

CVP Share of Exports through the Twin Tunnels for CWF H3+

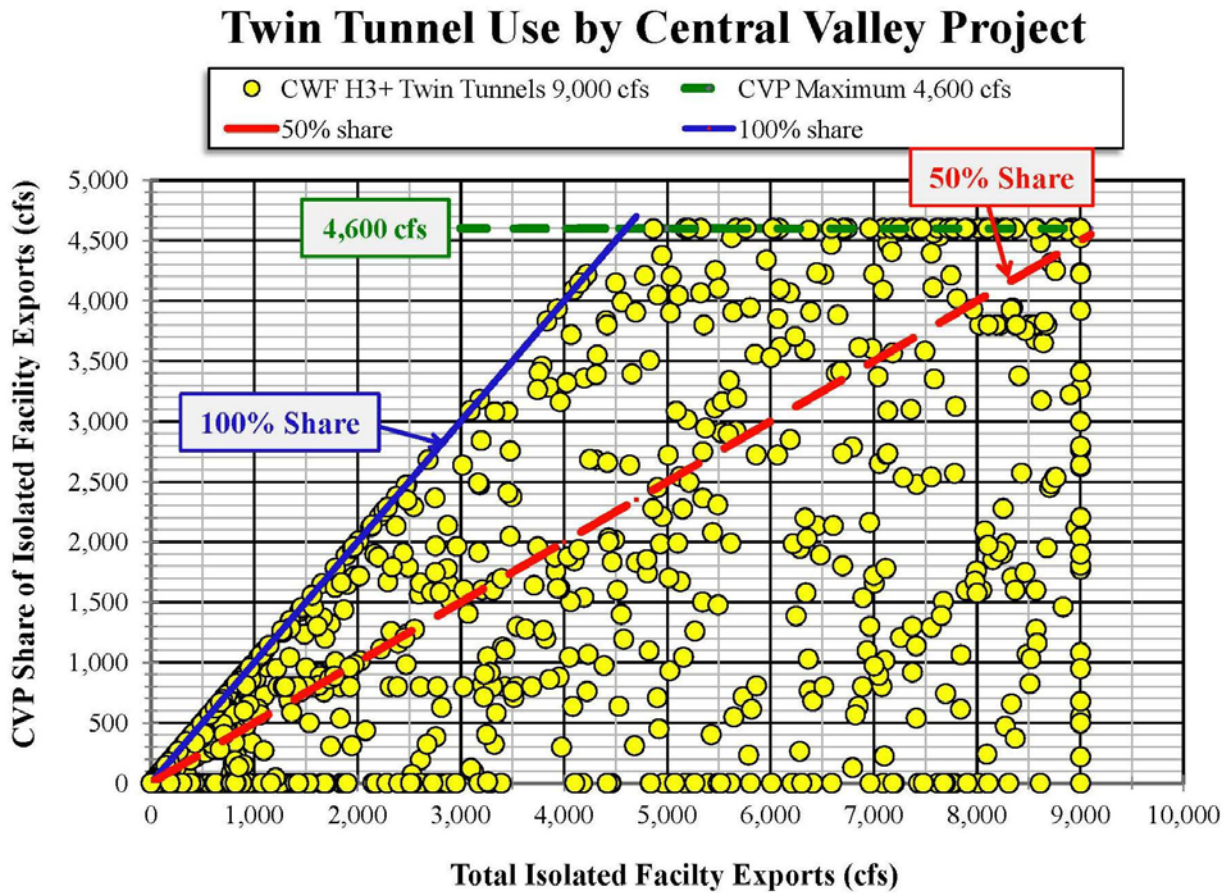


Figure 1: Monthly-averaged Central Valley Project (CVP) exports through the twin tunnels (isolated facility) as a function of the total SWP and CVP twin tunnel exports for the proposed WaterFix project CWF H3+. The data are for the full CALSIM II modeling period, October 1, 1921 through September 30, 2003. The maximum CVP share is limited by the maximum capacity of the Jones Pumping Plant and Delta Mendota Canal (4,600 cfs).

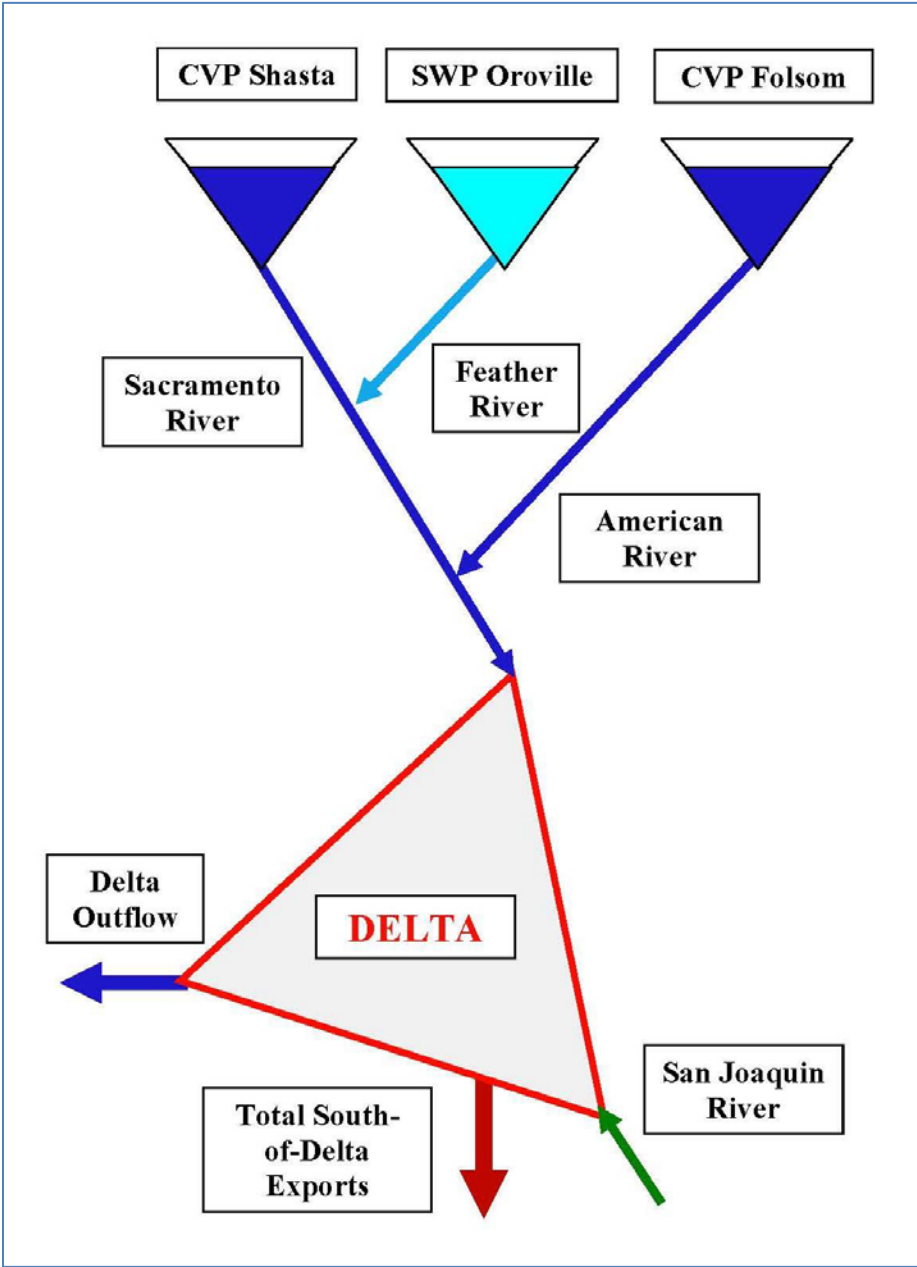


Figure 2: Schematic showing the CVP’s Shasta and Folsom Reservoirs and the SWP’s Oroville Reservoir and their contributions to Sacramento, Feather and American River flows and Delta inflows, outflows and exports.

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Table 1: 82-year average of exports through the twin tunnels (isolated facility) by month for the proposed WaterFix project CWF H3+. The averaging period is October 1, 1921 through September 30, 2003. Overall, the CVP receives 40% of the exports through the north Delta intakes in CWF H3+.

Month	CVP IF Exports (cfs)	SWP IF Exports (cfs)	Total IF Exports (cfs)	Total IF and South Delta Exports (cfs)	CVP IF % of Total IF	CVP IF % of Total Exports
Oct	1,114	1,493	2,607	5,918	43	19
Nov	1,095	1,724	2,818	6,139	39	18
Dec	472	1,575	2,046	9,410	23	5
Jan	1,438	2,478	3,916	7,714	37	19
Feb	2,095	3,242	5,337	8,581	39	24
Mar	1,957	2,893	4,849	6,344	40	31
Apr	821	1,091	1,912	2,976	43	28
May	803	813	1,617	2,589	50	31
Jun	1,911	2,146	4,057	6,466	47	30
Jul	1,948	3,808	5,756	9,831	34	20
Aug	1,840	2,333	4,173	8,700	44	21
Sep	1,131	1,814	2,945	6,405	38	18
Average	1,385	2,117	3,503	6,756	40	22
Max	2,095	3,808	5,756	9,831	50	31
Min	472	813	1,617	2,589	23	5

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Table 2: CVP Exports through twin tunnels for CWF H3+

Water Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1922	800	91	0	924	3,125	3,086	977	2,624	1,084	1,900	4,600	0
1923	2,906	1,760	637	3,906	0	787	669	800	606	3,800	4,600	2,476
1924	0	0	521	738	891	0	420	405	482	0	0	0
1925	0	0	672	825	4,220	1,669	857	800	1,342	4,066	0	383
1926	766	0	0	1,087	3,618	907	286	323	1,422	800	0	1,321
1927	0	983	501	2,134	1,291	3,398	800	800	1,843	4,597	4,476	1,781
1928	0	1,947	0	1,916	2,945	4,600	1,012	800	1,802	826	0	298
1929	2,680	1,541	0	809	1,450	710	266	562	648	0	0	0
1930	0	121	936	1,887	0	800	0	0	0	0	0	0
1931	0	0	0	804	826	0	219	259	471	0	0	0
1932	0	0	845	0	0	752	0	326	846	334	0	0
1933	0	183	578	0	728	0	0	0	675	0	0	0
1934	0	0	697	0	614	600	0	0	682	0	0	0
1935	0	1,300	1	1,128	788	0	1,706	2,137	1,657	265	0	0
1936	0	0	0	767	554	1,671	800	800	709	0	3,990	2,211
1937	2,377	0	1,062	0	0	0	1,160	309	3,338	0	2,755	2,466
1938	1,949	0	710	715	802	1,987	2,730	3,935	497	4,600	4,600	1,600
1939	1,504	800	87	647	870	641	0	90	644	3,359	867	0
1940	0	0	0	2,047	4,600	1,775	3,274	800	4,192	1,746	548	0
1941	637	1,831	3,112	743	0	4,600	4,600	1,671	2,125	3,800	0	3,415
1942	3,163	1,963	0	2,119	2,203	3,098	1,111	1,233	2,478	0	4,339	192
1943	0	1,726	0	4,600	1,806	4,600	1,276	823	962	4,600	0	1,566
1944	2,363	1,662	786	663	1,517	2,133	0	247	805	814	0	1,715
1945	0	0	850	984	2,198	0	800	354	879	1,069	449	2,138
1946	788	0	0	0	1,577	1,780	134	800	1,098	1,029	580	0
1947	0	1,703	0	664	1,097	800	0	71	0	1,600	0	1,341
1948	0	0	0	712	163	1,654	62	800	4,600	3,678	4,537	4,219
1949	4,597	1,458	85	671	768	3,352	0	126	2,012	1,900	0	322
1950	47	1,076	0	896	1,984	831	0	0	613	471	3,284	123

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Table 2: CVP Exports through twin tunnels for CWF H3+ (continued)

Water Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1951	0	2,209	4,600	1,016	636	1,760	904	800	1,300	3,378	4,047	2,278
1952	761	1,722	402	0	4,600	4,600	4,600	4,314	4,600	4,600	4,600	4,600
1953	800	800	0	4,231	3,651	3,604	0	800	2,788	4,600	4,376	1,049
1954	800	800	43	3,550	3,908	4,252	800	0	4,468	2,572	0	403
1955	2,684	1,986	0	1,791	950	620	304	395	686	2,365	0	3,182
1956	0	0	0	949	2,768	1,855	478	877	3,906	3,800	4,600	4,092
1957	2,018	1,908	0	587	732	800	28	174	3,090	1,952	1,208	0
1958	4,600	3,567	537	1,276	1,507	1,675	2,651	1,603	4,564	3,800	4,600	4,600
1959	1,399	1,257	228	1,006	1,782	2,010	5	89	1,373	3,800	538	0
1960	0	0	512	727	2,638	955	0	5	3,933	2,032	469	71
1961	0	918	940	849	4,600	2,475	33	276	1,455	4,600	0	0
1962	0	64	553	654	4,233	800	0	0	2,375	1,161	0	323
1963	2,274	4,600	1,069	1,349	2,534	2,534	3,173	800	1,386	1,600	0	920
1964	1,278	2,135	337	1,202	897	657	312	370	360	1,600	0	1,235
1965	0	1,834	233	4,600	2,788	2,162	984	272	4,522	0	3,835	285
1966	2,721	2,410	0	1,659	3,944	903	0	151	931	1,065	3,372	2,292
1967	357	1,045	1,742	1,581	4,600	3,222	224	658	499	4,600	4,600	4,600
1968	860	800	149	1,558	4,251	240	0	64	2,570	0	3,459	0
1969	3,079	0	0	4,600	4,600	1,990	2,734	3,942	0	4,600	0	0
1970	2,001	800	0	0	2,038	4,600	235	335	4,018	0	3,408	888
1971	2,723	1,576	3,882	4,220	3,594	800	270	800	4,105	3,800	4,586	157
1972	2,542	1,438	0	561	1,961	800	214	255	867	4,484	3,388	0
1973	756	2,922	437	2,452	2,782	2,484	567	800	2,094	0	2,277	0
1974	0	0	0	0	4,600	3,922	2,998	800	4,600	0	4,209	0
1975	1,106	1,876	0	575	3,320	4,233	689	800	3,705	1,031	4,600	3,833
1976	3,615	1,043	0	686	837	819	282	446	521	0	0	0
1977	0	0	0	0	556	507	0	0	501	0	0	0
1978	0	411	705	4,211	4,600	2,032	1,697	1,302	2,375	3,800	4,600	0

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Table 3: CVP Exports through twin tunnels for preliminary WaterFix modeling of a Stage 1, Single 6,000 cfs tunnel. Data were released to the public on February 7, 2018.

Data downloaded from <https://www.californiawaterfix.com/resources/updated-calsim-dsm2-and-biological-modeling-data/>

Water Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1922	728	1,000	1,000	978	1,000	1,000	1,000	1,000	363	800	1,000	0
1923	1,000	0	758	669	800	981	1,000	1,000	1,000	1,000	1,000	0
1924	600	643	564	420	405	482	0	0	0	0	0	521
1925	779	1,000	1,000	857	932	1,000	1,000	0	383	0	0	559
1926	937	1,000	998	286	161	0	1,000	0	0	498	0	0
1927	1,000	1,000	1,000	800	800	944	1,000	1,000	292	0	0	500
1928	1,000	1,000	1,000	1,000	54	983	1,000	1,000	135	1,000	1,000	0
1929	717	1,000	586	261	545	284	0	0	0	504	1,000	0
1930	1,000	1,000	1,000	0	0	1,000	0	0	1,000	0	102	645
1931	618	600	473	219	261	471	0	0	0	249	34	435
1932	138	0	0	341	0	649	336	0	1,000	0	0	845
1933	0	0	0	0	0	588	0	0	0	0	99	0
1934	0	0	0	31	0	591	0	0	0	0	0	628
1935	1,000	598	1,000	1,000	1,000	1,000	952	0	1,000	0	1,000	355
1936	750	535	1,000	800	800	901	1,000	1,000	1,000	1,000	695	68
1937	0	0	553	1,000	309	1,000	1,000	0	0	1,000	1,000	986
1938	716	802	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	0	194
1939	593	741	0	0	91	589	1,000	803	0	1,000	800	87
1940	1,000	1,000	1,000	1,000	800	717	1,000	1,000	373	47	34	0
1941	1,000	1,000	1,000	1,000	1,000	226	1,000	1,000	1,000	1,000	1,000	0
1942	1,000	1,000	1,000	1,000	1,000	569	1,000	1,000	1,000	1,000	1,000	0
1943	1,000	1,000	1,000	1,000	823	954	1,000	1,000	0	1,000	1,000	0
1944	583	1,000	1,000	0	248	600	1,000	0	0	1,000	1,000	0
1945	912	1,000	0	800	624	1,000	1,000	1,000	0	0	1,000	755
1946	1,000	1,000	1,000	134	800	974	1,000	1,000	0	788	1,000	616
1947	585	917	800	0	52	0	1,000	0	0	0	1,000	0
1948	574	729	1,000	62	69	1,000	1,000	1,000	1,000	485	294	0

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Table 3: CVP Exports through twin tunnels for preliminary WaterFix modeling of a Stage 1, Single 6,000 cfs tunnel (continued)

Water Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1949	631	621	1,000	136	126	1,000	1,000	0	1,000	1,000	1,000	362
1950	709	1,000	841	0	0	1,000	1,000	229	1,000	47	0	0
1951	1,000	599	1,000	904	800	955	1,000	1,000	234	1,000	0	1,000
1952	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	885	619
1953	1,000	1,000	1,000	25	800	1,000	1,000	1,000	1,000	1,000	1,000	0
1954	1,000	1,000	1,000	800	194	1,000	1,000	1,000	708	800	800	45
1955	1,000	1,000	536	304	426	593	1,000	0	1,000	1,000	1,000	0
1956	1,000	1,000	1,000	478	877	1,000	1,000	1,000	1,000	0	1,000	1,000
1957	530	602	800	66	174	1,000	1,000	1,000	0	1,000	1,000	0
1958	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	0	1,000	537
1959	1,000	1,000	1,000	5	68	843	1,000	1,000	0	1,000	1,000	244
1960	596	1,000	800	0	5	1,000	1,000	0	20	41	34	0
1961	702	1,000	1,000	0	244	1,000	1,000	0	0	103	832	706
1962	0	1,000	800	181	0	496	1,000	1,000	26	47	64	207
1963	1,000	1,000	1,000	1,000	800	898	1,000	1,000	1,000	1,000	1,000	1,000
1964	906	674	598	313	370	589	1,000	0	0	1,000	166	600
1965	1,000	1,000	1,000	984	272	914	1,000	1,000	0	47	1,000	612
1966	1,000	1,000	1,000	0	151	600	1,000	1,000	1,000	1,000	1,000	0
1967	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	343	992	338
1968	1,000	1,000	1,000	0	67	1,000	812	592	0	1,000	1,000	161
1969	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	0	1,000	0
1970	1,000	1,000	1,000	235	0	1,000	1,000	1,000	251	1,000	800	0
1971	1,000	1,000	800	0	58	1,000	1,000	1,000	0	1,000	638	271
1972	561	1,000	800	214	263	644	1,000	367	1,000	1,000	1,000	0
1973	1,000	1,000	1,000	566	800	1,000	1,000	1,000	0	1,000	1,000	437
1974	1,000	1,000	1,000	1,000	800	987	0	1,000	1,000	1,000	1,000	1,000
1975	498	1,000	1,000	689	800	1,000	1,000	1,000	1,000	869	800	0
1976	587	612	640	234	446	522	1,000	0	739	1,000	1,000	0
1977	0	553	51	0	0	501	0	0	0	378	34	28

