AN	331	424	418	573	489	280	419	1,461	236	145	188	416	174
1941	W	459	427	1,286	1,340	3,119	1,858	842	3,103	2,347	1,749	1,069	508	668
1942	W	718	447	1,183	1,528	1,720	517	522	1,180	2,978	1,651	1,021	509	408
1943	W	494	549	783	2,172	1,974	3,163	910	1,046	435	534	941	490	448
1944	BN	475	459	436	414	532	345	902	343	391	172	136	88	150
1945	AN	357	489	446	441	2,769	834	714	603	148	878	937	421	293
1946	AN	840	640	1,862	1,067	829	469	741	562	303	170	129	81	172
1947	D	577	532	963	621	869	323	385	286	147	65	80	76	117
1948	BN	319	397	398	388	299	313	634	274	197	182	100	97	103
1949	BN	348	404	386	402	394	359	514	215	263	121	121	70	103

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Feb-Jun [TAF]
1950	BN	326	394	394	428	403	390	449	194	329	162	130	77	105
1951	AN	329	402	1,941	1,733	1,641	454	703	167	308	186	116	63	189
1952	W	347	417	460	1,986	1,317	1,922	1,245	3,703	3,081	1,943	1,231	621	679
1953	BN	450	428	334	1,080	727	358	784	513	190	140	126	55	152
1954	BN	360	405	403	406	439	277	692	329	277	167	131	81	119
1955	D	314	392	409	537	442	338	261	240	146	120	113	55	84
1956	W	311	386	133	3,072	1,983	498	840	1,104	2,383	1,954	1,152	610	404
1957	BN	580	422	409	411	406	364	674	501	332	195	154	81	136
1958	W	424	381	405	481	721	1,322	2,986	3,555	2,730	1,720	1,123	675	680
1959	D	483	395	382	395	564	335	875	547	172	107	116	94	148
1960	C	307	374	383	397	451	343	635	315	164	101	127	49	114
1961	C	286	365	387	372	395	321	166	200	143	70	55	40	72
1962	BN	264	341	359	360	681	975	788	314	446	253	182	78	190
1963	AN	346	362	376	376	410	467	960	682	454	277	194	158	178
1964	D	411	397	398	404	316	320	639	227	197	163	114	77	102
1965	W	346	356	528	1,780	497	355	527	748	444	309	1,448	634	153
1966	BN	474	866	812	1,055	724	346	692	636	257	206	165	79	157
1967	W	293	366	400	408	424	904	1,756	2,666	4,147	4,063	1,494	797	594
1968	D	747	411	330	382	500	358	1,036	509	249	196	177	130	158
1969	W	275	431	434	903	4,093	1,534	2,098	5,555	4,141	2,433	1,233	711	1,035
1970	AN	825	320	444	2,940	1,265	917	986	657	329	256	222	150	245
1971	BN	383	375	359	425	384	331	921	646	314	256	188	102	155
1972	D	359	386	423	270	340	263	408	365	281	240	222	18	99
1973	AN	309	412	432	474	889	652	640	1,091	639	600	1,038	574	233
1974	W	815	776	1,095	1,690	870	1,126	716	1,521	587	841	1,054	586	289
1975	W	667	350	409	307	2,026	1,073	793	680	2,074	1,163	1,062	533	391
1976	C	1,107	357	362	392	370	291	655	355	255	175	205	136	115
1977	C	354	311	322	373	253	234	561	281	173	106	81	44	89
1978	W	268	282	350	516	824	582	219	566	4,016	2,613	1,294	1,369	368

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Feb-Jun [TAF]
1979	AN	509	579	441	1,541	1,932	1,485	901	973	355	262	731	443	333
1980	W	698	374	392	3,976	4,525	1,490	621	940	2,019	2,284	1,248	583	567
1981	D	629	398	444	479	452	479	751	512	240	168	168	97	145
1982	W	401	405	414	484	2,088	2,297	4,921	3,385	1,922	2,249	1,390	1,170	873
1983	W	1,344	1,754	2,298	3,657	4,416	6,069	1,408	2,947	7,343	5,943	2,444	1,100	1,320
1984	AN	1,196	1,802	3,551	1,903	1,596	512	782	546	328	291	277	217	223
1985	D	580	338	334	488	759	371	721	459	274	236	206	100	152
1986	W	405	395	408	380	3,244	4,143	921	1,748	1,415	946	1,113	737	681
1987	C	558	416	418	381	380	393	648	218	183	130	135	87	108
1988	C	356	340	375	377	305	246	349	347	201	97	92	52	87
1989	C	256	274	322	304	310	339	165	41	142	68	62	67	59
1990	C	305	303	327	310	346	205	110	181	146	72	68	26	58
1991	C	248	258	274	292	205	359	200	168	146	91	54	10	64
1992	C	270	289	297	291	352	298	201	139	139	76	55	11	67
1993	W	206	313	350	684	449	438	9	63	1,702	1,492	1,085	640	158
1994	C	739	369	334	315	381	186	306	131	142	48	54	2	67
1995	W	239	327	317	611	386	3,613	1,035	3,031	5,130	4,891	1,700	509	797
1996	W	474	379	365	844	3,009	1,633	792	1,719	290	374	903	480	444
1997	W	613	845	3,494	9,912	2,144	1,191	830	639	240	149	114	84	295
1998	W	369	336	356	1,396	5,205	2,115	1,235	1,064	5,045	4,614	1,499	759	858
1999	AN	741	382	296	820	2,026	362	743	800	292	174	196	100	246
2000	AN	285	345	318	325	2,186	1,137	807	851	242	175	112	59	310
2001	D	668	496	392	389	391	365	356	275	244	74	84	25	97
2002	D	239	403	390	449	307	249	517	219	172	90	61	2	87
2003	BN	227	316	353	327	287	241	181	262	160	80	66	41	67

## **LSJR Alternative 2 (20% Unimpaired Flow)**

**Table 7. LSJR Alternative 2 End-of-Month Storage at New Melones on the Stanislaus River in TAF from 1922–2003**

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1922	W	954	964	994	1,027	1,131	1,197	1,237	1,429	1,631	1,595	1,519	1,470
1923	AN	1,400	1,409	1,474	1,536	1,566	1,558	1,598	1,712	1,742	1,680	1,580	1,524
1924	C	1,454	1,447	1,457	1,469	1,432	1,348	1,252	1,137	1,028	923	821	776
1925	BN	708	703	711	720	838	905	951	1,077	1,132	1,103	1,035	1,003
1926	D	945	941	945	948	993	997	1,032	1,005	937	849	771	729
1927	AN	679	687	735	777	894	957	1,058	1,181	1,264	1,211	1,145	1,119
1928	BN	1,068	1,094	1,115	1,131	1,146	1,286	1,316	1,399	1,356	1,262	1,174	1,129
1929	C	1,073	1,075	1,083	1,088	1,060	1,015	974	932	875	789	710	665
1930	C	611	607	604	621	617	664	677	654	664	603	542	505
1931	C	488	497	495	508	474	426	396	321	263	208	151	124
1932	AN	96	97	146	181	275	311	342	500	630	633	600	576
1933	D	563	560	566	581	542	502	485	475	488	428	373	340
1934	C	324	331	347	372	371	383	353	271	226	175	124	97
1935	AN	70	67	76	112	118	164	284	487	610	593	555	533
1936	AN	514	523	537	615	788	852	963	1,126	1,221	1,178	1,117	1,085
1937	W	1,035	1,037	1,047	1,067	1,157	1,250	1,286	1,441	1,491	1,418	1,339	1,295
1938	W	1,238	1,238	1,318	1,393	1,567	1,762	1,920	2,204	2,420	2,300	2,130	1,998
1939	D	1,926	1,915	1,916	1,925	1,900	1,873	1,846	1,764	1,668	1,562	1,463	1,400
1940	AN	1,326	1,317	1,321	1,419	1,530	1,655	1,764	1,913	1,925	1,830	1,738	1,682
1941	W	1,612	1,610	1,643	1,694	1,779	1,876	1,921	2,115	2,215	2,154	2,059	1,998
1942	W	1,926	1,921	1,962	1,970	1,970	2,028	2,096	2,245	2,385	2,300	2,130	2,000
1943	W	1,928	1,938	1,959	1,970	1,970	2,030	2,135	2,227	2,268	2,182	2,079	2,000
1944	BN	1,921	1,910	1,905	1,903	1,892	1,914	1,862	1,825	1,801	1,703	1,598	1,534
1945	AN	1,464	1,493	1,518	1,552	1,664	1,732	1,735	1,855	1,934	1,867	1,769	1,714
1946	AN	1,644	1,666	1,750	1,812	1,846	1,861	1,920	2,035	2,036	1,938	1,842	1,789
1947	D	1,719	1,736	1,755	1,768	1,753	1,748	1,722	1,655	1,587	1,479	1,381	1,331
1948	BN	1,274	1,264	1,261	1,262	1,230	1,203	1,212	1,215	1,304	1,237	1,158	1,116
1949	BN	1,061	1,065	1,073	1,078	1,054	1,068	1,072	1,099	1,097	1,018	945	903
1950	BN	843	828	827	873	928	962	978	1,100	1,191	1,133	1,069	1,032



YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1951	AN	978	1,247	1,634	1,739	1,844	1,933	1,957	2,023	2,000	1,899	1,801	1,744
1952	W	1,672	1,680	1,730	1,867	1,946	2,030	2,091	2,376	2,420	2,300	2,130	2,000
1953	BN	1,914	1,908	1,921	1,957	1,952	1,938	1,930	1,936	2,004	1,945	1,846	1,786
1954	BN	1,711	1,716	1,727	1,741	1,744	1,789	1,790	1,870	1,824	1,721	1,623	1,565
1955	D	1,504	1,504	1,519	1,547	1,533	1,509	1,471	1,407	1,385	1,284	1,190	1,131
1956	W	1,072	1,071	1,314	1,572	1,700	1,784	1,852	2,012	2,134	2,084	1,990	1,943
1957	BN	1,865	1,870	1,883	1,900	1,914	1,940	1,899	1,923	1,956	1,859	1,767	1,701
1958	W	1,602	1,609	1,614	1,662	1,739	1,864	2,023	2,279	2,420	2,300	2,130	2,000
1959	D	1,926	1,928	1,936	1,960	1,970	1,950	1,926	1,833	1,761	1,659	1,562	1,510
1960	C	1,434	1,431	1,434	1,438	1,458	1,473	1,461	1,403	1,341	1,237	1,143	1,075
1961	C	988	995	1,006	1,008	980	947	936	884	817	732	650	605
1962	BN	574	570	571	579	657	701	729	800	852	817	759	719
1963	AN	699	708	726	782	892	931	972	1,157	1,269	1,232	1,169	1,140
1964	D	1,088	1,114	1,133	1,166	1,154	1,128	1,110	1,072	1,039	952	875	821
1965	W	790	802	1,013	1,218	1,311	1,355	1,465	1,610	1,703	1,673	1,601	1,561
1966	BN	1,490	1,518	1,549	1,586	1,583	1,579	1,568	1,590	1,502	1,393	1,298	1,233
1967	W	1,172	1,175	1,254	1,354	1,415	1,501	1,603	1,796	2,062	2,127	2,049	2,000
1968	D	1,926	1,928	1,937	1,958	1,970	1,963	1,928	1,893	1,826	1,717	1,613	1,545
1969	W	1,487	1,507	1,516	1,811	1,970	2,030	2,213	2,420	2,420	2,300	2,130	1,985
1970	AN	1,913	1,912	1,921	1,925	1,970	2,030	2,020	2,067	2,091	1,984	1,876	1,820
1971	BN	1,750	1,774	1,839	1,895	1,920	1,935	1,942	1,990	2,038	1,961	1,861	1,803
1972	D	1,725	1,738	1,784	1,819	1,820	1,859	1,815	1,832	1,770	1,662	1,561	1,508
1973	AN	1,452	1,451	1,475	1,584	1,725	1,815	1,840	1,958	1,998	1,897	1,797	1,748
1974	W	1,690	1,730	1,804	1,917	1,961	2,030	2,153	2,300	2,343	2,260	2,130	2,000
1975	W	1,930	1,939	1,960	1,970	1,970	2,030	2,023	2,065	2,216	2,142	2,042	1,981
1976	C	1,910	1,928	1,947	1,954	1,940	1,894	1,802	1,707	1,579	1,463	1,358	1,292
1977	C	1,222	1,214	1,207	1,194	1,154	1,096	1,009	901	830	715	605	548
1978	W	492	473	485	563	640	742	827	955	1,071	1,075	1,021	1,015
1979	AN	961	968	985	1,052	1,161	1,264	1,306	1,434	1,433	1,343	1,262	1,223
1980	W	1,167	1,178	1,189	1,493	1,731	1,820	1,918	2,024	2,101	2,072	1,973	1,913

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1981	D	1,855	1,847	1,856	1,893	1,867	1,868	1,852	1,792	1,697	1,588	1,494	1,447
1982	W	1,389	1,441	1,570	1,774	1,970	2,030	2,220	2,366	2,420	2,300	2,125	1,957
1983	W	1,876	1,879	1,877	1,881	1,970	2,030	2,102	2,245	2,420	2,298	2,120	1,951
1984	AN	1,891	1,894	1,892	1,896	1,970	2,030	2,050	2,110	2,116	2,026	1,936	1,886
1985	D	1,819	1,845	1,877	1,883	1,885	1,900	1,893	1,864	1,777	1,667	1,576	1,532
1986	W	1,482	1,485	1,500	1,577	1,970	2,030	2,108	2,183	2,233	2,138	2,046	2,000
1987	C	1,932	1,932	1,936	1,926	1,891	1,871	1,794	1,663	1,548	1,446	1,361	1,316
1988	C	1,236	1,214	1,201	1,201	1,173	1,137	1,090	1,015	948	869	795	742
1989	C	698	674	662	661	642	700	703	690	680	636	594	581
1990	C	583	585	600	613	596	604	580	521	473	409	363	338
1991	C	310	301	312	307	280	317	328	320	289	238	190	182
1992	C	165	163	178	187	222	230	222	169	130	91	55	50
1993	W	40	39	56	207	301	415	468	580	648	645	614	598
1994	C	601	619	651	682	664	628	600	540	486	409	340	305
1995	W	278	278	305	490	577	831	972	1,215	1,452	1,610	1,593	1,591
1996	W	1,563	1,573	1,608	1,688	1,835	2,010	2,058	2,172	2,184	2,094	2,009	1,959
1997	W	1,910	1,932	1,970	1,970	1,970	2,030	2,045	2,090	2,063	1,969	1,878	1,844
1998	W	1,791	1,802	1,830	1,942	1,970	2,030	2,095	2,148	2,333	2,300	2,124	1,987
1999	AN	1,912	1,912	1,913	1,917	1,970	2,030	2,065	2,094	2,116	2,026	1,941	1,895
2000	AN	1,852	1,851	1,861	1,911	1,970	2,030	2,042	2,036	2,016	1,919	1,839	1,804
2001	D	1,750	1,766	1,798	1,809	1,817	1,832	1,803	1,745	1,636	1,521	1,417	1,354
2002	D	1,286	1,279	1,311	1,353	1,356	1,397	1,389	1,346	1,274	1,177	1,093	1,052
2003	BN	1,007	1,015	1,062	1,109	1,118	1,138	1,143	1,143	1,150	1,077	1,009	974

**Table 8. LSJR Alternative 2 Monthly Average Flow at Ripon on the Stanislaus River in cfs and February–June Flow Volume in TAF**

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Feb-Jun [TAF]
1922	W	1,377	443	447	335	385	335	571	1,610	1,357	377	439	436	256
1923	AN	1,207	444	493	356	514	774	696	1,158	541	511	456	493	221
1924	C	1,341	367	311	280	1,010	1,067	913	555	345	404	428	423	233
1925	BN	1,009	439	395	297	551	390	877	1,158	578	442	439	434	212
1926	D	1,066	369	311	267	555	625	726	452	327	454	439	434	160
1927	AN	1,007	505	338	314	583	436	897	1,080	823	426	439	434	228
1928	BN	1,076	431	387	295	724	823	719	781	233	441	439	434	197
1929	C	1,060	302	280	295	944	804	775	638	329	421	428	423	207
1930	C	993	313	250	308	822	518	618	550	447	435	428	423	175
1931	C	528	293	246	187	973	963	313	299	405	418	404	375	174
1932	AN	506	296	432	215	459	381	686	1,252	1,005	408	439	434	227
1933	D	537	356	291	220	1,026	944	617	579	692	434	367	386	229
1934	C	525	291	338	214	790	595	384	548	332	405	404	375	157
1935	AN	504	302	289	230	503	288	1,059	1,233	837	554	439	434	234
1936	AN	550	290	256	250	716	501	968	1,080	649	476	439	437	235
1937	W	1,012	356	353	314	396	403	645	1,337	561	476	439	434	201
1938	W	1,066	404	427	321	634	781	1,022	1,808	1,558	2,071	1,877	1,925	348
1939	D	1,396	547	471	420	941	837	602	451	455	438	439	449	194
1940	AN	1,204	266	225	371	602	859	864	1,125	521	511	456	486	239
1941	W	1,260	475	459	454	389	524	618	1,408	783	632	469	469	224
1942	W	1,271	678	474	1,639	1,914	342	837	1,151	1,086	1,443	1,614	1,779	313
1943	W	1,363	573	459	2,366	2,310	3,074	1,028	904	660	615	593	784	473
1944	BN	1,364	572	584	543	894	515	970	842	413	480	461	441	217
1945	AN	1,224	378	385	390	659	316	699	1,083	773	568	517	523	210
1946	AN	1,256	353	225	552	817	728	800	995	454	450	481	497	226
1947	D	1,212	343	347	404	1,053	815	557	592	315	437	393	394	197
1948	BN	1,026	432	383	362	961	925	524	1,028	830	506	439	404	256
1949	BN	980	367	355	318	994	597	652	901	387	455	409	380	209

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Feb-Jun [TAF]
1950	BN	954	411	421	338	393	726	857	1,103	652	447	405	409	224
1951	AN	952	461	534	573	407	413	943	680	383	444	400	361	169
1952	W	1,105	331	272	312	369	768	1,123	1,919	3,897	2,446	1,837	1,709	485
1953	BN	1,347	525	514	759	1,198	1,037	702	625	776	616	451	480	257
1954	BN	1,239	342	333	351	679	472	887	849	302	436	393	356	190
1955	D	996	322	355	475	846	909	766	745	497	443	357	359	224
1956	W	1,005	381	370	762	355	394	723	1,288	1,019	613	484	463	227
1957	BN	1,212	325	312	342	774	738	881	914	635	449	439	431	235
1958	W	1,218	369	353	327	421	559	948	1,847	1,445	1,800	1,806	1,719	314
1959	D	1,302	450	493	434	1,105	1,157	566	533	231	422	401	435	213
1960	C	1,162	337	316	343	708	664	541	511	239	406	384	341	159
1961	C	920	354	356	326	937	925	363	390	192	361	382	312	166
1962	BN	421	373	377	210	342	247	911	816	692	451	411	403	180
1963	AN	522	393	353	258	778	418	524	1,356	736	498	451	437	227
1964	D	1,021	348	286	347	947	1,011	694	595	356	425	379	383	216
1965	W	495	388	250	369	371	626	800	995	823	436	513	479	217
1966	BN	1,248	374	351	386	1,079	883	689	543	405	440	361	350	213
1967	W	991	299	288	276	473	638	592	1,604	1,650	948	582	670	297
1968	D	1,424	351	379	380	1,249	948	842	524	283	431	386	371	229
1969	W	1,059	319	339	422	1,478	1,983	1,163	2,609	3,903	2,004	1,721	1,745	666
1970	AN	1,450	537	905	4,835	2,061	1,251	1,025	829	578	468	480	559	338
1971	BN	1,262	269	280	336	678	1,007	779	777	702	568	493	536	236
1972	D	1,440	248	200	349	720	491	790	764	255	448	378	368	181
1973	AN	992	391	397	304	461	410	709	1,356	565	448	452	503	210
1974	W	1,076	284	273	263	1,037	1,392	830	1,210	1,048	557	926	1,812	329
1975	W	1,354	370	478	593	1,343	1,134	1,271	1,304	1,116	589	582	603	367
1976	C	1,157	471	297	368	889	1,037	1,106	461	507	429	347	328	239
1977	C	957	324	313	286	816	772	827	672	150	303	355	241	192
1978	W	473	263	275	256	389	725	877	1,278	1,015	546	459	479	257

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Feb-Jun [TAF]
1979	AN	1,118	468	411	219	389	520	711	1,252	477	459	450	430	201
1980	W	1,201	372	250	226	894	442	679	1,044	1,357	690	646	756	264
1981	D	1,381	576	496	503	941	778	564	537	192	442	372	393	178
1982	W	1,056	294	322	381	2,124	3,156	2,318	1,434	1,355	1,801	1,967	3,096	619
1983	W	2,256	2,519	3,187	4,124	3,524	5,846	716	1,639	5,543	4,507	2,693	3,113	1,028
1984	AN	1,830	3,321	5,140	2,085	922	1,171	528	966	497	628	668	813	245
1985	D	1,419	471	356	461	1,024	622	692	556	387	437	380	460	194
1986	W	1,095	428	356	304	1,995	4,778	850	976	723	632	466	698	558
1987	C	1,353	501	601	483	958	786	970	748	429	415	355	309	231
1988	C	958	287	320	289	763	646	359	270	191	346	373	303	133
1989	C	483	339	358	186	690	589	786	527	316	357	384	410	173
1990	C	434	349	339	179	785	470	450	283	171	338	382	274	127
1991	C	524	530	311	202	675	263	326	595	356	343	381	245	131
1992	C	477	404	288	209	503	579	457	309	216	236	185	9	124
1993	W	103	126	265	351	389	761	837	1,324	1,355	288	368	434	280
1994	C	360	338	323	158	901	688	356	517	150	329	368	252	154
1995	W	394	300	314	541	360	1,350	928	1,574	1,546	418	418	397	347
1996	W	1,115	361	363	343	960	699	857	1,226	878	528	542	542	277
1997	W	1,198	655	2,957	10,528	3,675	1,665	605	751	370	452	421	421	411
1998	W	1,208	257	247	324	4,354	1,849	823	1,109	1,718	2,128	2,230	2,231	575
1999	AN	1,718	823	1,083	1,527	2,440	1,166	581	1,203	723	495	518	544	359
2000	AN	1,178	350	341	453	1,202	926	746	950	430	435	385	401	254
2001	D	1,100	264	243	308	702	312	450	651	543	412	301	313	157
2002	D	919	311	377	314	572	339	716	703	326	406	365	343	158
2003	BN	867	282	311	243	647	462	521	1,057	608	435	337	307	197

**Table 9. LSJR Alternative 2 End-of-Month Storage at New Don Pedro on the Tuolumne River in TAF from 1922–2003**

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1922	W	1,314	1,300	1,325	1,364	1,550	1,687	1,718	1,930	2,030	1,935	1,806	1,740
1923	AN	1,689	1,690	1,690	1,690	1,690	1,690	1,718	1,787	1,851	1,764	1,604	1,530
1924	C	1,472	1,459	1,447	1,426	1,449	1,454	1,424	1,326	1,197	1,044	909	841
1925	BN	807	819	881	923	1,084	1,182	1,350	1,500	1,645	1,614	1,533	1,500
1926	D	1,471	1,467	1,474	1,475	1,554	1,646	1,718	1,723	1,631	1,468	1,329	1,263
1927	AN	1,218	1,255	1,299	1,336	1,497	1,592	1,705	1,856	2,030	1,972	1,846	1,773
1928	BN	1,690	1,690	1,690	1,690	1,690	1,690	1,718	1,870	1,813	1,628	1,469	1,390
1929	C	1,328	1,317	1,312	1,296	1,321	1,352	1,367	1,345	1,377	1,244	1,124	1,058
1930	C	1,014	1,003	1,042	1,064	1,123	1,188	1,209	1,225	1,298	1,200	1,110	1,067
1931	C	1,037	1,039	1,077	1,080	1,129	1,138	1,097	1,017	928	808	711	671
1932	AN	638	631	809	952	1,183	1,319	1,401	1,498	1,621	1,639	1,560	1,521
1933	D	1,477	1,459	1,463	1,455	1,501	1,526	1,568	1,567	1,564	1,437	1,312	1,251
1934	C	1,201	1,193	1,214	1,248	1,320	1,427	1,419	1,353	1,269	1,131	1,018	968
1935	AN	935	946	984	1,148	1,285	1,387	1,594	1,690	1,854	1,783	1,675	1,617
1936	AN	1,572	1,566	1,560	1,619	1,690	1,690	1,718	1,802	1,944	1,829	1,668	1,582
1937	W	1,515	1,499	1,494	1,487	1,690	1,690	1,718	1,788	1,952	1,821	1,678	1,602
1938	W	1,545	1,537	1,689	1,688	1,690	1,690	1,718	1,936	2,030	1,901	1,751	1,672
1939	D	1,613	1,615	1,628	1,627	1,678	1,690	1,712	1,678	1,554	1,373	1,222	1,154
1940	AN	1,127	1,124	1,189	1,341	1,593	1,690	1,718	1,799	1,943	1,796	1,665	1,594
1941	W	1,542	1,532	1,636	1,690	1,690	1,690	1,718	1,745	1,938	1,805	1,642	1,556
1942	W	1,489	1,482	1,564	1,560	1,690	1,690	1,718	1,912	2,030	1,915	1,766	1,683
1943	W	1,619	1,654	1,690	1,690	1,690	1,690	1,718	1,926	2,030	1,897	1,735	1,645
1944	BN	1,582	1,570	1,559	1,550	1,638	1,690	1,702	1,771	1,787	1,658	1,515	1,441
1945	AN	1,391	1,437	1,482	1,507	1,690	1,690	1,718	1,762	1,922	1,860	1,709	1,623
1946	AN	1,596	1,627	1,646	1,645	1,690	1,690	1,718	1,736	1,784	1,602	1,435	1,349
1947	D	1,288	1,305	1,336	1,346	1,400	1,451	1,452	1,530	1,462	1,315	1,187	1,127
1948	BN	1,104	1,104	1,141	1,149	1,157	1,245	1,342	1,412	1,523	1,443	1,339	1,292
1949	BN	1,255	1,248	1,246	1,238	1,272	1,456	1,533	1,588	1,590	1,461	1,347	1,296
1950	BN	1,254	1,250	1,251	1,282	1,444	1,582	1,675	1,697	1,779	1,658	1,542	1,483

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1951	AN	1,457	1,690	1,690	1,690	1,690	1,690	1,718	1,640	1,622	1,450	1,294	1,214
1952	W	1,162	1,167	1,286	1,517	1,690	1,690	1,718	2,002	2,030	1,910	1,776	1,706
1953	BN	1,646	1,634	1,650	1,690	1,690	1,690	1,707	1,727	1,830	1,766	1,613	1,536
1954	BN	1,483	1,482	1,483	1,488	1,541	1,658	1,718	1,866	1,855	1,697	1,555	1,487
1955	D	1,436	1,434	1,451	1,484	1,540	1,626	1,651	1,653	1,568	1,410	1,268	1,200
1956	W	1,155	1,151	1,690	1,690	1,690	1,690	1,718	1,782	2,030	1,897	1,737	1,652
1957	BN	1,596	1,585	1,579	1,571	1,634	1,690	1,678	1,742	1,886	1,733	1,590	1,515
1958	W	1,468	1,463	1,478	1,500	1,655	1,690	1,718	2,002	2,030	1,919	1,784	1,715
1959	D	1,653	1,636	1,616	1,641	1,690	1,690	1,710	1,668	1,546	1,365	1,210	1,156
1960	C	1,102	1,096	1,121	1,118	1,247	1,314	1,367	1,380	1,293	1,173	1,076	1,033
1961	C	1,002	1,000	1,085	1,091	1,114	1,117	1,088	1,015	921	809	717	676
1962	BN	643	637	664	671	870	990	1,075	1,224	1,469	1,466	1,405	1,381
1963	AN	1,364	1,363	1,380	1,425	1,606	1,641	1,718	1,907	2,030	1,996	1,868	1,773
1964	D	1,690	1,690	1,690	1,690	1,690	1,690	1,704	1,689	1,621	1,445	1,293	1,220
1965	W	1,173	1,194	1,618	1,690	1,690	1,690	1,718	1,734	1,800	1,783	1,658	1,569
1966	BN	1,503	1,575	1,572	1,569	1,664	1,690	1,704	1,760	1,635	1,464	1,316	1,249
1967	W	1,200	1,231	1,382	1,481	1,569	1,690	1,718	2,002	2,030	1,921	1,806	1,730
1968	D	1,672	1,657	1,654	1,655	1,690	1,690	1,670	1,690	1,607	1,423	1,273	1,195
1969	W	1,145	1,171	1,258	1,690	1,690	1,690	1,718	2,002	2,030	1,896	1,746	1,663
1970	AN	1,606	1,608	1,629	1,626	1,690	1,690	1,697	1,782	1,813	1,671	1,525	1,448
1971	BN	1,391	1,431	1,516	1,580	1,652	1,690	1,704	1,763	1,865	1,758	1,618	1,550
1972	D	1,499	1,508	1,552	1,602	1,662	1,690	1,668	1,673	1,647	1,478	1,339	1,270
1973	AN	1,225	1,235	1,315	1,443	1,629	1,690	1,718	1,949	2,030	1,875	1,739	1,668
1974	W	1,620	1,690	1,688	1,686	1,690	1,690	1,718	1,929	2,030	1,879	1,719	1,638
1975	W	1,580	1,570	1,570	1,573	1,690	1,690	1,718	1,795	2,030	1,909	1,767	1,690
1976	C	1,629	1,638	1,655	1,629	1,636	1,637	1,581	1,445	1,299	1,122	983	919
1977	C	874	866	885	870	876	856	806	741	652	556	481	448
1978	W	420	417	473	625	791	994	1,159	1,433	1,881	2,030	1,973	1,773
1979	AN	1,690	1,690	1,690	1,690	1,690	1,690	1,718	1,974	2,030	1,854	1,693	1,614
1980	W	1,563	1,563	1,581	1,690	1,690	1,690	1,718	1,914	2,030	1,955	1,807	1,733

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1981	D	1,669	1,652	1,646	1,651	1,690	1,690	1,718	1,689	1,610	1,432	1,291	1,223
1982	W	1,187	1,291	1,439	1,642	1,690	1,690	1,718	2,002	2,030	1,929	1,801	1,667
1983	W	1,593	1,620	1,617	1,614	1,690	1,690	1,718	2,002	2,030	2,030	1,900	1,764
1984	AN	1,690	1,690	1,687	1,685	1,690	1,690	1,687	1,734	1,786	1,639	1,475	1,388
1985	D	1,338	1,370	1,412	1,400	1,454	1,525	1,536	1,619	1,560	1,414	1,296	1,245
1986	W	1,217	1,236	1,310	1,376	1,690	1,690	1,718	2,002	2,030	1,962	1,833	1,773
1987	C	1,690	1,674	1,659	1,629	1,642	1,669	1,619	1,513	1,387	1,207	1,059	986
1988	C	941	939	976	1,028	1,090	1,102	1,058	992	934	827	739	699
1989	C	668	674	706	735	776	873	946	1,085	1,148	1,062	993	975
1990	C	988	990	1,016	1,028	1,074	1,102	1,075	1,054	1,012	901	808	768
1991	C	735	732	756	754	746	809	846	892	990	933	877	855
1992	C	841	843	870	883	960	1,004	1,010	1,068	1,017	958	875	829
1993	W	799	793	838	1,051	1,198	1,392	1,494	1,796	2,030	1,971	1,883	1,773
1994	C	1,690	1,676	1,667	1,663	1,684	1,689	1,635	1,564	1,468	1,296	1,155	1,085
1995	W	1,029	1,045	1,087	1,342	1,429	1,690	1,718	2,002	2,030	1,984	1,887	1,773
1996	W	1,690	1,671	1,690	1,690	1,690	1,690	1,718	2,002	2,030	1,897	1,735	1,656
1997	W	1,592	1,631	1,628	1,625	1,690	1,690	1,691	1,915	1,981	1,833	1,684	1,631
1998	W	1,568	1,559	1,559	1,690	1,690	1,690	1,718	1,872	2,030	1,939	1,798	1,716
1999	AN	1,654	1,664	1,677	1,673	1,690	1,690	1,718	1,765	1,921	1,778	1,624	1,548
2000	AN	1,483	1,473	1,459	1,533	1,690	1,690	1,718	1,924	2,001	1,837	1,694	1,625
2001	D	1,572	1,561	1,552	1,543	1,574	1,651	1,645	1,737	1,614	1,450	1,312	1,248
2002	D	1,204	1,213	1,285	1,340	1,389	1,420	1,428	1,568	1,587	1,448	1,331	1,276
2003	BN	1,240	1,275	1,332	1,399	1,442	1,468	1,512	1,583	1,701	1,569	1,453	1,400



**Table 10. LSJR Alternative 2 Monthly Average Flow at Modesto on the Tuolumne River in cfs and February–June Flow Volume in TAF**

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Feb-Jun [TAF]
1922	W	1,872	711	770	603	681	589	2,807	2,335	8,284	1,913	566	579	878
1923	AN	719	645	1,925	1,995	1,867	1,126	2,102	1,695	1,072	575	566	587	466
1924	C	732	605	580	579	200	200	467	680	200	331	342	353	105
1925	BN	428	442	440	427	817	540	1,176	1,750	1,183	380	389	408	327
1926	D	547	500	476	464	364	416	1,397	989	299	379	389	405	208
1927	AN	479	449	452	456	803	520	1,183	1,477	2,289	556	568	811	374
1928	BN	1,279	1,120	1,165	690	1,467	3,545	1,383	1,457	514	378	388	410	505
1929	C	547	495	477	468	200	322	497	1,229	756	333	341	363	181
1930	C	459	466	438	436	252	478	827	894	961	344	351	368	205
1931	C	456	453	449	437	200	215	518	680	200	334	344	354	109
1932	AN	424	437	430	427	834	559	823	1,704	1,791	577	568	578	343
1933	D	736	630	591	582	200	267	575	816	1,432	384	393	414	197
1934	C	482	471	451	434	324	488	625	485	319	331	341	353	134
1935	AN	435	445	437	436	385	446	1,563	1,727	1,718	562	565	587	350
1936	AN	733	609	597	593	5,672	3,418	2,635	1,691	1,311	611	565	582	875
1937	W	732	621	600	590	1,973	4,060	2,536	2,062	1,341	555	566	586	717
1938	W	732	618	1,922	1,613	6,992	7,268	4,003	2,342	7,631	3,684	572	597	1,671
1939	D	931	650	602	593	216	1,245	948	703	249	384	397	412	203
1940	AN	482	470	440	434	869	3,840	3,344	1,857	1,170	625	514	528	669
1941	W	640	526	755	2,678	4,922	4,375	2,568	2,157	1,798	2,545	618	547	935
1942	W	689	574	648	3,278	1,038	2,271	2,825	1,535	5,076	3,292	735	704	762
1943	W	814	641	785	3,638	3,166	5,681	2,820	1,610	1,714	1,073	501	436	894
1944	BN	753	584	626	650	278	1,065	551	1,483	897	414	405	359	259
1945	AN	526	453	389	529	2,521	3,515	1,868	1,480	1,553	688	634	572	651
1946	AN	684	466	3,746	2,702	2,133	2,788	1,655	1,587	891	637	600	580	539
1947	D	660	576	675	615	288	442	645	1,145	373	322	352	345	174
1948	BN	480	454	398	393	200	237	743	1,418	1,459	489	407	344	244
1949	BN	519	468	412	519	200	400	1,069	1,421	807	354	359	343	235

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Feb-Jun [TAF]
1950	BN	525	475	463	686	447	416	1,106	1,522	1,072	395	379	370	274
1951	AN	513	3,234	8,050	3,795	3,629	2,441	869	1,213	864	422	399	370	529
1952	W	461	400	475	846	907	3,412	3,243	3,843	6,317	3,733	617	591	1,067
1953	BN	680	479	517	1,293	1,186	1,298	907	842	1,391	519	433	400	334
1954	BN	460	400	391	397	367	693	1,434	1,457	622	373	379	369	275
1955	D	468	385	420	702	220	270	484	1,194	981	338	352	341	189
1956	W	395	372	795	7,363	4,081	3,125	1,545	1,821	2,796	2,933	681	574	797
1957	BN	697	478	491	518	447	870	581	1,236	1,361	399	408	405	270
1958	W	489	380	432	561	637	4,246	4,397	3,196	6,716	2,724	672	646	1,154
1959	D	753	519	581	624	1,874	1,757	753	755	467	349	333	366	331
1960	C	461	364	307	362	414	485	800	989	548	275	295	321	195
1961	C	310	330	282	337	200	231	555	716	410	236	256	235	127
1962	BN	298	314	323	314	839	452	1,307	1,177	1,499	358	396	408	314
1963	AN	464	273	315	425	1,113	364	1,040	1,737	3,164	527	500	998	441
1964	D	1,099	1,180	632	824	774	456	568	1,051	756	256	268	280	216
1965	W	343	266	234	4,390	3,453	2,865	2,742	1,460	1,600	543	565	717	716
1966	BN	585	491	2,109	1,104	270	775	1,005	1,155	289	246	242	242	211
1967	W	389	267	318	582	414	1,666	2,851	2,163	8,549	6,505	589	674	937
1968	D	645	449	485	515	1,004	1,307	629	937	474	350	338	330	261
1969	W	398	367	288	1,513	5,366	3,477	3,916	6,054	8,595	3,812	459	508	1,629
1970	AN	1,216	761	1,146	5,994	1,356	2,641	541	1,337	1,129	432	360	426	419
1971	BN	673	503	532	524	339	1,153	652	1,135	1,405	333	350	358	282
1972	D	515	322	524	367	271	726	524	1,119	739	276	286	284	204
1973	AN	315	451	522	524	670	1,810	1,005	2,130	1,518	484	509	512	430
1974	W	560	833	2,027	2,864	1,585	3,291	1,697	1,825	2,533	1,039	475	657	654
1975	W	1,068	1,088	789	643	933	3,193	2,086	1,893	2,770	1,262	558	569	654
1976	C	1,352	812	584	543	200	231	336	680	200	245	278	280	99
1977	C	284	309	322	295	200	200	266	345	353	170	167	153	81
1978	W	217	243	251	432	706	1,077	1,190	1,958	2,228	842	446	4,008	429

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Feb-Jun [TAF]
1979	AN	1,161	788	648	2,632	3,566	3,765	1,041	2,036	1,203	547	625	516	688
1980	W	609	813	877	5,467	6,674	3,280	1,775	1,617	4,170	3,500	567	697	1,039
1981	D	743	775	519	693	272	1,543	898	1,067	508	321	348	341	259
1982	W	439	421	600	685	5,737	5,097	7,800	4,279	6,332	3,679	592	2,367	1,736
1983	W	3,175	3,152	5,340	5,281	5,286	9,186	2,693	3,110	13,584	7,143	2,862	2,080	2,018
1984	AN	1,513	5,945	7,476	4,168	3,234	2,940	682	1,743	1,109	558	597	599	581
1985	D	743	974	430	489	248	410	1,015	1,109	454	340	367	359	195
1986	W	334	363	356	284	4,402	7,671	2,314	1,776	5,485	648	541	744	1,290
1987	C	1,701	1,300	566	596	200	322	652	660	218	256	265	253	123
1988	C	242	259	254	305	200	342	534	693	329	175	190	177	127
1989	C	194	220	245	244	220	927	1,039	1,044	696	187	203	212	237
1990	C	215	245	232	236	200	423	739	592	336	199	221	212	138
1991	C	214	239	223	208	200	546	605	1,093	992	183	201	188	207
1992	C	210	239	217	224	323	374	773	615	200	169	174	175	137
1993	W	213	208	217	781	580	1,038	1,126	2,052	2,034	2,059	326	1,514	410
1994	C	1,254	448	413	399	200	351	655	894	400	188	201	186	151
1995	W	230	218	223	518	576	4,774	3,862	3,243	10,748	8,340	1,781	1,507	1,394
1996	W	1,133	451	530	1,684	5,863	4,379	2,133	1,874	2,923	794	483	533	1,023
1997	W	592	525	6,295	17,734	2,467	3,255	931	1,763	1,129	499	486	486	568
1998	W	693	337	431	1,359	7,183	4,573	2,814	1,552	8,435	6,736	517	560	1,445
1999	AN	962	506	695	2,008	4,611	3,408	1,882	1,851	1,465	497	501	506	779
2000	AN	591	442	344	433	2,173	3,332	1,293	1,753	1,082	488	691	721	579
2001	D	692	465	418	518	216	582	763	1,327	200	293	314	300	187
2002	D	322	243	383	427	284	459	1,012	1,210	750	279	326	296	223
2003	BN	315	247	294	264	234	403	733	1,691	1,250	228	283	269	260

**Table 11. LSJR Alternative 2 End-of-Month Storage at New Exchequer on the Merced River in TAF from 1922–2003**

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1922	W	469	456	483	506	664	735	767	919	1,024	926	795	731
1923	AN	675	674	675	675	675	702	765	894	922	853	710	631
1924	C	596	589	581	576	589	587	585	561	451	335	241	199
1925	BN	176	181	186	191	295	358	486	658	716	693	652	630
1926	D	614	607	603	597	648	678	744	707	669	617	554	513
1927	AN	486	474	479	468	489	524	542	683	737	728	724	749
1928	BN	675	670	675	675	675	673	669	726	706	662	630	631
1929	C	617	603	590	579	596	609	609	579	532	506	489	460
1930	C	434	421	408	396	397	381	393	384	371	372	375	376
1931	C	355	346	336	330	349	363	378	387	322	236	166	137
1932	AN	116	104	166	199	350	411	483	638	768	758	706	681
1933	D	661	648	638	639	649	673	686	694	730	626	519	473
1934	C	446	434	435	452	499	545	571	544	481	380	298	260
1935	AN	237	241	248	313	363	433	615	793	923	880	816	785
1936	AN	675	667	659	675	675	735	835	964	974	889	743	671
1937	W	620	609	613	620	675	735	812	970	1,021	908	768	699
1938	W	666	657	675	675	675	735	845	970	1,024	905	760	690
1939	D	650	654	656	654	675	725	793	785	696	577	470	426
1940	AN	412	401	391	502	625	733	845	970	994	907	814	751
1941	W	675	663	675	675	675	735	818	970	1,024	906	762	693
1942	W	651	650	663	663	675	735	826	950	1,024	906	763	695
1943	W	661	674	674	674	675	735	845	970	995	894	747	678
1944	BN	643	631	623	627	675	733	745	847	857	773	677	629
1945	AN	599	617	632	641	675	735	804	933	982	868	725	657
1946	AN	618	630	630	630	667	728	815	942	933	838	743	699
1947	D	669	675	675	675	675	712	738	774	699	578	470	422
1948	BN	399	393	384	380	389	407	456	573	670	614	543	505
1949	BN	483	470	462	457	479	535	611	721	725	638	556	521
1950	BN	496	484	474	496	552	587	679	771	792	705	617	577

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1951	AN	555	675	675	675	675	735	791	841	823	721	617	567
1952	W	539	531	574	640	675	735	845	970	1,024	909	769	699
1953	BN	666	657	669	675	675	697	740	749	765	680	574	525
1954	BN	496	484	474	477	522	592	694	801	777	688	595	557
1955	D	530	518	518	531	553	571	580	665	678	587	496	457
1956	W	431	417	675	675	675	735	807	959	1,024	904	760	690
1957	BN	652	647	639	637	675	715	735	804	842	741	639	590
1958	W	562	554	559	576	670	735	845	970	1,024	917	786	720
1959	D	675	662	650	655	675	708	752	753	681	560	452	423
1960	C	400	385	371	363	418	460	525	586	561	481	409	378
1961	C	355	345	343	335	351	366	399	421	387	308	238	208
1962	BN	185	171	165	158	310	396	542	668	787	776	729	704
1963	AN	675	661	650	675	675	720	779	907	977	912	818	770
1964	D	675	675	675	675	675	681	689	712	666	552	444	398
1965	W	366	368	575	642	675	713	792	904	991	950	803	735
1966	BN	675	675	675	675	675	715	789	845	772	654	551	508
1967	W	483	479	575	619	668	735	845	970	1,024	914	777	711
1968	D	675	665	662	663	675	704	732	746	681	556	452	409
1969	W	382	388	410	675	675	735	845	970	1,024	903	759	688
1970	AN	642	645	654	654	675	735	762	855	853	755	657	613
1971	BN	588	591	626	659	675	709	737	803	846	762	668	625
1972	D	601	592	615	624	660	711	733	788	767	656	559	524
1973	AN	509	504	521	573	675	735	797	970	1,024	916	782	717
1974	W	669	675	675	675	675	735	815	970	1,024	899	754	684
1975	W	640	631	630	641	675	735	773	932	1,024	906	761	689
1976	C	647	652	650	640	655	663	655	641	545	423	328	292
1977	C	270	251	237	223	222	213	205	187	162	98	44	19
1978	W	-	-	17	113	261	428	597	854	1,024	978	894	837
1979	AN	675	675	669	675	675	735	793	969	978	876	742	673
1980	W	634	624	623	646	675	735	821	962	1,024	906	763	695

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1981	D	661	642	631	633	658	696	739	784	732	620	523	482
1982	W	458	486	532	646	675	735	845	970	1,024	910	769	690
1983	W	646	658	658	658	675	735	821	970	1,024	909	766	690
1984	AN	638	664	664	664	675	735	789	919	905	819	726	683
1985	D	660	666	671	672	675	707	771	817	752	635	531	489
1986	W	467	464	478	505	675	735	845	970	1,024	926	799	733
1987	C	675	658	644	633	650	668	694	688	604	489	394	355
1988	C	325	321	315	325	341	371	408	433	404	335	272	247
1989	C	223	212	208	202	218	293	386	440	430	378	336	322
1990	C	314	309	300	299	315	347	395	402	359	289	225	197
1991	C	174	159	144	130	124	201	240	332	390	362	326	311
1992	C	291	285	278	274	329	362	430	453	402	356	304	288
1993	W	265	254	257	428	517	634	730	970	1,024	934	809	747
1994	C	675	661	651	645	668	678	686	683	619	495	396	347
1995	W	329	332	339	524	587	735	844	970	1,024	925	797	733
1996	W	675	662	671	675	675	735	829	970	982	884	740	669
1997	W	620	632	632	632	675	735	821	955	944	850	757	712
1998	W	675	666	665	675	675	735	845	954	1,024	908	766	691
1999	AN	656	655	668	668	675	714	754	891	902	795	691	644
2000	AN	612	602	590	630	675	735	806	948	939	827	726	678
2001	D	625	615	608	605	630	692	727	805	722	607	508	475
2002	D	443	436	467	493	519	551	621	695	669	566	476	435
2003	BN	405	418	434	458	482	518	559	702	742	657	579	538

**Table 12. LSJR Alternative 2 Monthly Average Flow at Stevinson on the Merced River in cfs and February–June Flow Volume in TAF**

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Feb-Jun [TAF]
1922	W	636	390	504	482	587	780	417	1,356	2,644	1,387	867	453	346
1923	AN	774	304	1,165	1,271	1,001	182	531	937	521	159	762	598	187
1924	C	593	385	382	396	150	150	225	296	150	54	36	49	58
1925	BN	282	419	425	428	382	250	605	849	494	116	77	54	154
1926	D	266	354	375	375	227	179	729	563	161	51	37	51	111
1927	AN	274	322	313	381	493	283	602	963	760	136	84	89	185
1928	BN	1,612	352	523	592	709	517	477	670	229	179	88	80	156
1929	C	296	387	387	408	150	153	262	628	326	49	54	92	91
1930	C	276	367	359	361	150	237	397	446	376	35	35	93	96
1931	C	276	385	372	382	150	150	249	299	150	87	41	75	60
1932	AN	266	363	475	469	528	257	440	904	844	109	57	58	178
1933	D	310	386	383	426	150	150	296	433	602	60	41	30	98
1934	C	298	383	405	466	162	211	309	182	150	85	36	29	61
1935	AN	282	389	409	580	180	280	924	1,047	867	182	100	55	198
1936	AN	1,791	410	385	564	4,601	459	736	973	548	108	807	441	429
1937	W	707	424	417	416	3,445	1,020	548	1,750	645	597	812	446	433
1938	W	442	401	2,111	1,341	4,912	4,482	955	3,190	4,463	2,238	1,159	596	1,067
1939	D	833	397	383	443	329	231	508	329	150	67	73	68	92
1940	AN	331	424	418	573	469	481	750	1,690	471	145	188	416	233
1941	W	1,159	427	1,508	1,341	3,103	1,576	531	2,452	2,282	1,749	1,069	508	587
1942	W	718	447	1,183	1,527	1,494	405	622	920	2,570	1,651	1,021	509	354
1943	W	494	549	783	2,172	1,962	3,068	949	1,076	511	534	941	490	451
1944	BN	475	459	436	414	190	263	269	813	447	172	136	88	120
1945	AN	357	489	446	441	2,982	694	524	859	692	878	937	421	334
1946	AN	840	640	1,862	1,067	150	267	649	852	383	170	129	81	139
1947	D	577	647	963	621	867	202	350	559	171	65	80	76	126
1948	BN	319	397	398	388	150	150	360	768	729	182	100	97	130
1949	BN	348	404	386	402	150	254	477	771	376	121	121	70	122

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Feb-Jun [TAF]
1950	BN	326	394	394	428	220	172	578	758	420	162	130	77	129
1951	AN	329	2,430	4,460	1,734	1,625	352	437	572	350	186	116	63	194
1952	W	347	417	460	1,986	702	1,659	753	3,620	3,086	1,942	1,231	621	593
1953	BN	450	428	334	1,143	717	150	403	397	531	140	126	55	129
1954	BN	360	405	403	406	173	322	571	725	249	167	131	81	123
1955	D	314	392	409	537	150	150	218	631	460	120	113	55	97
1956	W	311	386	1,927	4,363	1,968	477	518	1,038	2,106	1,954	1,152	610	362
1957	BN	580	422	409	411	214	205	296	651	592	195	154	81	117
1958	W	424	381	405	481	299	1,770	2,212	3,356	2,845	1,720	1,123	675	633
1959	D	719	395	382	395	792	179	397	364	171	107	116	94	111
1960	C	307	374	383	397	191	198	420	478	215	101	127	49	90
1961	C	286	365	387	372	150	150	282	309	150	70	55	40	62
1962	BN	264	341	359	360	573	241	665	670	689	253	182	78	168
1963	AN	572	362	376	394	3,195	198	440	872	706	277	194	158	311
1964	D	1,467	732	456	485	414	150	255	455	272	163	114	77	92
1965	W	346	356	528	1,780	633	224	555	842	813	309	1,448	634	182
1966	BN	918	1,069	813	1,055	708	211	534	592	158	206	165	79	130
1967	W	293	366	400	408	184	1,484	980	2,449	4,143	4,063	1,494	797	557
1968	D	822	411	330	382	733	156	316	394	168	196	177	130	105
1969	W	275	431	434	2,022	4,180	1,272	1,681	5,388	4,062	2,433	1,233	711	983
1970	AN	825	320	444	2,939	877	811	299	709	427	256	222	150	185
1971	BN	383	375	359	425	505	192	329	595	605	256	188	102	132
1972	D	359	386	423	270	150	267	269	543	323	240	222	18	94
1973	AN	309	412	432	474	1,087	976	440	2,161	869	600	1,038	574	331
1974	W	815	886	1,096	1,691	854	1,031	541	1,374	716	841	1,054	586	270
1975	W	667	350	409	307	1,617	991	329	1,015	2,266	1,163	1,062	533	368
1976	C	1,107	357	362	392	150	150	165	302	150	175	205	136	55
1977	C	354	311	322	373	150	150	150	150	155	106	81	44	45
1978	W	268	282	350	516	533	611	786	1,229	3,098	2,613	1,294	1,369	374



YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Feb-Jun [TAF]
1979	AN	2,685	600	441	1,744	1,916	1,232	444	1,119	521	262	731	443	308
1980	W	698	374	392	3,976	4,008	1,393	578	930	2,062	2,284	1,248	583	530
1981	D	629	398	444	479	150	169	410	517	232	168	168	97	89
1982	W	401	405	414	484	3,153	2,048	4,357	3,327	1,884	2,249	1,390	1,170	877
1983	W	1,344	1,754	2,298	3,657	4,107	5,789	662	2,799	7,324	5,943	2,444	1,100	1,231
1984	AN	1,196	1,802	3,551	1,903	1,391	514	434	862	383	291	277	217	213
1985	D	580	338	334	488	704	192	494	556	192	236	206	100	126
1986	W	405	395	408	380	3,629	3,925	744	1,921	1,692	946	1,113	737	706
1987	C	1,028	416	418	381	150	150	319	309	150	130	135	87	64
1988	C	356	340	375	377	150	156	313	348	185	97	92	52	69
1989	C	256	274	322	304	150	312	538	429	245	68	62	67	101
1990	C	305	303	327	310	150	182	383	283	161	72	68	26	69
1991	C	248	258	274	292	150	312	272	598	487	91	54	10	110
1992	C	270	289	297	291	188	166	440	342	150	76	55	11	77
1993	W	206	313	350	684	360	511	608	1,258	2,389	1,492	1,085	640	307
1994	C	1,343	369	334	315	150	150	292	381	150	48	54	2	67
1995	W	239	327	317	611	252	3,209	692	2,954	5,242	4,891	1,700	509	746
1996	W	936	379	365	1,066	2,994	1,374	662	1,331	528	374	903	480	409
1997	W	613	845	3,494	9,912	1,363	1,199	568	904	383	149	114	84	262
1998	W	463	336	356	1,594	5,189	1,829	676	816	4,544	4,614	1,499	759	761
1999	AN	741	382	296	820	1,900	218	430	917	518	174	196	100	232
2000	AN	285	345	318	325	2,329	997	558	898	437	175	112	59	310
2001	D	668	496	392	389	150	280	363	699	150	74	84	25	99
2002	D	239	403	390	449	150	192	508	579	286	90	61	2	103
2003	BN	227	316	353	327	150	202	376	878	571	80	66	41	131

## **LSJR Alternative 3 (40% Unimpaired Flow)**

**Table 13. LSJR Alternative 3 End-of-Month Storage at New Melones on the Stanislaus River in TAF from 1922–2003**

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1922	W	954	964	994	1,027	1,110	1,160	1,174	1,323	1,469	1,446	1,382	1,340
1923	AN	1,273	1,284	1,350	1,413	1,451	1,465	1,473	1,531	1,545	1,501	1,417	1,370
1924	C	1,304	1,299	1,311	1,324	1,294	1,218	1,159	1,062	970	885	800	766
1925	BN	703	700	709	720	808	855	857	923	956	939	884	858
1926	D	804	802	806	810	858	874	878	840	792	723	663	631
1927	AN	585	595	645	688	774	815	872	944	994	958	907	890
1928	BN	843	871	894	910	950	1,046	1,047	1,101	1,067	994	927	894
1929	C	843	848	858	865	844	834	814	752	697	633	574	541
1930	C	493	491	490	508	522	564	551	510	510	467	422	395
1931	C	382	393	392	406	381	352	315	236	203	165	123	105
1932	AN	82	85	135	172	240	257	255	348	430	448	427	410
1933	D	400	399	406	422	386	375	365	337	327	287	250	228
1934	C	216	226	243	270	296	309	272	212	186	153	117	100
1935	AN	76	76	86	123	139	178	244	382	466	462	436	420
1936	AN	405	415	429	509	642	680	745	856	929	903	859	836
1937	W	790	794	806	827	897	972	983	1,087	1,126	1,076	1,018	986
1938	W	935	938	1,020	1,096	1,237	1,391	1,504	1,768	1,952	1,941	1,875	1,757
1939	D	1,691	1,683	1,686	1,697	1,687	1,685	1,630	1,541	1,464	1,370	1,280	1,223
1940	AN	1,151	1,143	1,148	1,247	1,326	1,403	1,473	1,571	1,571	1,496	1,423	1,378
1941	W	1,312	1,313	1,347	1,400	1,465	1,536	1,556	1,700	1,773	1,732	1,655	1,604
1942	W	1,537	1,535	1,578	1,668	1,734	1,774	1,800	1,890	1,977	1,945	1,849	1,794
1943	W	1,725	1,736	1,758	1,845	1,927	2,030	2,077	2,118	2,127	2,046	1,948	1,881
1944	BN	1,803	1,793	1,788	1,787	1,802	1,829	1,799	1,717	1,674	1,583	1,484	1,424
1945	AN	1,356	1,385	1,410	1,445	1,522	1,575	1,546	1,615	1,662	1,611	1,528	1,481
1946	AN	1,415	1,440	1,524	1,587	1,642	1,660	1,679	1,746	1,732	1,648	1,564	1,519
1947	D	1,452	1,471	1,491	1,505	1,515	1,527	1,490	1,402	1,343	1,252	1,169	1,128
1948	BN	1,075	1,067	1,065	1,068	1,037	1,034	1,026	985	1,044	999	939	909
1949	BN	858	865	874	881	864	896	875	865	860	802	749	718
1950	BN	664	651	652	699	749	795	772	845	916	879	833	807

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1951	AN	758	1,029	1,417	1,524	1,607	1,675	1,695	1,733	1,702	1,616	1,533	1,483
1952	W	1,416	1,425	1,476	1,615	1,674	1,751	1,754	2,015	2,156	2,145	2,061	1,993
1953	BN	1,911	1,906	1,920	1,957	1,967	1,982	1,933	1,901	1,922	1,864	1,766	1,705
1954	BN	1,631	1,636	1,647	1,661	1,685	1,704	1,658	1,695	1,640	1,546	1,457	1,404
1955	D	1,345	1,347	1,362	1,392	1,392	1,395	1,372	1,279	1,245	1,162	1,085	1,036
1956	W	981	982	1,226	1,486	1,595	1,659	1,697	1,795	1,878	1,844	1,763	1,724
1957	BN	1,649	1,656	1,670	1,688	1,722	1,750	1,713	1,691	1,696	1,610	1,528	1,468
1958	W	1,372	1,380	1,385	1,434	1,490	1,585	1,699	1,931	2,045	2,012	1,933	1,878
1959	D	1,808	1,812	1,821	1,847	1,892	1,908	1,862	1,760	1,679	1,583	1,490	1,440
1960	C	1,366	1,364	1,367	1,371	1,409	1,428	1,394	1,319	1,258	1,169	1,090	1,030
1961	C	948	956	969	971	952	940	916	853	788	718	650	612
1962	BN	585	583	585	594	654	686	668	700	722	699	653	619
1963	AN	603	613	632	689	757	799	820	950	1,034	1,014	966	946
1964	D	899	927	947	981	980	976	964	908	873	807	750	706
1965	W	680	695	907	1,114	1,188	1,235	1,308	1,408	1,467	1,456	1,400	1,368
1966	BN	1,301	1,331	1,364	1,402	1,420	1,435	1,395	1,400	1,336	1,246	1,168	1,113
1967	W	1,056	1,062	1,141	1,243	1,300	1,351	1,429	1,583	1,815	1,897	1,836	1,796
1968	D	1,726	1,731	1,741	1,763	1,810	1,827	1,790	1,730	1,660	1,560	1,463	1,400
1969	W	1,344	1,365	1,374	1,670	1,840	1,963	2,083	2,306	2,413	2,300	2,130	1,990
1970	AN	1,921	1,921	1,931	1,936	1,970	2,030	2,032	2,029	2,019	1,913	1,806	1,750
1971	BN	1,680	1,704	1,770	1,826	1,861	1,895	1,882	1,887	1,899	1,827	1,731	1,675
1972	D	1,599	1,612	1,659	1,694	1,716	1,728	1,687	1,665	1,597	1,498	1,406	1,358
1973	AN	1,304	1,304	1,329	1,439	1,556	1,625	1,619	1,682	1,703	1,620	1,534	1,494
1974	W	1,441	1,483	1,558	1,672	1,737	1,815	1,896	1,979	2,011	1,940	1,847	1,793
1975	W	1,726	1,736	1,758	1,784	1,831	1,905	1,930	1,905	1,997	1,931	1,838	1,780
1976	C	1,712	1,731	1,750	1,758	1,748	1,723	1,666	1,568	1,452	1,345	1,248	1,186
1977	C	1,117	1,111	1,104	1,092	1,053	1,000	943	874	814	717	623	575
1978	W	523	506	520	599	655	715	756	819	885	901	857	858
1979	AN	806	815	832	901	989	1,066	1,080	1,149	1,137	1,067	1,003	975
1980	W	923	937	949	1,254	1,443	1,511	1,583	1,646	1,718	1,712	1,633	1,587

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1981	D	1,533	1,528	1,539	1,578	1,568	1,588	1,550	1,470	1,378	1,285	1,204	1,166
1982	W	1,112	1,165	1,296	1,501	1,684	1,842	2,032	2,127	2,177	2,082	1,922	1,763
1983	W	1,686	1,691	1,691	1,696	1,883	2,030	2,065	2,165	2,420	2,300	2,130	1,967
1984	AN	1,909	1,914	1,913	1,917	1,970	2,030	2,020	2,021	1,999	1,910	1,821	1,771
1985	D	1,705	1,731	1,763	1,769	1,790	1,814	1,770	1,713	1,635	1,532	1,447	1,408
1986	W	1,359	1,363	1,378	1,456	1,822	2,030	2,068	2,097	2,119	2,039	1,962	1,931
1987	C	1,867	1,868	1,874	1,865	1,834	1,840	1,781	1,662	1,564	1,467	1,385	1,342
1988	C	1,263	1,241	1,229	1,229	1,214	1,198	1,145	1,064	1,003	937	874	826
1989	C	785	762	752	751	747	771	733	696	676	641	608	600
1990	C	603	607	623	636	631	637	594	528	481	429	394	376
1991	C	351	344	355	352	325	349	347	313	271	231	194	191
1992	C	177	177	192	202	238	255	226	166	142	116	91	93
1993	W	86	86	104	256	329	400	409	459	521	529	508	498
1994	C	504	523	556	588	584	570	532	456	410	349	296	270
1995	W	248	250	277	464	533	719	814	1,013	1,207	1,378	1,375	1,380
1996	W	1,355	1,367	1,402	1,484	1,577	1,714	1,721	1,774	1,784	1,710	1,640	1,599
1997	W	1,554	1,577	1,739	1,885	1,970	2,030	2,011	2,013	1,968	1,877	1,789	1,757
1998	W	1,705	1,716	1,744	1,857	1,970	2,030	2,049	2,037	2,180	2,214	2,042	1,907
1999	AN	1,834	1,834	1,836	1,840	1,950	2,030	2,033	1,993	1,976	1,890	1,810	1,767
2000	AN	1,724	1,724	1,735	1,784	1,838	1,893	1,865	1,806	1,767	1,677	1,603	1,572
2001	D	1,520	1,536	1,569	1,581	1,606	1,606	1,559	1,473	1,392	1,291	1,200	1,144
2002	D	1,080	1,074	1,107	1,150	1,165	1,192	1,154	1,088	1,016	941	877	847
2003	BN	808	818	866	915	940	956	943	897	888	835	787	764

**Table 14. LSJR Alternative 3 Monthly Average Flow at Ripon on the Stanislaus River in cfs and February–June Flow Volume in TAF**

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Feb-Jun [TAF]
1922	W	1,377	443	447	335	771	670	1,143	2,500	2,500	377	439	436	454
1923	AN	1,207	444	493	356	396	501	1,391	2,316	1,082	511	456	493	342
1924	C	1,341	367	311	280	924	1,020	471	553	345	404	428	423	198
1925	BN	1,009	439	395	297	1,102	781	1,754	2,316	1,156	442	439	434	425
1926	D	1,066	369	311	267	533	514	1,452	904	276	454	439	434	220
1927	AN	1,007	505	338	314	1,167	872	1,795	2,160	1,647	426	439	434	456
1928	BN	1,076	431	387	295	334	1,646	1,439	1,561	450	441	439	434	329
1929	C	1,060	302	280	295	848	329	672	1,275	659	421	428	423	225
1930	C	993	313	250	308	533	677	1,237	1,099	894	435	428	423	266
1931	C	528	293	246	187	848	729	625	598	276	418	404	375	182
1932	AN	506	296	432	215	918	761	1,371	2,500	2,010	408	439	434	455
1933	D	537	356	291	220	1,003	547	713	1,158	1,385	434	367	386	285
1934	C	525	291	338	214	324	657	672	449	282	405	404	375	143
1935	AN	504	302	289	230	339	455	2,117	2,466	1,674	554	439	434	424
1936	AN	550	290	256	250	1,433	1,002	1,936	2,160	1,297	476	439	437	469
1937	W	1,012	356	353	314	792	807	1,291	2,500	1,123	476	439	434	391
1938	W	1,066	404	427	321	1,268	1,561	2,044	2,500	2,500	718	556	1,925	590
1939	D	1,396	547	471	420	673	481	1,203	716	296	438	439	449	200
1940	AN	1,204	266	225	371	1,203	1,717	1,728	2,251	1,042	511	456	486	478
1941	W	1,260	475	459	454	778	1,047	1,237	2,500	1,566	632	469	469	428
1942	W	1,271	678	474	323	742	683	1,674	2,303	2,171	785	594	641	454
1943	W	1,363	573	459	1,148	850	2,391	2,057	1,808	1,284	615	593	629	504
1944	BN	1,364	572	584	543	452	449	672	1,685	827	480	461	441	246
1945	AN	1,224	378	385	390	1,318	631	1,398	2,166	1,546	568	517	523	420
1946	AN	1,256	353	225	552	477	748	1,600	1,991	907	450	481	497	344
1947	D	1,212	343	347	404	627	611	914	1,184	417	437	393	394	224
1948	BN	1,026	432	383	362	961	617	1,049	2,056	1,660	506	439	404	381
1949	BN	980	367	355	318	897	397	1,304	1,802	773	455	409	380	309

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Feb-Jun [TAF]
1950	BN	954	411	421	338	526	618	1,714	2,205	1,304	447	405	409	382
1951	AN	952	461	534	573	814	826	1,176	1,360	766	444	400	361	295
1952	W	1,105	331	272	312	737	924	2,245	2,500	2,487	887	639	781	535
1953	BN	1,347	525	514	759	920	572	1,405	1,249	1,553	616	451	480	339
1954	BN	1,239	342	333	351	317	943	1,775	1,698	605	436	393	356	322
1955	D	996	322	355	475	611	555	686	1,490	995	443	357	359	260
1956	W	1,005	381	370	762	709	787	1,371	2,500	1,902	613	484	463	438
1957	BN	1,212	325	312	342	439	755	914	1,828	1,270	449	439	431	313
1958	W	1,218	369	353	327	843	1,119	1,896	2,500	2,185	678	586	633	512
1959	D	1,302	450	493	434	475	591	995	748	457	422	401	435	195
1960	C	1,162	337	316	343	424	664	1,082	1,021	477	406	384	341	221
1961	C	920	354	356	326	806	648	726	781	383	361	382	312	199
1962	BN	421	373	377	210	684	494	1,822	1,633	1,385	451	411	403	360
1963	AN	522	393	353	258	1,556	436	1,049	2,500	1,472	498	451	437	417
1964	D	1,021	348	286	347	786	735	820	1,190	713	425	379	383	255
1965	W	495	388	250	369	742	651	1,600	1,991	1,647	436	513	479	397
1966	BN	1,248	374	351	386	728	657	1,378	1,086	276	440	361	350	246
1967	W	991	299	288	276	583	1,275	1,183	2,500	2,500	948	582	670	484
1968	D	1,424	351	379	380	661	585	968	1,047	471	431	386	371	224
1969	W	1,059	319	339	422	1,304	1,002	2,326	2,500	2,259	2,064	1,876	1,745	561
1970	AN	1,450	537	905	4,835	2,255	1,254	827	1,659	1,156	468	480	559	422
1971	BN	1,262	269	280	336	511	709	1,156	1,555	1,405	568	493	536	320
1972	D	1,440	248	200	349	363	982	834	1,529	511	448	378	368	255
1973	AN	992	391	397	304	922	820	1,418	2,500	1,129	448	452	503	407
1974	W	1,076	284	273	263	673	1,301	1,660	2,420	1,405	557	500	649	449
1975	W	1,354	370	478	349	511	930	827	2,500	2,232	589	582	603	421
1976	C	1,157	471	297	368	825	742	605	644	438	429	347	328	195
1977	C	957	324	313	286	816	772	503	286	242	303	355	241	155
1978	W	473	263	275	256	778	1,451	1,754	2,500	2,030	546	459	479	511

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Feb-Jun [TAF]
1979	AN	1,118	468	411	219	778	1,041	1,385	2,500	955	459	450	430	400
1980	W	1,201	372	250	226	1,787	885	1,358	2,088	1,802	690	646	756	474
1981	D	1,381	576	496	503	669	533	1,102	1,073	383	442	372	393	224
1982	W	1,056	294	322	381	2,370	1,646	2,500	2,500	1,687	1,679	1,967	3,096	636
1983	W	2,256	2,519	3,187	4,124	1,765	4,480	1,432	2,500	4,357	4,645	2,705	3,113	872
1984	AN	1,830	3,321	5,140	2,085	1,289	1,176	1,055	1,932	995	628	668	813	387
1985	D	1,419	471	356	461	688	514	1,385	1,112	356	437	380	460	242
1986	W	1,095	428	356	304	2,500	2,450	1,701	1,952	1,445	632	466	597	597
1987	C	1,353	501	601	483	892	384	699	611	192	415	355	309	164
1988	C	958	287	320	289	550	384	578	540	269	346	373	303	139
1989	C	483	339	358	186	455	1,177	1,573	1,054	632	357	384	410	294
1990	C	434	349	339	179	602	540	901	566	343	338	382	274	175
1991	C	524	530	311	202	675	527	652	1,190	713	343	381	245	224
1992	C	477	404	288	209	501	507	914	618	150	236	185	9	161
1993	W	103	126	265	351	778	1,522	1,674	2,500	1,620	288	368	434	487
1994	C	360	338	323	158	667	397	713	1,034	276	329	368	252	184
1995	W	394	300	314	541	720	2,500	1,855	2,500	2,500	418	418	397	607
1996	W	1,115	361	363	343	1,919	1,399	1,714	2,452	1,176	528	542	542	519
1997	W	1,198	655	966	8,184	2,143	1,681	1,210	1,503	739	452	421	421	431
1998	W	1,208	257	247	324	2,832	1,868	1,647	2,218	2,500	1,101	2,230	2,231	655
1999	AN	1,718	823	1,083	1,527	1,419	860	1,163	2,407	1,445	495	518	544	435
2000	AN	1,178	350	341	453	1,314	1,041	1,492	1,900	860	435	385	401	396
2001	D	1,100	264	243	308	413	625	901	1,301	302	412	301	313	213
2002	D	919	311	377	314	396	664	1,432	1,405	652	406	365	343	273
2003	BN	867	282	311	243	396	625	1,042	2,114	1,217	435	337	307	325



**Table 15. LSJR Alternative 3 End-of-Month Storage at New Don Pedro on the Tuolumne River in TAF from 1922–2003**

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1922	W	1,314	1,300	1,325	1,364	1,515	1,623	1,718	1,879	2,030	1,960	1,853	1,773
1923	AN	1,690	1,690	1,690	1,690	1,690	1,690	1,718	1,708	1,733	1,676	1,543	1,482
1924	C	1,433	1,421	1,410	1,393	1,414	1,424	1,384	1,269	1,165	1,042	933	879
1925	BN	853	866	929	975	1,092	1,161	1,269	1,325	1,412	1,398	1,331	1,305
1926	D	1,281	1,277	1,285	1,288	1,352	1,431	1,461	1,444	1,372	1,256	1,157	1,112
1927	AN	1,079	1,118	1,165	1,207	1,328	1,402	1,467	1,558	1,711	1,691	1,598	1,556
1928	BN	1,517	1,548	1,584	1,594	1,651	1,690	1,718	1,813	1,759	1,615	1,490	1,429
1929	C	1,378	1,369	1,365	1,354	1,377	1,393	1,390	1,307	1,309	1,195	1,091	1,034
1930	C	994	984	1,024	1,048	1,096	1,138	1,123	1,103	1,138	1,062	992	960
1931	C	935	938	977	983	1,029	1,034	980	884	813	724	654	628
1932	AN	603	597	776	924	1,109	1,216	1,263	1,274	1,314	1,355	1,295	1,266
1933	D	1,228	1,211	1,216	1,211	1,261	1,285	1,324	1,315	1,270	1,195	1,114	1,078
1934	C	1,041	1,036	1,059	1,099	1,158	1,246	1,224	1,160	1,090	991	912	879
1935	AN	857	870	910	1,078	1,197	1,279	1,411	1,426	1,512	1,471	1,388	1,343
1936	AN	1,306	1,301	1,298	1,359	1,623	1,690	1,718	1,743	1,854	1,795	1,682	1,622
1937	W	1,569	1,556	1,554	1,553	1,690	1,690	1,718	1,716	1,818	1,707	1,581	1,515
1938	W	1,464	1,456	1,610	1,611	1,690	1,690	1,718	1,896	2,030	1,939	1,822	1,760
1939	D	1,690	1,690	1,690	1,690	1,690	1,690	1,670	1,611	1,492	1,334	1,202	1,145
1940	AN	1,124	1,122	1,188	1,342	1,547	1,690	1,718	1,718	1,814	1,692	1,582	1,523
1941	W	1,478	1,469	1,574	1,690	1,690	1,690	1,718	1,687	1,804	1,701	1,564	1,493
1942	W	1,433	1,428	1,511	1,511	1,646	1,690	1,718	1,845	2,030	1,948	1,828	1,761
1943	W	1,690	1,690	1,690	1,690	1,690	1,690	1,718	1,852	1,942	1,839	1,703	1,627
1944	BN	1,572	1,561	1,552	1,546	1,622	1,690	1,687	1,688	1,674	1,574	1,455	1,395
1945	AN	1,352	1,399	1,445	1,474	1,679	1,690	1,718	1,696	1,790	1,759	1,634	1,563
1946	AN	1,544	1,576	1,597	1,600	1,690	1,690	1,698	1,647	1,670	1,523	1,385	1,315
1947	D	1,263	1,282	1,314	1,328	1,370	1,400	1,379	1,410	1,342	1,222	1,117	1,070
1948	BN	1,054	1,055	1,094	1,105	1,116	1,197	1,265	1,270	1,317	1,264	1,183	1,149
1949	BN	1,118	1,113	1,112	1,108	1,141	1,310	1,346	1,345	1,330	1,237	1,155	1,122
1950	BN	1,090	1,086	1,089	1,125	1,267	1,391	1,442	1,404	1,456	1,375	1,293	1,254

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1951	AN	1,238	1,653	1,690	1,690	1,690	1,690	1,686	1,558	1,515	1,373	1,243	1,177
1952	W	1,133	1,139	1,259	1,495	1,664	1,690	1,718	2,002	2,030	1,940	1,831	1,773
1953	BN	1,690	1,679	1,690	1,690	1,690	1,690	1,671	1,664	1,710	1,676	1,549	1,486
1954	BN	1,441	1,442	1,444	1,452	1,489	1,571	1,596	1,680	1,658	1,530	1,416	1,361
1955	D	1,319	1,318	1,337	1,373	1,421	1,501	1,522	1,482	1,371	1,251	1,142	1,092
1956	W	1,057	1,055	1,618	1,651	1,690	1,690	1,718	1,707	1,942	1,842	1,712	1,643
1957	BN	1,596	1,586	1,582	1,578	1,620	1,675	1,645	1,656	1,742	1,617	1,498	1,436
1958	W	1,396	1,393	1,409	1,434	1,558	1,690	1,718	2,002	2,030	1,953	1,847	1,773
1959	D	1,690	1,674	1,657	1,685	1,690	1,690	1,680	1,613	1,484	1,328	1,194	1,152
1960	C	1,104	1,099	1,125	1,126	1,234	1,276	1,295	1,264	1,162	1,063	984	951
1961	C	925	925	1,010	1,019	1,038	1,035	991	897	803	719	653	625
1962	BN	600	594	623	634	789	888	908	1,004	1,179	1,200	1,158	1,145
1963	AN	1,134	1,135	1,153	1,200	1,326	1,351	1,421	1,544	1,711	1,726	1,641	1,598
1964	D	1,562	1,611	1,628	1,652	1,680	1,688	1,689	1,637	1,552	1,410	1,287	1,231
1965	W	1,193	1,215	1,641	1,690	1,690	1,690	1,718	1,669	1,666	1,678	1,579	1,505
1966	BN	1,447	1,520	1,518	1,518	1,602	1,627	1,602	1,615	1,501	1,363	1,243	1,193
1967	W	1,152	1,185	1,338	1,440	1,509	1,619	1,718	1,945	2,030	1,952	1,864	1,773
1968	D	1,690	1,677	1,675	1,680	1,690	1,690	1,649	1,634	1,546	1,389	1,262	1,197
1969	W	1,154	1,181	1,270	1,690	1,690	1,690	1,718	2,002	2,030	1,926	1,802	1,734
1970	AN	1,684	1,688	1,690	1,690	1,690	1,690	1,679	1,700	1,683	1,564	1,437	1,371
1971	BN	1,320	1,361	1,447	1,514	1,571	1,631	1,627	1,646	1,694	1,623	1,513	1,462
1972	D	1,420	1,430	1,477	1,530	1,580	1,589	1,558	1,524	1,484	1,352	1,243	1,192
1973	AN	1,156	1,168	1,249	1,381	1,534	1,646	1,650	1,824	1,863	1,741	1,634	1,578
1974	W	1,538	1,615	1,614	1,616	1,685	1,690	1,718	1,856	1,963	1,849	1,721	1,657
1975	W	1,610	1,601	1,603	1,610	1,690	1,690	1,718	1,716	1,929	1,833	1,712	1,646
1976	C	1,592	1,602	1,620	1,597	1,604	1,600	1,544	1,392	1,270	1,126	1,014	966
1977	C	929	922	943	932	940	925	867	794	697	616	554	528
1978	W	504	502	559	712	841	981	1,083	1,273	1,657	1,845	1,800	1,773
1979	AN	1,690	1,690	1,690	1,690	1,690	1,690	1,694	1,885	1,912	1,766	1,632	1,566
1980	W	1,524	1,525	1,544	1,690	1,690	1,690	1,717	1,838	2,019	1,975	1,853	1,773

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1981	D	1,690	1,674	1,669	1,678	1,690	1,690	1,691	1,618	1,531	1,380	1,262	1,207
1982	W	1,178	1,284	1,433	1,639	1,690	1,690	1,718	2,002	2,030	1,959	1,857	1,736
1983	W	1,670	1,690	1,689	1,689	1,690	1,690	1,718	1,996	2,030	2,030	1,918	1,773
1984	AN	1,690	1,690	1,688	1,688	1,690	1,690	1,665	1,628	1,640	1,522	1,384	1,311
1985	D	1,268	1,302	1,345	1,337	1,381	1,436	1,406	1,447	1,389	1,275	1,185	1,150
1986	W	1,129	1,150	1,225	1,295	1,663	1,690	1,718	1,924	2,030	1,996	1,896	1,773
1987	C	1,690	1,675	1,662	1,636	1,649	1,663	1,592	1,469	1,354	1,203	1,080	1,020
1988	C	983	982	1,020	1,075	1,128	1,123	1,057	961	897	805	731	698
1989	C	671	678	711	742	773	818	841	932	970	904	851	843
1990	C	861	864	891	905	945	955	903	871	835	755	688	663
1991	C	639	637	662	664	659	695	714	715	777	747	715	705
1992	C	698	701	731	746	808	838	817	862	830	802	747	715
1993	W	693	689	736	952	1,070	1,208	1,262	1,499	1,671	1,642	1,580	1,550
1994	C	1,516	1,503	1,496	1,496	1,512	1,508	1,444	1,356	1,276	1,151	1,051	1,002
1995	W	958	977	1,021	1,282	1,340	1,688	1,718	2,002	2,030	2,015	1,946	1,773
1996	W	1,690	1,672	1,690	1,690	1,690	1,690	1,718	1,927	1,998	1,895	1,759	1,695
1997	W	1,639	1,679	1,678	1,678	1,690	1,690	1,650	1,786	1,806	1,682	1,553	1,511
1998	W	1,455	1,447	1,447	1,610	1,690	1,690	1,718	1,808	2,030	1,977	1,869	1,773
1999	AN	1,690	1,690	1,690	1,690	1,690	1,690	1,718	1,686	1,779	1,664	1,535	1,472
2000	AN	1,415	1,406	1,394	1,471	1,646	1,690	1,682	1,809	1,850	1,721	1,607	1,554
2001	D	1,511	1,500	1,493	1,489	1,511	1,561	1,531	1,568	1,464	1,334	1,225	1,177
2002	D	1,141	1,152	1,225	1,284	1,321	1,333	1,299	1,390	1,390	1,282	1,192	1,150
2003	BN	1,123	1,160	1,218	1,288	1,323	1,334	1,357	1,355	1,430	1,335	1,251	1,216

**Table 16. LSJR Alternative 3 Monthly Average Flow at Modesto on the Tuolumne River in cfs and February–June Flow Volume in TAF**

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Feb-Jun [TAF]
1922	W	1,872	711	770	603	1,361	1,177	1,991	3,500	7,791	1,913	566	1,024	945
1923	AN	1,344	681	1,947	2,043	1,931	1,262	2,410	3,389	2,144	575	566	587	664
1924	C	732	605	580	579	285	247	934	1,360	200	331	342	353	183
1925	BN	428	442	440	427	1,635	1,080	2,353	3,500	2,366	380	389	408	653
1926	D	547	500	476	464	727	833	2,568	1,978	598	379	389	405	402
1927	AN	479	449	452	456	1,606	1,041	2,366	2,953	3,200	556	568	582	666
1928	BN	733	615	613	601	570	3,083	1,791	2,914	1,028	378	388	410	569
1929	C	547	495	477	468	288	644	995	2,459	1,512	333	341	363	356
1930	C	459	466	438	436	504	956	1,654	1,789	1,923	344	351	368	410
1931	C	456	453	449	437	324	429	1,035	1,360	329	334	344	354	209
1932	AN	424	437	430	427	1,669	1,119	1,647	3,409	3,500	577	568	578	681
1933	D	736	630	591	582	223	533	1,149	1,633	2,864	384	393	414	384
1934	C	482	471	451	434	648	976	1,250	969	639	331	341	353	268
1935	AN	435	445	437	436	771	891	3,126	3,454	3,435	562	565	587	700
1936	AN	733	609	597	593	2,448	2,572	3,204	3,383	2,622	611	565	582	854
1937	W	732	621	600	590	3,211	4,151	2,745	3,500	2,682	555	566	586	972
1938	W	732	618	1,922	1,613	5,687	7,439	4,391	3,500	7,496	3,684	572	597	1,696
1939	D	1,288	710	834	661	1,181	1,537	1,896	1,405	497	384	397	412	389
1940	AN	482	470	440	434	1,738	3,214	3,599	3,500	2,339	625	514	528	866
1941	W	640	526	755	1,713	4,985	4,511	2,877	3,500	3,500	2,545	618	547	1,149
1942	W	689	574	648	3,278	1,023	1,700	3,165	3,070	4,420	3,292	735	704	801
1943	W	1,061	1,259	1,395	3,701	3,230	5,817	3,128	3,220	2,373	1,073	501	436	1,062
1944	BN	753	584	626	650	556	931	1,102	2,966	1,795	414	405	359	444
1945	AN	526	453	389	529	2,197	3,471	2,184	2,960	3,106	688	634	572	832
1946	AN	684	466	3,746	2,702	1,385	2,942	2,339	3,175	1,781	637	600	580	698
1947	D	660	576	675	615	576	885	1,291	2,290	746	322	352	345	348
1948	BN	480	454	398	393	200	475	1,486	2,836	2,917	489	407	344	477
1949	BN	519	468	412	519	281	800	2,138	2,843	1,613	354	359	343	463

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Feb-Jun [TAF]
1950	BN	525	475	463	686	893	833	2,212	3,044	2,144	395	379	370	547
1951	AN	513	206	7,482	3,871	3,693	2,576	1,707	2,426	1,728	422	399	370	717
1952	W	461	400	475	846	1,029	3,120	3,550	4,243	6,742	3,733	617	638	1,124
1953	BN	1,187	479	627	1,999	1,249	1,434	1,815	1,685	2,783	519	433	400	535
1954	BN	460	400	391	397	735	1,386	2,346	2,914	1,244	373	379	369	519
1955	D	468	385	420	702	439	540	968	2,387	1,963	338	352	341	379
1956	W	395	372	441	6,886	3,477	3,278	1,896	3,500	3,500	2,933	681	574	938
1957	BN	697	478	491	518	893	1,002	1,163	2,472	2,722	399	408	405	494
1958	W	489	380	432	561	1,275	2,818	4,746	3,651	7,200	2,724	672	1,005	1,179
1959	D	1,242	519	581	624	2,723	1,869	1,506	1,509	934	349	333	366	504
1960	C	461	364	307	362	828	969	1,600	1,978	1,096	275	295	321	389
1961	C	310	330	282	337	331	462	1,109	1,431	820	236	256	235	250
1962	BN	298	314	323	314	1,678	904	2,615	2,355	2,998	358	396	408	628
1963	AN	464	273	315	425	2,226	729	1,667	3,474	3,112	527	500	515	666
1964	D	548	381	400	518	362	488	1,136	2,101	1,512	256	268	280	338
1965	W	343	266	234	4,826	3,517	3,001	3,051	2,921	3,200	543	565	717	931
1966	BN	585	491	2,109	1,104	540	950	2,010	2,309	578	246	242	242	384
1967	W	389	267	318	582	828	1,991	1,972	3,500	8,041	6,505	589	1,180	979
1968	D	1,178	449	485	515	1,490	1,429	1,257	1,874	948	350	338	330	420
1969	W	398	367	288	1,749	5,430	3,612	4,224	6,457	9,022	3,812	459	508	1,709
1970	AN	1,216	761	1,478	5,997	2,558	2,743	1,082	2,674	2,259	432	360	426	674
1971	BN	673	503	532	524	677	950	1,304	2,270	2,810	333	350	358	480
1972	D	515	322	524	367	542	1,184	1,049	2,238	1,479	276	286	284	392
1973	AN	315	451	522	524	1,340	1,125	1,741	3,500	2,689	484	509	512	622
1974	W	560	745	2,027	2,864	497	3,382	2,078	3,500	2,971	1,039	475	657	751
1975	W	1,068	1,088	789	643	1,653	3,304	2,338	3,500	3,500	1,262	558	569	858
1976	C	1,352	812	584	543	264	462	672	1,360	269	245	278	280	183
1977	C	284	309	322	295	200	200	531	690	706	170	167	153	139
1978	W	217	243	251	432	1,412	2,153	2,380	3,500	3,500	415	446	1,195	776

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Feb-Jun [TAF]
1979	AN	1,217	796	660	2,657	3,629	3,900	1,748	3,500	2,117	547	625	516	887
1980	W	609	813	877	4,924	6,735	3,416	2,104	3,233	3,500	3,500	567	1,027	1,130
1981	D	1,191	775	519	693	812	1,663	1,633	2,134	1,015	321	348	341	436
1982	W	439	421	600	685	5,742	5,231	8,105	4,676	6,755	3,679	592	2,367	1,812
1983	W	3,175	3,291	5,340	5,281	6,686	9,282	2,911	3,500	13,779	7,492	2,862	2,413	2,150
1984	AN	1,746	5,959	7,476	4,168	3,358	3,073	1,365	3,487	2,218	558	597	599	810
1985	D	743	974	430	489	497	820	2,030	2,218	907	340	367	359	389
1986	W	334	363	356	284	3,500	7,392	2,660	3,500	4,650	648	541	2,070	1,299
1987	C	1,846	1,300	566	596	266	644	1,304	1,321	437	256	265	253	239
1988	C	242	259	254	305	396	683	1,069	1,386	659	175	190	177	253
1989	C	194	220	245	244	439	1,854	2,077	2,088	1,391	187	203	212	473
1990	C	215	245	232	236	382	846	1,479	1,184	672	199	221	212	274
1991	C	214	239	223	208	200	1,093	1,210	2,186	1,983	183	201	188	403
1992	C	210	239	217	224	647	748	1,546	1,229	309	169	174	175	269
1993	W	213	208	217	781	1,160	2,075	2,252	3,500	3,500	2,059	326	404	749
1994	C	581	448	413	399	382	703	1,311	1,789	800	188	201	186	300
1995	W	230	218	223	518	1,152	3,500	4,148	3,660	11,192	8,340	1,781	2,735	1,417
1996	W	1,267	451	577	1,743	5,924	4,515	2,441	3,500	2,615	794	483	533	1,134
1997	W	592	525	6,295	17,734	3,473	3,362	1,862	3,500	2,259	499	486	486	860
1998	W	693	337	431	899	5,817	4,745	3,206	3,103	7,904	6,736	517	1,114	1,467
1999	AN	1,455	708	930	2,026	4,973	3,535	2,171	3,500	2,931	497	501	506	1,012
2000	AN	591	442	344	433	1,926	2,764	2,245	3,500	2,165	488	691	721	758
2001	D	692	465	418	518	432	1,164	1,526	2,654	370	293	314	300	372
2002	D	322	243	383	427	569	917	2,023	2,420	1,499	279	326	296	446
2003	BN	315	247	294	264	468	807	1,465	3,383	2,501	228	283	269	520

**Table 17. LSJR Alternative 3 End-of-Month Storage at New Exchequer on the Merced River in TAF from 1922–2003**

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1922	W	469	456	483	506	631	706	719	842	998	913	793	734
1923	AN	675	674	675	675	675	692	730	812	821	766	633	560
1924	C	527	520	512	507	520	522	517	492	402	308	232	198
1925	BN	178	183	189	195	277	326	425	555	595	585	555	538
1926	D	523	516	512	507	546	568	603	550	526	498	455	424
1927	AN	401	389	394	383	377	398	392	492	523	538	554	589
1928	BN	590	586	599	613	635	605	583	614	600	577	562	572
1929	C	561	548	535	524	540	547	542	488	441	435	435	413
1930	C	390	377	364	353	352	324	322	300	282	301	320	328
1931	C	309	301	291	285	304	319	329	335	287	220	166	144
1932	AN	125	114	175	209	330	377	429	537	628	629	588	567
1933	D	549	537	527	527	538	558	567	569	594	518	434	398
1934	C	375	363	364	382	420	456	475	454	406	328	264	234
1935	AN	214	219	226	291	331	386	521	653	747	719	669	643
1936	AN	623	616	608	632	675	726	791	874	869	804	673	608
1937	W	559	549	553	560	675	735	790	948	980	887	765	704
1938	W	674	665	675	675	675	735	817	970	1,024	918	785	719
1939	D	675	675	675	673	675	713	755	735	653	545	447	407
1940	AN	394	384	374	485	581	662	753	872	882	810	731	673
1941	W	642	631	656	656	675	735	794	970	1,024	922	790	728
1942	W	675	674	675	675	675	726	785	862	981	875	741	677
1943	W	646	658	658	658	675	735	821	907	915	830	696	632
1944	BN	600	588	580	584	624	669	674	740	741	676	595	554
1945	AN	527	545	561	570	675	735	784	877	905	814	689	629
1946	AN	594	606	606	606	639	686	742	829	812	734	652	614
1947	D	587	599	599	599	632	660	677	696	631	534	444	405
1948	BN	385	380	370	367	376	392	426	508	576	534	476	443
1949	BN	424	411	403	397	419	462	521	599	599	533	469	441
1950	BN	420	408	398	420	464	492	561	624	641	576	508	476

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1951	AN	457	675	675	675	675	724	760	786	760	671	577	532
1952	W	506	498	541	608	657	735	816	970	1,024	927	801	738
1953	BN	675	665	675	675	675	692	717	712	708	637	542	498
1954	BN	471	459	449	452	488	540	617	692	668	596	516	484
1955	D	460	447	448	461	482	498	505	568	575	506	433	403
1956	W	379	365	675	675	675	731	779	882	970	863	730	664
1957	BN	629	624	616	614	647	678	687	729	747	662	574	531
1958	W	505	497	502	519	597	709	845	970	1,024	938	823	765
1959	D	675	663	650	655	675	699	726	714	645	536	440	416
1960	C	395	380	366	358	402	434	481	523	498	432	371	345
1961	C	324	315	313	305	321	336	361	377	350	287	232	209
1962	BN	188	174	168	161	282	355	468	562	652	654	617	598
1963	AN	584	570	559	585	675	711	756	849	901	860	786	748
1964	D	675	675	675	675	675	681	680	685	636	534	438	397
1965	W	367	369	576	643	675	701	753	824	875	847	711	648
1966	BN	616	629	629	629	655	686	737	771	707	608	520	485
1967	W	462	459	555	599	638	731	822	970	1,024	930	806	746
1968	D	675	665	662	663	675	696	712	712	649	537	444	407
1969	W	381	388	410	675	675	735	845	970	1,024	916	783	717
1970	AN	673	675	675	675	675	735	749	807	790	702	612	573
1971	BN	550	553	587	621	649	675	692	735	758	693	614	578
1972	D	556	547	570	579	610	648	663	700	677	585	503	476
1973	AN	463	459	475	528	640	717	762	960	1,003	914	795	738
1974	W	675	675	675	675	675	735	789	916	943	832	697	633
1975	W	591	582	581	592	672	735	763	876	1,002	903	774	711
1976	C	670	675	673	663	675	680	667	643	557	445	358	327
1977	C	305	287	273	259	259	250	243	226	199	144	97	75
1978	W	54	38	54	150	270	400	526	742	985	948	871	817
1979	AN	675	675	669	675	675	735	773	905	895	807	683	619
1980	W	582	572	571	594	675	735	796	895	982	884	757	697



YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1981	D	666	647	636	639	661	690	715	738	684	585	498	462
1982	W	440	468	514	628	675	735	845	970	1,024	925	798	724
1983	W	675	675	675	675	675	735	787	970	1,024	920	786	715
1984	AN	665	675	675	675	675	730	764	849	824	750	667	628
1985	D	606	613	618	619	648	672	715	743	685	588	500	466
1986	W	447	444	459	485	675	735	821	953	1,024	941	827	768
1987	C	675	658	644	634	650	665	679	664	591	489	405	371
1988	C	343	339	334	344	359	381	404	417	386	329	275	253
1989	C	232	220	217	210	226	284	350	387	374	334	302	293
1990	C	287	281	272	272	288	311	344	347	310	257	207	185
1991	C	164	149	135	121	115	174	205	271	313	299	276	266
1992	C	248	243	236	232	276	301	353	368	331	305	267	258
1993	W	238	228	231	401	471	559	627	834	933	860	749	693
1994	C	660	646	637	630	652	657	655	639	581	472	386	343
1995	W	326	330	337	522	571	735	809	970	1,024	939	822	763
1996	W	675	662	671	675	675	735	796	906	899	814	681	615
1997	W	568	580	580	580	658	735	796	890	875	800	724	687
1998	W	658	649	648	670	675	735	811	881	1,024	922	791	722
1999	AN	675	674	675	675	675	703	723	813	805	710	617	575
2000	AN	544	534	522	562	673	735	783	887	872	783	699	659
2001	D	610	600	593	589	611	658	679	725	653	553	466	439
2002	D	409	403	434	459	480	502	551	602	576	491	415	381
2003	BN	353	366	383	407	426	452	480	585	608	544	482	449

**Table 18. LSJR Alternative 3 Monthly Average Flow at Stevinson on the Merced River in cfs and February–June Flow Volume in TAF**

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Feb-Jun [TAF]
1922	W	636	390	504	482	1,174	761	834	2,000	2,000	1,387	867	453	404
1923	AN	850	304	1,169	1,273	1,004	364	1,062	1,874	1,042	159	762	598	319
1924	C	593	385	382	396	150	150	450	592	150	54	36	49	90
1925	BN	282	419	425	428	763	501	1,210	1,698	988	116	77	54	308
1926	D	266	354	375	375	454	358	1,459	1,125	323	51	37	51	222
1927	AN	274	322	313	381	987	566	1,203	1,926	1,519	136	84	89	370
1928	BN	426	352	389	361	334	1,034	955	1,340	457	179	88	80	249
1929	C	296	387	387	408	158	306	524	1,256	652	49	54	92	175
1930	C	276	367	359	361	187	475	793	891	753	35	35	93	186
1931	C	276	385	372	382	150	169	497	598	150	87	41	75	94
1932	AN	266	363	475	469	1,057	514	881	1,808	1,687	109	57	58	356
1933	D	310	386	383	426	150	280	592	865	1,203	60	41	30	186
1934	C	298	383	405	466	324	423	618	364	222	85	36	29	116
1935	AN	282	389	409	580	360	559	1,849	2,000	1,734	182	100	55	391
1936	AN	368	410	385	428	3,862	651	1,472	1,945	1,096	108	807	441	535
1937	W	707	424	417	416	2,367	1,072	1,096	2,000	1,291	597	812	446	462
1938	W	442	401	2,249	1,343	4,915	4,515	1,539	2,893	4,669	2,238	1,159	596	1,098
1939	D	935	475	415	443	665	462	1,015	657	215	67	73	68	179
1940	AN	331	424	418	573	939	963	1,223	1,984	941	145	188	416	364
1941	W	459	427	1,286	1,340	2,774	1,616	1,062	2,254	2,525	1,749	1,069	508	605
1942	W	925	447	1,389	1,528	1,706	585	1,244	1,841	2,000	1,651	1,021	509	437
1943	W	494	549	783	2,172	1,688	3,106	1,472	1,900	1,022	534	941	490	550
1944	BN	475	459	436	414	327	527	538	1,626	894	172	136	88	236
1945	AN	357	489	446	441	1,700	751	1,049	1,717	1,385	878	937	421	391
1946	AN	840	640	1,862	1,067	238	533	1,297	1,704	766	170	129	81	274
1947	D	577	532	963	621	288	403	699	1,119	343	65	80	76	172
1948	BN	319	397	398	388	150	221	719	1,535	1,459	182	100	97	246
1949	BN	348	404	386	402	166	507	955	1,542	753	121	121	70	237

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Feb-Jun [TAF]
1950	BN	326	394	394	428	439	345	1,156	1,516	840	162	130	77	258
1951	AN	329	797	4,464	1,736	1,628	559	874	1,145	699	186	116	63	289
1952	W	347	417	460	1,986	452	1,413	1,385	3,361	3,356	1,942	1,231	621	602
1953	BN	979	428	379	1,239	720	267	807	794	1,062	140	126	55	216
1954	BN	360	405	403	406	346	644	1,143	1,451	497	167	131	81	246
1955	D	314	392	409	537	166	234	437	1,262	921	120	113	55	182
1956	W	311	386	1,096	4,365	1,970	572	1,035	2,000	1,929	1,954	1,152	610	448
1957	BN	580	422	409	411	295	410	592	1,301	1,183	195	154	81	227
1958	W	424	381	405	481	598	1,060	1,938	3,609	3,164	1,720	1,123	675	624
1959	D	1,501	395	382	395	804	358	793	729	343	107	116	94	179
1960	C	307	374	383	397	382	397	840	956	430	101	127	49	181
1961	C	286	365	387	372	150	195	565	618	296	70	55	40	110
1962	BN	264	341	359	360	1,145	481	1,331	1,340	1,378	253	182	78	337
1963	AN	346	362	376	376	1,586	397	881	1,743	1,412	277	194	158	356
1964	D	1,161	736	460	487	417	182	511	911	544	163	114	77	154
1965	W	346	356	528	1,780	653	449	1,109	1,685	1,627	309	1,448	634	330
1966	BN	474	866	812	1,055	230	423	1,069	1,184	316	206	165	79	194
1967	W	293	366	400	408	367	1,093	1,432	2,275	4,389	4,063	1,494	797	574
1968	D	1,425	411	330	382	742	312	632	787	336	196	177	130	168
1969	W	275	431	434	2,014	4,183	1,306	1,789	5,552	4,269	2,433	1,233	711	1,014
1970	AN	825	352	589	2,940	1,251	838	598	1,418	854	256	222	150	295
1971	BN	383	375	359	425	281	384	659	1,190	1,210	256	188	102	224
1972	D	359	386	423	270	236	533	538	1,086	645	240	222	18	184
1973	AN	309	412	432	474	900	748	881	2,000	1,351	600	1,038	574	352
1974	W	1,101	984	1,099	1,692	857	1,064	1,082	2,000	1,365	841	1,054	586	382
1975	W	667	350	409	307	778	1,004	659	2,000	2,000	1,163	1,062	533	386
1976	C	1,107	374	362	392	209	215	329	605	150	175	205	136	91
1977	C	354	311	322	373	150	150	208	254	309	106	81	44	64
1978	W	268	282	350	516	1,066	1,223	1,573	2,000	2,000	2,613	1,294	1,369	470

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Feb-Jun [TAF]
1979	AN	2,383	601	441	1,746	1,919	1,266	887	2,000	1,042	262	731	443	422
1980	W	698	374	392	3,976	3,121	1,442	1,156	1,861	1,943	2,284	1,248	583	567
1981	D	629	398	444	479	194	338	820	1,034	464	168	168	97	172
1982	W	401	405	414	484	2,829	2,087	4,484	3,519	2,127	2,249	1,390	1,170	895
1983	W	1,477	1,960	2,301	3,658	4,403	5,817	1,324	2,385	7,498	5,943	2,444	1,100	1,274
1984	AN	1,196	2,062	3,552	1,904	1,583	631	867	1,724	766	291	277	217	333
1985	D	580	338	334	488	238	384	988	1,112	383	236	206	100	187
1986	W	405	395	408	380	3,278	3,965	1,284	2,000	1,646	946	1,113	737	723
1987	C	1,631	416	418	381	150	234	639	618	168	130	135	87	109
1988	C	356	340	375	377	167	312	625	696	370	97	92	52	131
1989	C	256	274	322	304	166	625	1,076	859	491	68	62	67	194
1990	C	305	303	327	310	151	364	766	566	323	72	68	26	130
1991	C	248	258	274	292	150	625	544	1,197	975	91	54	10	211
1992	C	270	289	297	291	376	332	881	683	208	76	55	11	149
1993	W	206	313	350	684	720	1,021	1,217	2,000	1,882	1,492	1,085	640	410
1994	C	739	369	334	315	202	260	585	761	289	48	54	2	126
1995	W	239	327	317	611	504	2,987	1,385	2,557	5,453	4,891	1,700	509	776
1996	W	1,452	379	365	1,071	2,997	1,408	1,324	2,000	1,055	374	903	480	523
1997	W	613	845	3,494	9,912	735	980	1,136	1,808	766	149	114	84	325
1998	W	369	336	356	1,396	5,117	1,864	1,351	1,633	3,528	4,614	1,499	759	790
1999	AN	961	382	496	826	2,021	436	860	1,834	1,035	174	196	100	365
2000	AN	285	345	318	325	1,189	1,020	1,116	1,795	874	175	112	59	360
2001	D	668	496	392	389	223	559	726	1,399	222	74	84	25	189
2002	D	239	403	390	449	252	384	1,015	1,158	571	90	61	2	203
2003	BN	227	316	353	327	245	403	753	1,756	1,143	80	66	41	259

## **LSJR Alternative 4 (60% Unimpaired Flow)**

**Table 19. LSJR Alternative 4 End-of-Month Storage at New Melones on the Stanislaus River in TAF from 1922–2003**

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1922	W	954	964	994	1,027	1,091	1,125	1,117	1,284	1,447	1,444	1,398	1,367
1923	AN	1,305	1,317	1,385	1,449	1,478	1,482	1,463	1,528	1,529	1,505	1,441	1,405
1924	C	1,344	1,341	1,354	1,369	1,349	1,289	1,229	1,132	1,059	994	928	903
1925	BN	845	845	855	867	927	952	917	984	993	989	944	926
1926	D	874	873	879	884	918	922	892	840	799	745	699	675
1927	AN	634	646	696	740	796	814	839	903	918	898	861	852
1928	BN	808	839	862	880	912	962	933	957	927	875	825	803
1929	C	757	764	775	784	777	767	740	657	602	560	521	499
1930	C	455	456	457	477	493	519	480	420	409	383	354	336
1931	C	327	339	340	356	343	338	292	211	194	173	147	138
1932	AN	119	124	175	213	256	253	218	322	386	416	406	395
1933	D	388	389	397	413	386	390	369	319	282	258	235	221
1934	C	213	225	243	271	289	286	238	176	155	136	113	104
1935	AN	84	85	96	135	142	171	222	369	416	425	410	401
1936	AN	389	401	416	496	590	602	643	748	798	788	759	745
1937	W	702	708	721	744	793	849	836	958	983	954	916	895
1938	W	849	854	937	1,016	1,122	1,235	1,335	1,619	1,825	1,836	1,792	1,686
1939	D	1,625	1,620	1,624	1,637	1,647	1,638	1,563	1,475	1,414	1,346	1,280	1,237
1940	AN	1,171	1,167	1,174	1,274	1,320	1,355	1,391	1,492	1,480	1,425	1,370	1,336
1941	W	1,275	1,278	1,314	1,368	1,413	1,458	1,456	1,621	1,669	1,651	1,596	1,557
1942	W	1,495	1,496	1,540	1,632	1,680	1,706	1,699	1,799	1,889	1,883	1,810	1,768
1943	W	1,705	1,719	1,743	1,832	1,892	1,996	2,033	2,054	2,048	1,993	1,918	1,865
1944	BN	1,794	1,786	1,784	1,784	1,809	1,829	1,795	1,684	1,640	1,574	1,497	1,450
1945	AN	1,388	1,421	1,448	1,485	1,526	1,566	1,509	1,575	1,596	1,566	1,503	1,467
1946	AN	1,406	1,433	1,519	1,584	1,637	1,639	1,625	1,681	1,663	1,602	1,540	1,507
1947	D	1,446	1,467	1,489	1,505	1,524	1,524	1,474	1,370	1,320	1,252	1,190	1,161
1948	BN	1,113	1,108	1,108	1,112	1,087	1,105	1,076	1,024	1,051	1,024	981	960
1949	BN	914	922	933	942	939	963	913	875	862	820	782	760
1950	BN	710	699	701	749	786	818	758	826	872	851	819	801

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1951	AN	756	1,029	1,418	1,526	1,589	1,638	1,637	1,653	1,620	1,557	1,495	1,458
1952	W	1,396	1,408	1,461	1,601	1,641	1,697	1,699	1,981	2,144	2,157	2,095	2,000
1953	BN	1,923	1,921	1,937	1,970	1,970	1,983	1,908	1,861	1,860	1,826	1,752	1,705
1954	BN	1,637	1,645	1,658	1,673	1,691	1,687	1,613	1,621	1,570	1,500	1,432	1,391
1955	D	1,338	1,343	1,360	1,391	1,405	1,416	1,386	1,267	1,223	1,162	1,106	1,068
1956	W	1,019	1,023	1,269	1,530	1,620	1,666	1,677	1,794	1,861	1,847	1,786	1,758
1957	BN	1,688	1,698	1,713	1,733	1,756	1,767	1,718	1,674	1,662	1,599	1,537	1,489
1958	W	1,398	1,409	1,416	1,467	1,501	1,567	1,659	1,910	2,024	2,013	1,954	1,909
1959	D	1,844	1,851	1,862	1,889	1,923	1,930	1,869	1,765	1,693	1,620	1,549	1,512
1960	C	1,443	1,444	1,449	1,455	1,482	1,486	1,431	1,342	1,284	1,214	1,153	1,103
1961	C	1,025	1,036	1,050	1,054	1,047	1,051	1,016	944	883	829	776	746
1962	BN	723	723	726	736	778	799	747	739	730	720	684	656
1963	AN	643	654	674	732	758	791	790	934	989	984	951	940
1964	D	896	926	947	982	996	1,013	988	912	874	827	787	754
1965	W	732	750	964	1,171	1,226	1,258	1,295	1,380	1,407	1,414	1,374	1,353
1966	BN	1,290	1,322	1,356	1,396	1,432	1,434	1,366	1,358	1,307	1,238	1,181	1,138
1967	W	1,086	1,094	1,176	1,279	1,322	1,339	1,394	1,565	1,816	1,918	1,875	1,845
1968	D	1,780	1,787	1,798	1,823	1,852	1,857	1,806	1,734	1,671	1,593	1,517	1,466
1969	W	1,415	1,438	1,450	1,747	1,882	1,981	2,104	2,346	2,420	2,300	2,130	2,000
1970	AN	1,935	1,938	1,950	1,956	1,970	2,028	2,022	1,990	1,969	1,888	1,803	1,761
1971	BN	1,697	1,724	1,792	1,850	1,872	1,892	1,860	1,838	1,830	1,782	1,709	1,667
1972	D	1,596	1,612	1,660	1,697	1,716	1,705	1,654	1,606	1,546	1,471	1,401	1,366
1973	AN	1,317	1,320	1,346	1,459	1,552	1,602	1,567	1,649	1,656	1,595	1,530	1,501
1974	W	1,453	1,497	1,574	1,689	1,755	1,800	1,847	1,945	1,957	1,909	1,838	1,796
1975	W	1,735	1,747	1,771	1,799	1,833	1,886	1,901	1,898	1,997	1,954	1,884	1,839
1976	C	1,777	1,798	1,819	1,829	1,831	1,832	1,780	1,682	1,597	1,512	1,435	1,385
1977	C	1,322	1,318	1,313	1,302	1,265	1,217	1,176	1,110	1,054	969	887	846
1978	W	797	781	796	876	911	929	929	999	1,043	1,066	1,029	1,033
1979	AN	983	992	1,010	1,079	1,147	1,195	1,176	1,255	1,227	1,169	1,117	1,095
1980	W	1,046	1,062	1,075	1,381	1,531	1,575	1,618	1,670	1,715	1,726	1,663	1,625

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1981	D	1,576	1,573	1,584	1,625	1,631	1,640	1,582	1,489	1,406	1,334	1,273	1,247
1982	W	1,198	1,253	1,386	1,592	1,770	1,883	2,085	2,197	2,217	2,141	2,000	1,852
1983	W	1,779	1,786	1,787	1,794	1,942	2,030	2,036	2,154	2,420	2,300	2,130	1,978
1984	AN	1,925	1,932	1,933	1,939	1,970	2,027	2,001	1,989	1,960	1,897	1,831	1,794
1985	D	1,734	1,763	1,797	1,805	1,837	1,851	1,781	1,711	1,644	1,565	1,501	1,474
1986	W	1,431	1,438	1,455	1,534	1,902	2,030	2,033	2,046	2,043	1,983	1,924	1,903
1987	C	1,844	1,848	1,855	1,847	1,828	1,830	1,766	1,651	1,573	1,502	1,443	1,415
1988	C	1,342	1,323	1,312	1,315	1,312	1,289	1,230	1,148	1,096	1,047	1,001	963
1989	C	926	905	896	897	901	892	815	757	730	707	686	684
1990	C	691	696	713	726	737	731	670	598	554	516	493	483
1991	C	460	455	467	465	439	449	436	374	321	292	265	268
1992	C	256	257	274	284	307	311	262	192	178	162	148	155
1993	W	151	152	171	323	376	403	371	431	456	476	466	462
1994	C	471	491	524	557	571	550	502	409	371	328	291	275
1995	W	257	260	289	478	527	718	783	996	1,204	1,390	1,401	1,414
1996	W	1,393	1,406	1,443	1,526	1,587	1,687	1,661	1,730	1,724	1,671	1,621	1,591
1997	W	1,551	1,577	1,741	1,888	1,970	2,030	1,991	1,969	1,925	1,860	1,796	1,777
1998	W	1,731	1,745	1,775	1,890	1,970	2,013	1,998	1,990	2,156	2,214	2,064	1,942
1999	AN	1,874	1,877	1,881	1,887	1,959	2,024	2,007	1,982	1,945	1,882	1,824	1,793
2000	AN	1,756	1,759	1,771	1,822	1,840	1,869	1,812	1,737	1,694	1,628	1,575	1,556
2001	D	1,510	1,529	1,564	1,577	1,605	1,593	1,534	1,429	1,370	1,293	1,223	1,180
2002	D	1,121	1,118	1,153	1,198	1,203	1,215	1,147	1,053	980	923	876	857
2003	BN	822	834	884	934	949	951	919	865	836	801	770	756



**Table 20. LSJR Alternative 4 Monthly Average Flow at Ripon on the Stanislaus River in cfs and February–June Flow Volume in TAF**

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Feb-Jun [TAF]
1922	W	1,377	443	447	335	1,156	1,005	1,714	2,500	2,500	377	439	436	530
1923	AN	1,207	444	493	356	594	751	2,087	2,500	1,623	511	456	493	454
1924	C	1,341	367	311	280	775	861	706	829	345	404	428	423	211
1925	BN	1,009	439	395	297	1,653	1,171	2,500	2,500	1,734	442	439	434	569
1926	D	1,066	369	311	267	799	771	2,178	1,356	413	454	439	434	329
1927	AN	1,007	505	338	314	1,750	1,308	2,500	2,500	2,470	426	439	434	627
1928	BN	1,076	431	387	295	501	2,469	2,158	2,342	676	441	439	434	493
1929	C	1,060	302	280	295	625	429	1,008	1,913	988	421	428	423	297
1930	C	993	313	250	308	519	1,015	1,855	1,649	1,341	435	428	423	383
1931	C	528	293	246	187	631	429	938	898	252	418	404	375	187
1932	AN	506	296	432	215	1,377	1,142	2,057	2,500	2,500	408	439	434	574
1933	D	537	356	291	220	879	371	1,069	1,737	2,077	434	367	386	366
1934	C	525	291	338	214	486	986	1,008	673	423	405	404	375	214
1935	AN	504	302	289	230	508	683	2,500	2,500	2,500	554	439	434	521
1936	AN	550	290	256	250	2,149	1,503	2,500	2,500	1,946	476	439	437	634
1937	W	1,012	356	353	314	1,188	1,210	1,936	2,500	1,684	476	439	434	510
1938	W	1,066	404	427	321	1,901	2,342	2,500	2,500	2,500	718	556	1,925	701
1939	D	1,396	547	471	420	356	722	1,805	1,073	444	438	439	449	264
1940	AN	1,204	266	225	371	1,805	2,500	2,500	2,500	1,563	511	456	486	653
1941	W	1,260	475	459	454	1,167	1,571	1,855	2,500	2,349	632	469	469	565
1942	W	1,271	678	474	323	1,113	1,025	2,500	2,500	2,500	785	594	641	576
1943	W	1,363	573	459	1,148	1,275	2,500	2,500	2,500	1,926	615	593	629	642
1944	BN	1,364	572	584	543	323	673	1,008	2,500	1,240	480	461	441	348
1945	AN	1,224	378	385	390	1,977	947	2,097	2,500	2,319	568	517	523	585
1946	AN	1,256	353	225	552	529	1,122	2,400	2,500	1,361	450	481	497	476
1947	D	1,212	343	347	404	486	917	1,371	1,776	625	437	393	394	311
1948	BN	1,026	432	383	362	890	371	1,573	2,500	2,491	506	439	404	469
1949	BN	980	367	355	318	674	595	1,956	2,500	1,160	455	409	380	413

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Feb-Jun [TAF]
1950	BN	954	411	421	338	789	927	2,500	2,500	1,956	447	405	409	520
1951	AN	952	461	534	573	1,221	1,239	1,765	2,039	1,149	444	400	361	443
1952	W	1,105	331	272	312	1,106	1,386	2,500	2,500	2,500	887	639	1,462	600
1953	BN	1,347	525	514	846	1,148	712	2,107	1,874	2,329	616	451	480	487
1954	BN	1,239	342	333	351	475	1,415	2,500	2,500	907	436	393	356	470
1955	D	996	322	355	475	400	527	1,028	2,235	1,492	443	357	359	342
1956	W	1,005	381	370	762	1,064	1,181	2,057	2,500	2,500	613	484	463	559
1957	BN	1,212	325	312	342	659	1,132	1,371	2,500	1,906	449	439	431	455
1958	W	1,218	369	353	327	1,264	1,678	2,500	2,500	2,500	678	586	633	625
1959	D	1,302	450	493	434	713	849	1,492	1,122	686	422	401	435	290
1960	C	1,162	337	316	343	636	995	1,623	1,532	716	406	384	341	331
1961	C	920	354	356	326	606	449	1,089	1,171	575	361	382	312	232
1962	BN	421	373	377	210	1,026	742	2,500	2,449	2,077	451	411	403	526
1963	AN	522	393	353	258	2,334	654	1,573	2,500	2,208	498	451	437	549
1964	D	1,021	348	286	347	557	488	1,230	1,786	1,069	425	379	383	309
1965	W	495	388	250	369	1,113	976	2,400	2,500	2,470	436	513	479	565
1966	BN	1,248	374	351	386	421	986	2,067	1,630	413	440	361	350	332
1967	W	991	299	288	276	875	1,913	1,775	2,500	2,500	948	582	670	574
1968	D	1,424	351	379	380	991	878	1,452	1,571	706	431	386	371	336
1969	W	1,059	319	339	422	1,955	1,503	2,500	2,500	3,146	2,518	2,194	1,776	691
1970	AN	1,450	537	905	4,835	2,658	1,395	1,240	2,488	1,734	468	480	559	563
1971	BN	1,262	269	280	336	767	1,064	1,734	2,332	2,107	568	493	536	480
1972	D	1,440	248	200	349	449	1,473	1,250	2,293	766	448	378	368	377
1973	AN	992	391	397	304	1,383	1,229	2,128	2,500	1,694	448	452	503	534
1974	W	1,076	284	273	263	691	1,952	2,491	2,500	2,107	557	500	649	586
1975	W	1,354	370	478	349	767	1,395	1,240	2,500	2,500	589	582	603	505
1976	C	1,157	471	297	368	644	420	756	966	262	429	347	328	183
1977	C	957	324	313	286	816	748	353	429	363	303	355	241	160
1978	W	473	263	275	256	1,167	2,176	2,500	2,500	2,500	546	459	479	650

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Feb-Jun [TAF]
1979	AN	1,118	468	411	219	1,167	1,561	2,077	2,500	1,432	459	450	430	523
1980	W	1,201	372	250	226	2,500	1,327	2,037	2,500	2,500	690	646	756	649
1981	D	1,381	576	496	503	432	800	1,654	1,610	575	442	372	393	305
1982	W	1,056	294	322	381	2,500	2,469	2,500	2,500	2,500	1,679	1,967	3,096	742
1983	W	2,256	2,519	3,187	4,124	2,500	5,533	2,148	2,500	4,493	4,982	3,015	3,113	1,028
1984	AN	1,830	3,321	5,140	2,085	1,699	1,337	1,583	2,500	1,492	628	668	813	517
1985	D	1,419	471	356	461	519	771	2,077	1,669	534	437	380	460	334
1986	W	1,095	428	356	304	2,500	3,835	2,500	2,500	2,168	632	466	597	806
1987	C	1,353	501	601	483	714	576	1,049	917	272	415	355	309	210
1988	C	958	287	320	289	365	576	867	810	403	346	373	303	182
1989	C	483	339	358	186	324	1,766	2,359	1,581	948	357	384	410	421
1990	C	434	349	339	179	335	810	1,351	849	514	338	382	274	232
1991	C	524	530	311	202	675	790	978	1,786	1,069	343	381	245	318
1992	C	477	404	288	209	751	761	1,371	927	171	236	185	9	239
1993	W	103	126	265	351	1,167	2,283	2,500	2,500	2,430	288	368	434	652
1994	C	360	338	323	158	376	595	1,069	1,552	413	329	368	252	241
1995	W	394	300	314	541	1,080	2,500	2,500	2,500	2,500	418	418	397	665
1996	W	1,115	361	363	343	2,500	2,098	2,500	2,500	1,765	528	542	542	680
1997	W	1,198	655	966	8,184	2,236	1,793	1,815	2,254	1,109	452	421	421	547
1998	W	1,208	257	247	324	3,458	2,254	2,470	2,500	2,500	1,101	2,230	2,231	780
1999	AN	1,718	823	1,083	1,527	2,128	1,210	1,744	2,500	2,168	495	518	544	579
2000	AN	1,178	350	341	453	1,971	1,561	2,238	2,500	1,291	435	385	401	573
2001	D	1,100	264	243	308	389	937	1,351	1,952	282	412	301	313	296
2002	D	919	311	377	314	594	995	2,148	2,108	978	406	365	343	410
2003	BN	867	282	311	243	594	937	1,563	2,500	1,825	435	337	307	446

**Table 21. LSJR Alternative 4 End-of-Month Storage at New Don Pedro on the Tuolumne River in TAF from 1922–2003**

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1922	W	1,314	1,300	1,325	1,364	1,481	1,561	1,637	1,822	2,030	1,990	1,909	1,773
1923	AN	1,690	1,690	1,690	1,690	1,690	1,690	1,718	1,726	1,713	1,686	1,578	1,532
1924	C	1,491	1,480	1,471	1,457	1,473	1,482	1,429	1,291	1,207	1,108	1,018	976
1925	BN	956	970	1,034	1,083	1,157	1,198	1,250	1,322	1,359	1,364	1,314	1,297
1926	D	1,278	1,275	1,284	1,289	1,337	1,398	1,392	1,338	1,274	1,188	1,114	1,084
1927	AN	1,058	1,099	1,147	1,193	1,273	1,323	1,340	1,424	1,585	1,597	1,531	1,505
1928	BN	1,474	1,506	1,544	1,558	1,601	1,634	1,631	1,718	1,662	1,551	1,456	1,411
1929	C	1,369	1,361	1,359	1,352	1,370	1,375	1,361	1,239	1,222	1,138	1,060	1,017
1930	C	986	977	1,018	1,046	1,083	1,104	1,058	1,008	1,012	967	922	905
1931	C	888	892	933	942	983	983	919	808	755	698	657	646
1932	AN	630	626	806	957	1,098	1,178	1,193	1,220	1,283	1,350	1,314	1,298
1933	D	1,267	1,251	1,257	1,255	1,302	1,317	1,337	1,299	1,238	1,188	1,130	1,105
1934	C	1,075	1,071	1,096	1,138	1,182	1,248	1,205	1,133	1,065	992	936	916
1935	AN	900	914	955	1,127	1,227	1,289	1,414	1,447	1,550	1,534	1,473	1,440
1936	AN	1,410	1,406	1,403	1,468	1,673	1,690	1,712	1,746	1,820	1,780	1,684	1,633
1937	W	1,585	1,572	1,572	1,573	1,690	1,690	1,718	1,739	1,816	1,734	1,632	1,579
1938	W	1,535	1,529	1,684	1,689	1,690	1,690	1,718	1,915	2,030	1,961	1,864	1,773
1939	D	1,690	1,690	1,690	1,690	1,690	1,690	1,631	1,554	1,446	1,318	1,212	1,170
1940	AN	1,156	1,156	1,224	1,381	1,539	1,680	1,718	1,740	1,788	1,693	1,605	1,558
1941	W	1,520	1,513	1,619	1,690	1,690	1,690	1,718	1,712	1,855	1,781	1,671	1,613
1942	W	1,562	1,557	1,642	1,646	1,690	1,690	1,714	1,828	2,030	1,964	1,858	1,773
1943	W	1,690	1,690	1,690	1,690	1,690	1,690	1,714	1,856	1,904	1,831	1,721	1,660
1944	BN	1,612	1,603	1,596	1,593	1,656	1,690	1,669	1,659	1,613	1,538	1,441	1,393
1945	AN	1,357	1,405	1,452	1,484	1,631	1,690	1,695	1,664	1,759	1,757	1,657	1,600
1946	AN	1,588	1,622	1,644	1,650	1,690	1,690	1,644	1,593	1,585	1,463	1,346	1,288
1947	D	1,243	1,262	1,296	1,313	1,342	1,354	1,314	1,300	1,237	1,149	1,071	1,039
1948	BN	1,032	1,034	1,074	1,089	1,100	1,175	1,218	1,208	1,248	1,227	1,173	1,154
1949	BN	1,131	1,127	1,128	1,127	1,156	1,309	1,298	1,279	1,240	1,176	1,118	1,098
1950	BN	1,073	1,071	1,075	1,115	1,235	1,342	1,346	1,306	1,320	1,270	1,216	1,191

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1951	AN	1,184	1,600	1,690	1,690	1,690	1,690	1,654	1,485	1,415	1,303	1,200	1,147
1952	W	1,112	1,119	1,241	1,479	1,623	1,690	1,718	2,002	2,030	1,971	1,890	1,773
1953	BN	1,690	1,681	1,690	1,690	1,690	1,690	1,636	1,601	1,630	1,626	1,526	1,477
1954	BN	1,440	1,441	1,446	1,457	1,477	1,525	1,499	1,571	1,537	1,439	1,350	1,310
1955	D	1,275	1,276	1,296	1,335	1,375	1,448	1,460	1,380	1,239	1,154	1,073	1,040
1956	W	1,014	1,013	1,578	1,615	1,690	1,690	1,682	1,699	1,962	1,897	1,796	1,742
1957	BN	1,690	1,682	1,679	1,679	1,690	1,690	1,637	1,602	1,658	1,553	1,450	1,398
1958	W	1,363	1,361	1,378	1,406	1,498	1,658	1,718	2,002	2,030	1,986	1,909	1,773
1959	D	1,690	1,676	1,660	1,690	1,690	1,690	1,653	1,564	1,432	1,306	1,198	1,170
1960	C	1,130	1,126	1,154	1,158	1,245	1,265	1,252	1,182	1,071	999	943	923
1961	C	904	905	992	1,004	1,017	1,009	951	838	747	695	656	643
1962	BN	627	622	652	667	778	856	838	883	1,048	1,093	1,072	1,070
1963	AN	1,065	1,066	1,086	1,136	1,204	1,217	1,260	1,411	1,586	1,638	1,584	1,559
1964	D	1,532	1,583	1,602	1,631	1,652	1,653	1,640	1,551	1,448	1,338	1,243	1,203
1965	W	1,173	1,196	1,624	1,690	1,690	1,690	1,718	1,658	1,662	1,705	1,632	1,572
1966	BN	1,522	1,596	1,596	1,600	1,671	1,673	1,602	1,561	1,448	1,332	1,232	1,191
1967	W	1,156	1,190	1,344	1,449	1,498	1,555	1,616	1,867	2,030	1,982	1,919	1,773
1968	D	1,690	1,678	1,678	1,686	1,690	1,690	1,629	1,581	1,489	1,362	1,261	1,210
1969	W	1,174	1,203	1,293	1,690	1,690	1,690	1,718	2,002	2,030	1,956	1,859	1,773
1970	AN	1,690	1,690	1,690	1,690	1,690	1,690	1,665	1,660	1,602	1,513	1,411	1,360
1971	BN	1,316	1,359	1,446	1,517	1,559	1,598	1,573	1,547	1,579	1,537	1,453	1,416
1972	D	1,382	1,394	1,442	1,499	1,536	1,519	1,476	1,401	1,345	1,247	1,167	1,131
1973	AN	1,104	1,117	1,201	1,336	1,456	1,543	1,517	1,719	1,739	1,652	1,574	1,535
1974	W	1,504	1,582	1,584	1,589	1,649	1,690	1,697	1,862	1,965	1,884	1,785	1,737
1975	W	1,690	1,683	1,686	1,690	1,690	1,690	1,718	1,734	1,965	1,891	1,789	1,734
1976	C	1,686	1,690	1,690	1,669	1,672	1,660	1,597	1,423	1,312	1,190	1,098	1,061
1977	C	1,030	1,024	1,046	1,038	1,048	1,037	976	899	799	739	694	679
1978	W	661	659	717	872	964	1,042	1,087	1,291	1,688	1,892	1,860	1,773
1979	AN	1,690	1,690	1,690	1,690	1,690	1,690	1,661	1,876	1,866	1,750	1,641	1,590
1980	W	1,556	1,558	1,578	1,690	1,690	1,690	1,673	1,802	2,009	1,995	1,899	1,773

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1981	D	1,690	1,675	1,672	1,684	1,690	1,690	1,660	1,546	1,454	1,333	1,240	1,199
1982	W	1,178	1,284	1,435	1,644	1,690	1,690	1,718	2,002	2,030	1,989	1,912	1,773
1983	W	1,690	1,690	1,690	1,690	1,690	1,690	1,718	2,002	2,030	2,030	1,944	1,773
1984	AN	1,690	1,690	1,690	1,690	1,690	1,690	1,642	1,630	1,601	1,513	1,401	1,342
1985	D	1,307	1,342	1,387	1,382	1,415	1,452	1,378	1,371	1,308	1,219	1,151	1,128
1986	W	1,114	1,136	1,213	1,286	1,657	1,690	1,703	1,935	2,030	2,027	1,954	1,773
1987	C	1,690	1,677	1,665	1,643	1,651	1,654	1,562	1,422	1,319	1,198	1,100	1,054
1988	C	1,025	1,025	1,065	1,123	1,168	1,149	1,066	949	886	820	767	746
1989	C	726	734	768	801	824	818	794	839	855	812	779	782
1990	C	807	810	838	855	888	881	805	763	735	687	648	638
1991	C	623	622	649	654	653	663	662	618	643	640	632	635
1992	C	635	639	670	689	736	751	703	736	722	725	696	679
1993	W	665	662	710	930	1,020	1,103	1,109	1,372	1,570	1,572	1,536	1,521
1994	C	1,495	1,484	1,478	1,481	1,491	1,474	1,390	1,273	1,196	1,103	1,029	996
1995	W	960	980	1,026	1,290	1,320	1,676	1,718	2,002	2,030	2,030	1,985	1,773
1996	W	1,690	1,674	1,690	1,690	1,690	1,690	1,688	1,921	1,966	1,893	1,783	1,733
1997	W	1,685	1,690	1,690	1,690	1,690	1,690	1,613	1,772	1,749	1,654	1,550	1,522
1998	W	1,473	1,466	1,468	1,634	1,690	1,690	1,717	1,806	2,030	2,005	1,921	1,773
1999	AN	1,690	1,690	1,690	1,690	1,690	1,690	1,708	1,702	1,786	1,701	1,598	1,549
2000	AN	1,500	1,492	1,481	1,562	1,684	1,690	1,628	1,772	1,767	1,658	1,562	1,519
2001	D	1,481	1,472	1,465	1,464	1,478	1,501	1,446	1,458	1,370	1,272	1,192	1,159
2002	D	1,132	1,144	1,219	1,282	1,307	1,298	1,223	1,272	1,253	1,176	1,112	1,085
2003	BN	1,066	1,103	1,163	1,237	1,263	1,258	1,260	1,280	1,325	1,265	1,212	1,193

**Table 22. LSJR Alternative 4 Monthly Average Flow at Modesto on the Tuolumne River in cfs and February–June Flow Volume in TAF**

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Feb-Jun [TAF]
1922	W	1,872	711	770	603	2,042	1,766	2,622	3,500	7,268	1,913	566	2,207	1,026
1923	AN	1,472	701	1,973	2,100	1,994	1,397	2,718	3,500	3,217	575	566	587	765
1924	C	732	605	580	579	428	371	1,402	2,039	200	331	342	353	268
1925	BN	428	442	440	427	2,452	1,620	3,500	3,500	3,500	380	389	408	868
1926	D	547	500	476	464	1,091	1,249	3,500	2,966	897	379	389	405	581
1927	AN	479	449	452	456	2,409	1,561	3,500	3,500	3,500	556	568	582	862
1928	BN	733	615	613	601	855	3,347	2,662	3,500	1,543	378	388	410	720
1929	C	547	495	477	468	432	966	1,492	3,500	2,269	333	341	363	522
1930	C	459	466	438	436	756	1,434	2,480	2,683	2,884	344	351	368	614
1931	C	456	453	449	437	486	644	1,553	2,039	494	334	344	354	314
1932	AN	424	437	430	427	2,503	1,678	2,470	3,500	3,500	577	568	578	818
1933	D	736	630	591	582	335	800	1,724	2,449	3,500	384	393	414	529
1934	C	482	471	451	434	972	1,464	1,875	1,454	958	331	341	353	402
1935	AN	435	445	437	436	1,156	1,337	3,500	3,500	3,500	562	565	587	778
1936	AN	733	609	597	593	3,500	3,478	3,500	3,500	3,500	611	565	582	1,047
1937	W	732	621	600	590	3,625	4,278	3,033	3,500	3,500	555	566	586	1,068
1938	W	732	618	1,922	1,613	7,123	7,539	4,619	3,500	8,120	3,684	572	1,260	1,832
1939	D	1,588	725	854	703	1,245	1,673	2,843	2,108	746	384	397	412	515
1940	AN	482	470	440	434	2,608	3,357	3,703	3,500	3,500	625	514	528	1,000
1941	W	640	526	755	2,495	5,049	4,646	3,185	3,500	3,500	2,545	618	547	1,179
1942	W	689	574	648	3,278	2,686	2,495	3,398	3,500	4,370	3,292	735	1,140	980
1943	W	1,333	1,270	1,409	3,732	3,293	5,952	3,500	3,500	3,500	1,073	501	436	1,181
1944	BN	753	584	626	650	834	1,594	1,654	3,500	2,692	414	405	359	620
1945	AN	526	453	389	529	3,295	2,827	2,864	3,500	3,500	688	634	572	951
1946	AN	684	466	3,746	2,702	2,354	3,054	3,500	3,500	2,672	637	600	580	901
1947	D	660	576	675	615	864	1,327	1,936	3,435	1,119	322	352	345	523
1948	BN	480	454	398	393	271	712	2,228	3,500	3,500	489	407	344	615
1949	BN	519	468	412	519	421	1,200	3,206	3,500	2,420	354	359	343	647

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Feb-Jun [TAF]
1950	BN	525	475	463	686	1,340	1,249	3,317	3,500	3,217	395	379	370	755
1951	AN	513	206	6,646	3,930	3,757	2,712	2,561	3,500	2,591	422	399	370	897
1952	W	461	400	475	846	1,544	2,596	3,874	4,665	7,191	3,733	617	1,882	1,194
1953	BN	1,322	479	674	2,059	1,313	1,570	2,722	2,527	3,500	519	433	400	695
1954	BN	460	400	391	397	1,102	2,078	3,500	3,500	1,865	373	379	369	723
1955	D	468	385	420	702	659	810	1,452	3,500	2,944	338	352	341	563
1956	W	395	372	441	6,886	2,920	3,431	2,843	3,500	3,500	2,933	681	574	972
1957	BN	927	478	491	518	1,490	1,995	1,744	3,500	3,500	399	408	405	733
1958	W	489	380	432	561	1,912	2,508	4,548	4,092	7,669	2,724	672	2,302	1,239
1959	D	1,383	519	581	658	2,872	2,003	2,259	2,264	1,402	349	333	366	640
1960	C	461	364	307	362	1,241	1,454	2,400	2,966	1,644	275	295	321	584
1961	C	310	330	282	337	497	693	1,664	2,147	1,230	236	256	235	374
1962	BN	298	314	323	314	2,517	1,356	3,500	3,500	3,500	358	396	408	855
1963	AN	464	273	315	425	3,338	1,093	2,501	3,500	3,500	527	500	515	825
1964	D	548	381	400	518	542	732	1,704	3,152	2,269	256	268	280	506
1965	W	343	266	234	4,607	3,581	3,136	3,359	3,500	3,500	543	565	717	1,015
1966	BN	585	491	2,109	1,104	810	1,425	3,015	3,464	867	246	242	242	577
1967	W	389	267	318	582	1,242	2,986	2,914	3,500	7,143	6,505	589	2,328	1,066
1968	D	1,303	449	485	515	1,656	1,562	1,886	2,810	1,422	350	338	330	561
1969	W	398	367	288	2,184	5,493	3,748	4,532	6,859	9,450	3,812	459	1,033	1,789
1970	AN	1,883	844	1,542	6,054	2,622	2,879	1,623	3,500	3,388	432	360	426	836
1971	BN	673	503	532	524	1,016	1,425	1,956	3,406	3,500	333	350	358	678
1972	D	515	322	524	367	814	1,776	1,573	3,357	2,218	276	286	284	588
1973	AN	315	451	522	524	2,009	1,688	2,612	3,500	3,500	484	509	512	794
1974	W	560	745	2,027	2,864	745	2,934	2,763	3,500	3,500	1,039	475	657	810
1975	W	1,190	1,088	789	757	3,142	3,403	2,563	3,500	3,500	1,262	558	569	960
1976	C	1,352	918	897	543	396	693	1,008	2,039	403	245	278	280	275
1977	C	284	309	322	295	200	224	797	1,034	1,059	170	167	153	199
1978	W	217	243	251	432	2,117	3,230	3,500	3,500	3,500	415	446	2,341	948



YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Feb-Jun [TAF]
1979	AN	1,285	807	673	2,687	3,693	4,036	2,622	3,500	3,176	547	625	516	1,013
1980	W	609	813	877	5,544	6,796	3,551	3,156	3,500	3,500	3,500	567	2,035	1,221
1981	D	1,320	775	519	693	987	1,796	2,450	3,201	1,523	321	348	341	598
1982	W	439	421	600	685	5,904	5,364	8,408	5,071	7,175	3,679	592	2,913	1,897
1983	W	3,570	3,648	5,342	5,349	6,761	9,417	3,219	3,797	14,314	7,982	2,862	3,087	2,231
1984	AN	1,874	5,978	7,476	4,226	3,445	3,208	2,047	3,500	3,327	558	597	599	930
1985	D	743	974	430	489	745	1,229	3,045	3,327	1,361	340	367	359	584
1986	W	334	363	356	284	3,500	7,433	3,227	3,500	5,273	648	541	3,292	1,372
1987	C	1,979	1,300	566	596	400	966	1,956	1,981	655	256	265	253	359
1988	C	242	259	254	305	595	1,025	1,603	2,078	988	175	190	177	379
1989	C	194	220	245	244	659	2,781	3,116	3,132	2,087	187	203	212	710
1990	C	215	245	232	236	573	1,269	2,218	1,776	1,008	199	221	212	411
1991	C	214	239	223	208	200	1,639	1,815	3,279	2,975	183	201	188	599
1992	C	210	239	217	224	970	1,122	2,319	1,844	464	169	174	175	404
1993	W	213	208	217	781	1,739	3,113	3,378	3,500	3,500	2,059	326	404	912
1994	C	581	448	413	399	573	1,054	1,966	2,683	1,200	188	201	186	450
1995	W	230	218	223	518	1,729	3,500	4,248	4,051	11,607	8,579	1,781	3,637	1,504
1996	W	1,392	451	621	1,798	5,985	4,650	3,257	3,500	3,500	794	483	533	1,248
1997	W	592	1,130	6,295	17,792	3,756	3,492	2,793	3,500	3,388	499	486	486	1,006
1998	W	693	337	431	899	6,310	4,869	3,500	3,500	8,257	6,736	517	2,201	1,565
1999	AN	1,573	726	954	2,078	5,037	3,671	2,642	3,500	3,500	497	501	506	1,086
2000	AN	591	442	344	433	2,889	3,480	3,368	3,500	3,247	488	691	721	989
2001	D	692	465	418	518	648	1,747	2,289	3,500	555	293	314	300	528
2002	D	322	243	383	427	853	1,376	3,035	3,500	2,249	279	326	296	662
2003	BN	315	247	294	264	702	1,210	2,198	3,500	3,500	228	283	269	668

**Table 23. LSJR Alternative 4 End-of-Month Storage at New Exchequer on the Merced River in TAF from 1922–2003**

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1922	W	469	456	483	506	599	652	647	780	948	876	767	713
1923	AN	675	675	675	675	675	683	696	780	771	728	607	539
1924	C	507	500	493	488	501	503	492	461	385	307	244	216
1925	BN	199	204	210	215	276	312	380	499	520	521	499	486
1926	D	473	466	462	457	483	498	510	437	422	413	387	363
1927	AN	343	331	336	326	292	299	267	378	400	436	468	511
1928	BN	515	511	524	539	551	493	454	461	455	455	459	477
1929	C	469	456	443	432	444	446	437	364	320	339	359	347
1930	C	328	315	302	291	285	246	230	197	176	217	253	269
1931	C	253	245	235	230	246	259	264	267	235	188	150	136
1932	AN	120	109	171	204	295	328	361	468	553	568	538	523
1933	D	507	494	485	485	495	509	510	500	506	449	380	351
1934	C	331	319	321	338	368	394	403	385	349	289	240	218
1935	AN	201	206	213	278	308	348	481	624	716	704	666	646
1936	AN	628	621	613	637	675	708	748	837	811	758	637	578
1937	W	531	521	524	532	667	717	748	919	928	852	743	689
1938	W	662	653	675	675	675	735	796	970	1,024	932	809	748
1939	D	675	675	675	673	675	701	720	689	613	518	431	396
1940	AN	385	375	365	476	546	599	661	789	785	728	660	608
1941	W	579	568	593	593	675	735	773	970	1,024	943	829	775
1942	W	675	674	675	675	675	710	739	815	947	854	731	673
1943	W	643	655	656	656	675	735	796	886	877	805	682	624
1944	BN	593	581	573	577	608	639	635	689	677	626	556	520
1945	AN	496	514	529	538	628	669	695	784	791	717	606	554
1946	AN	520	533	533	533	560	594	622	708	689	634	570	541
1947	D	517	529	530	530	555	574	581	582	528	452	381	350
1948	BN	334	328	319	316	325	337	360	428	482	460	418	393
1949	BN	376	363	356	350	367	398	438	502	498	451	403	382
1950	BN	363	352	342	365	397	417	462	510	521	477	425	401

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1951	AN	385	626	675	675	675	709	726	726	691	616	533	493
1952	W	469	461	504	571	607	681	734	970	1,024	945	833	777
1953	BN	675	665	675	675	675	685	694	674	651	593	509	470
1954	BN	445	433	423	426	453	488	538	592	569	513	447	422
1955	D	400	387	388	401	418	430	434	474	473	425	369	347
1956	W	326	312	675	675	675	716	739	852	948	855	732	672
1957	BN	638	633	626	624	649	669	667	677	672	599	520	482
1958	W	457	449	455	472	533	616	758	970	1,024	957	858	807
1959	D	675	663	650	656	675	690	700	676	608	513	427	409
1960	C	389	375	360	353	386	408	437	459	435	383	334	313
1961	C	294	285	283	275	289	301	317	327	307	262	221	204
1962	BN	185	172	166	159	248	309	388	453	518	533	507	493
1963	AN	481	468	457	483	557	586	617	714	755	741	688	660
1964	D	637	657	661	666	675	678	668	657	604	517	432	397
1965	W	369	371	578	645	675	689	715	776	817	802	676	618
1966	BN	589	601	601	601	622	642	670	680	622	539	466	437
1967	W	416	413	509	553	582	645	712	891	1,024	949	841	788
1968	D	675	666	662	664	675	688	692	678	617	518	436	404
1969	W	380	387	409	675	675	720	823	970	1,024	930	807	746
1970	AN	675	675	675	675	675	723	726	758	728	653	575	540
1971	BN	519	522	557	590	611	627	633	653	656	608	543	513
1972	D	494	486	509	518	542	567	576	595	573	502	437	418
1973	AN	409	404	421	474	561	618	647	860	883	814	712	663
1974	W	620	632	633	633	659	708	739	880	887	794	674	617
1975	W	578	569	569	580	638	687	702	827	967	883	766	708
1976	C	670	675	674	663	675	676	660	626	550	452	376	349
1977	C	330	312	297	284	284	277	269	251	225	179	141	123
1978	W	103	87	104	200	289	384	487	709	959	928	857	806
1979	AN	675	675	669	675	675	733	751	893	864	789	677	618
1980	W	582	573	572	595	675	732	765	866	962	877	761	705

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1981	D	675	656	645	647	665	685	691	692	635	548	472	440
1982	W	420	448	494	608	675	735	845	970	1,024	941	826	759
1983	W	675	675	675	675	675	735	754	970	1,024	933	810	744
1984	AN	675	675	675	675	675	712	727	806	770	709	637	603
1985	D	583	590	595	596	619	633	655	661	607	525	451	424
1986	W	407	404	419	445	675	735	791	937	1,005	940	841	789
1987	C	675	658	644	634	648	658	659	636	570	481	407	379
1988	C	353	349	344	354	364	379	389	389	359	314	269	253
1989	C	232	221	218	211	223	263	304	324	309	282	261	257
1990	C	253	247	239	238	250	265	284	282	252	216	181	166
1991	C	147	133	118	104	98	142	163	204	232	233	222	218
1992	C	203	197	190	187	220	238	273	282	256	248	227	225
1993	W	207	198	200	371	421	480	520	740	849	792	696	646
1994	C	616	602	593	586	602	603	592	567	518	428	358	322
1995	W	308	311	319	504	539	735	780	970	1,024	954	850	797
1996	W	675	662	672	675	675	727	755	875	849	778	655	594
1997	W	549	561	562	562	619	689	724	818	795	736	672	641
1998	W	614	606	605	627	675	735	782	843	1,024	941	825	763
1999	AN	675	675	675	675	675	692	693	782	755	674	592	555
2000	AN	526	517	504	544	621	679	702	804	777	704	633	599
2001	D	552	542	536	532	548	581	590	615	555	476	405	386
2002	D	359	353	384	410	424	438	466	496	471	406	345	319
2003	BN	294	307	324	348	360	378	393	499	508	464	419	394

**Table 24. LSJR Alternative 4 Monthly Average Flow at Stevinson on the Merced River in cfs and February–June Flow Volume in TAF**

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Feb-Jun [TAF]
1922	W	636	390	504	482	1,761	1,142	1,250	2,000	2,000	1,387	867	453	484
1923	AN	547	304	1,173	1,274	1,006	546	1,593	2,000	1,563	159	762	598	400
1924	C	593	385	382	396	156	185	676	888	150	54	36	49	124
1925	BN	282	419	425	428	1,145	751	1,815	2,000	1,482	116	77	54	429
1926	D	266	354	375	375	681	537	2,000	1,688	484	51	37	51	322
1927	AN	274	322	313	381	1,480	849	1,805	2,000	2,000	136	84	89	484
1928	BN	426	352	389	361	501	1,552	1,432	2,000	686	179	88	80	373
1929	C	296	387	387	408	238	459	786	1,883	978	49	54	92	262
1930	C	276	367	359	361	281	712	1,190	1,337	1,129	35	35	93	280
1931	C	276	385	372	382	205	254	746	898	202	87	41	75	139
1932	AN	266	363	475	469	1,585	771	1,321	2,000	2,000	109	57	58	459
1933	D	310	386	383	426	162	420	887	1,298	1,805	60	41	30	275
1934	C	298	383	405	466	486	634	928	546	333	85	36	29	175
1935	AN	282	389	409	580	540	839	2,000	2,000	2,000	182	100	55	443
1936	AN	368	410	385	428	3,954	976	2,000	2,000	1,644	108	807	441	627
1937	W	707	424	417	416	2,000	1,278	1,644	2,000	1,936	597	812	446	526
1938	W	442	401	2,050	1,344	4,918	4,548	2,000	2,716	4,876	2,238	1,159	596	1,129
1939	D	1,442	478	417	443	669	693	1,523	986	323	67	73	68	250
1940	AN	331	424	418	573	1,408	1,444	1,835	2,000	1,412	145	188	416	486
1941	W	459	427	1,286	1,340	1,644	1,669	1,593	2,170	2,856	1,749	1,069	508	592
1942	W	1,737	447	1,395	1,530	1,709	878	1,865	2,000	2,000	1,651	1,021	509	502
1943	W	494	549	783	2,172	1,647	3,140	2,000	2,000	1,533	534	941	490	618
1944	BN	475	459	436	414	490	790	807	2,000	1,341	172	136	88	328
1945	AN	357	489	446	441	1,988	1,103	1,573	2,000	2,000	878	937	421	514
1946	AN	840	640	1,862	1,067	357	800	1,946	2,000	1,149	170	129	81	376
1947	D	577	532	963	621	432	605	1,049	1,678	514	65	80	76	257
1948	BN	319	397	398	388	150	332	1,079	2,000	2,000	182	100	97	335
1949	BN	348	404	386	402	248	761	1,432	2,000	1,129	121	121	70	336

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Feb-Jun [TAF]
1950	BN	326	394	394	428	659	517	1,734	2,000	1,260	162	130	77	370
1951	AN	329	402	3,675	1,738	1,631	839	1,311	1,717	1,049	186	116	63	388
1952	W	347	417	460	1,986	678	1,532	2,000	2,248	3,636	1,942	1,231	621	607
1953	BN	1,664	428	384	1,241	723	400	1,210	1,190	1,593	140	126	55	305
1954	BN	360	405	403	406	519	966	1,714	2,000	746	167	131	81	358
1955	D	314	392	409	537	248	351	655	1,893	1,381	120	113	55	273
1956	W	311	386	239	4,367	1,973	859	1,553	2,000	2,000	1,954	1,152	610	501
1957	BN	580	422	409	411	443	615	887	1,952	1,775	195	154	81	341
1958	W	424	381	405	481	897	1,591	2,000	2,424	3,464	1,720	1,123	675	622
1959	D	2,236	395	382	395	815	537	1,190	1,093	514	107	116	94	247
1960	C	307	374	383	397	574	595	1,260	1,434	645	101	127	49	271
1961	C	286	365	387	372	184	293	847	927	444	70	55	40	162
1962	BN	264	341	359	360	1,718	722	1,996	2,000	2,000	253	182	78	501
1963	AN	346	362	376	376	1,869	595	1,321	2,000	2,000	277	194	158	461
1964	D	411	397	398	404	276	273	766	1,366	817	163	114	77	211
1965	W	346	356	528	1,780	697	673	1,664	2,000	2,000	309	1,448	634	421
1966	BN	474	866	812	1,055	346	634	1,603	1,776	474	206	165	79	291
1967	W	293	366	400	408	551	1,639	2,000	2,000	3,353	4,063	1,494	797	573
1968	D	2,153	411	330	382	752	468	948	1,181	504	196	177	130	231
1969	W	275	431	434	2,006	4,186	1,591	2,000	5,366	4,475	2,433	1,233	711	1,045
1970	AN	1,307	380	590	2,941	1,254	1,064	897	2,000	1,281	256	222	150	388
1971	BN	383	375	359	425	421	576	988	1,786	1,815	256	188	102	335
1972	D	359	386	423	270	355	800	807	1,630	968	240	222	18	275
1973	AN	309	412	432	474	1,350	1,122	1,321	2,000	2,000	600	1,038	574	465
1974	W	815	776	1,095	1,690	400	1,288	1,623	2,000	2,000	841	1,054	586	440
1975	W	667	350	409	307	1,167	1,269	988	2,000	2,000	1,163	1,062	533	444
1976	C	1,107	370	362	392	215	322	494	907	192	175	205	136	129
1977	C	354	311	322	373	150	150	313	381	464	106	81	44	87

YEAR	WYT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Feb-Jun [TAF]
1978	W	268	282	350	516	1,599	1,834	2,000	2,000	2,000	2,613	1,294	1,369	563
1979	AN	2,213	602	441	1,747	1,922	1,337	1,331	2,000	1,563	262	731	443	484
1980	W	698	374	392	3,976	3,134	1,522	1,734	2,000	2,000	2,284	1,248	583	619
1981	D	663	398	444	479	292	507	1,230	1,552	696	168	168	97	257
1982	W	401	405	414	484	2,475	2,127	4,613	3,714	2,373	2,249	1,390	1,170	912
1983	W	2,080	1,962	2,303	3,660	4,406	5,850	1,986	2,013	7,705	5,943	2,444	1,100	1,305
1984	AN	1,540	2,232	3,554	1,905	1,586	947	1,301	2,000	1,149	291	277	217	418
1985	D	580	338	334	488	357	576	1,482	1,669	575	236	206	100	280
1986	W	405	395	408	380	2,562	4,011	1,926	2,000	2,000	946	1,113	737	745
1987	C	2,015	416	418	381	194	351	958	927	252	130	135	87	161
1988	C	356	340	375	377	250	468	938	1,044	555	97	92	52	196
1989	C	256	274	322	304	248	937	1,613	1,288	736	68	62	67	290
1990	C	305	303	327	310	227	546	1,149	849	484	72	68	26	196
1991	C	248	258	274	292	150	937	817	1,795	1,462	91	54	10	312
1992	C	270	289	297	291	563	498	1,321	1,025	313	76	55	11	223
1993	W	206	313	350	684	1,080	1,532	1,825	2,000	2,000	1,492	1,085	640	505
1994	C	739	369	334	315	302	390	877	1,142	434	48	54	2	189
1995	W	239	327	317	611	756	2,504	2,000	2,277	5,695	4,891	1,700	509	794
1996	W	2,047	379	365	1,077	2,999	1,571	1,986	2,000	1,583	374	903	480	605
1997	W	613	845	3,494	9,912	1,102	1,132	1,704	2,000	1,149	149	114	84	424
1998	W	369	336	356	1,396	4,345	1,911	2,000	2,000	3,184	4,614	1,499	759	790
1999	AN	1,676	382	502	828	2,024	654	1,291	2,000	1,553	174	196	100	445
2000	AN	285	345	318	325	1,784	1,132	1,674	2,000	1,311	175	112	59	473
2001	D	668	496	392	389	335	839	1,089	2,000	333	74	84	25	278
2002	D	239	403	390	449	378	576	1,523	1,737	857	90	61	2	305
2003	BN	227	316	353	327	367	605	1,129	2,000	1,714	80	66	41	350