

Westlands Water District

Proposed Trinity River Settlement

Westlands Water District recently presented a proposed settlement to the Department of the Interior, representatives of the Hoopa Valley Tribe, and Trinity County officials. Westlands drafted the proposal after developments in California changed the long-term water supply outlook for south-of-Delta Central Valley Project contractors, including the farmers in Westlands. Those developments included the recently approved Quantification Settlement Agreement involving Colorado River water and a historic agreement to share assets and better coordinate the daily operations of California's State Water Project and the Central Valley Project.

Last year, a U.S. District Court overturned the Trinity River Record of Decision issued in 2000 because it failed to adequately address water supply impacts to the Central Valley Project and environmental impacts to endangered fish species in the San Francisco Bay / Delta estuary, and failed to consider a reasonable range of alternatives for accomplishing restoration. Since that ruling, Westlands has attempted to resolve the ongoing litigation through a long-term settlement proposal.

Westlands' proposal is designed to restore the Trinity River fishery in a manner that does not severely impact the water supplies of farms, cities and endangered fish species that rely upon the Central Valley Project. Although Westlands continues to have concerns about the approach adopted in the Record of Decision, in an effort to reach a compromise the proposal puts aside disputes over the science and closely mirrors restoration strategies contained in the 2000 Record of Decision. For example, under the Westlands proposal, peak spring and early summer flows are identical to those contained in the Record of Decision. Base flows in the summer and fall are only slightly less than those contained in the Record of Decision, and are in fact significantly greater than historic levels under both the Record of Decision and the settlement proposal. Over the long term, the Westlands proposal would deliver on average 92 percent of the water called for in the Record of Decision.

Key provisions of the Westlands proposal are as follows:

Year Type	Record of Decision (ac-ft)	Westlands Proposed Settlement (ac-ft)
Extremely Wet ¹	815,200	815,200
Wet ²	701,000	701,000
Normal	647,000	575,000
Dry ³	453,000	400,000
Critically Dry	368,000	340,000

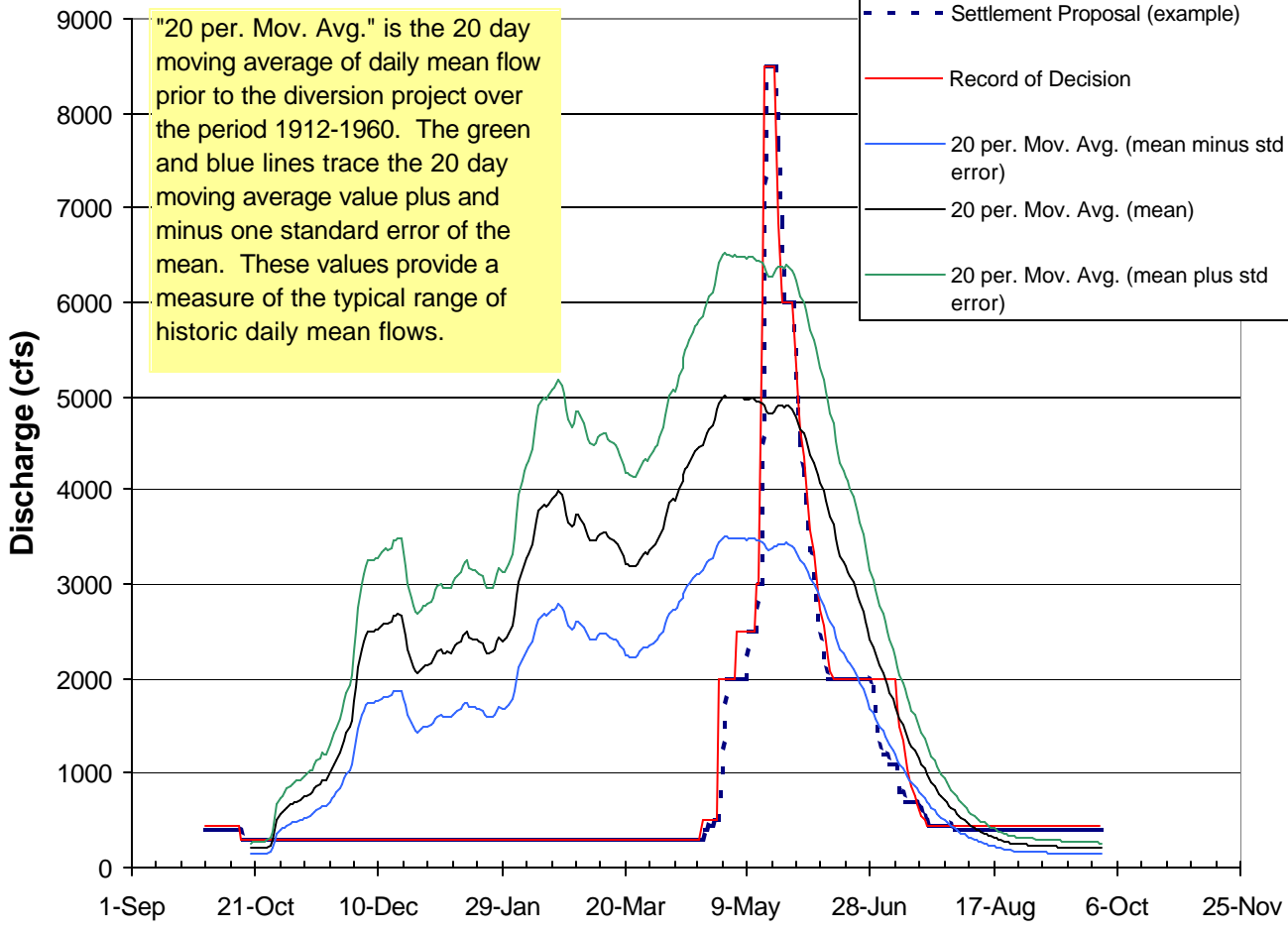
1. In two or three consecutive extremely wet years, flows revert to wet year flows in ROD (701,000 ac-ft) in second and third years.
2. In two consecutive wet years, flows revert to normal year flows in ROD (647,000 ac-ft) in second year.
3. One half of the dry years (the driest half) will be reclassified critically dry year types.

Charts

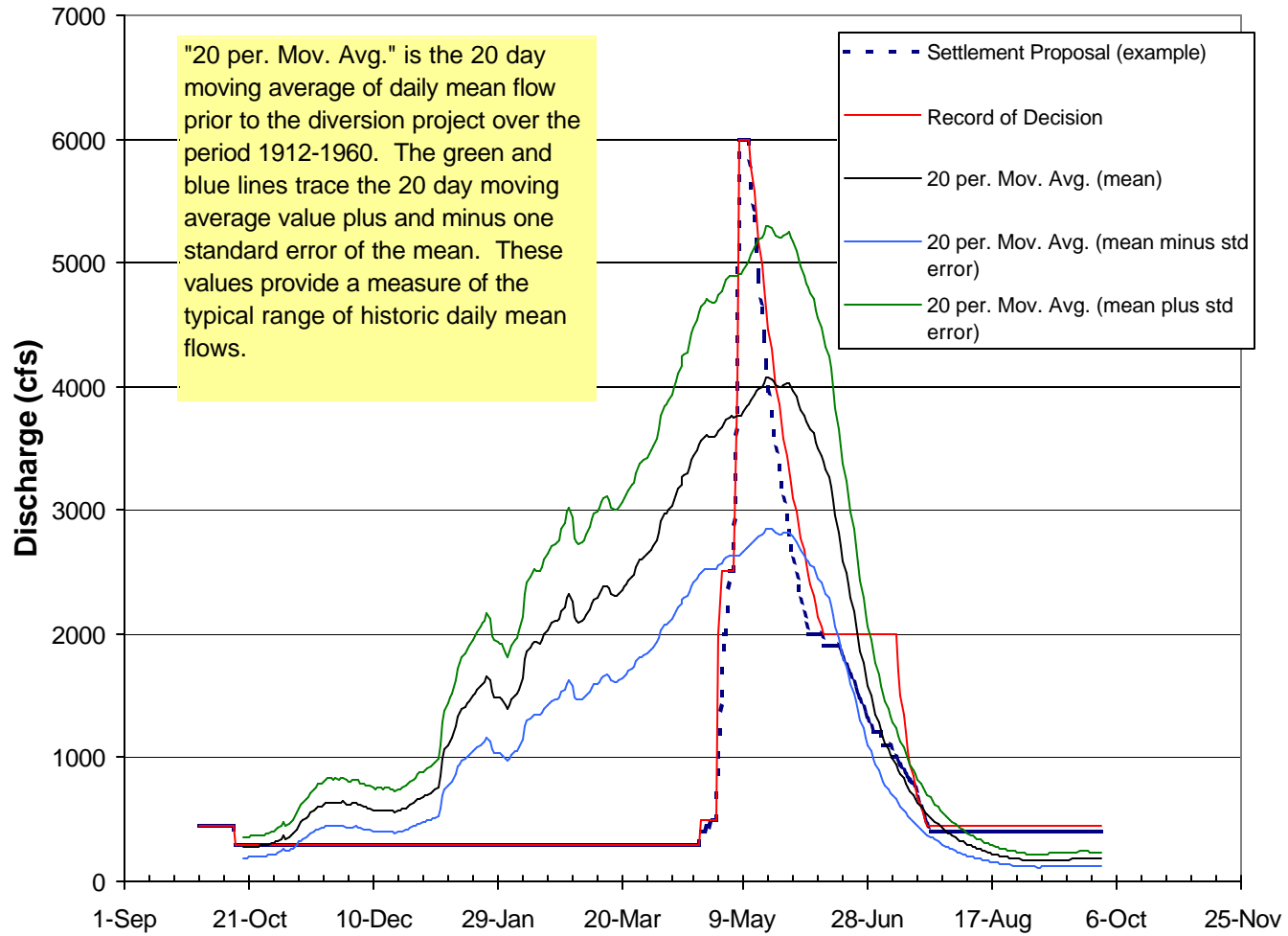
The accompanying charts compare examples of flows in the Westlands settlement proposal to flows called for in the Record of Decision as well as historic flows that occurred on the Trinity prior to the construction of Lewiston Dam for each of the climatic year categories.

- Wet Year Hydrograph shows the flows that would likely occur under the Westlands proposal compared to flows likely to occur under the Record of Decision in a wet water year.
- Normal Year Hydrograph shows the flows that would likely occur under the Westlands proposal compared to flows likely to occur under the Record of Decision in a normal water year.
- Dry Year Hydrograph shows the flows that would likely occur under the Westlands proposal compared to flows likely to occur under the Record of Decision in a dry water year.
- Dry Year – Reduced Peak Hydrograph shows an example of modified ROD flows where peak flow intended to provide a small amount of sediment transport is reduced, allowing settlement proposal flows to match the ROD recession limb intended to maintain favorable river temperatures for migrating juvenile Chinook salmon.
- Critically Dry Year Hydrograph shows the flows that would likely occur under the Westlands proposal compared to flows likely to occur under the Record of Decision in a critically dry water year.
- The Long-Term Comparison chart compares Trinity River flows between 1912 and 1960 prior to the construction of Lewiston Dam and flows that would likely have occurred under the Record of Decision and the Westlands Settlement Proposal.

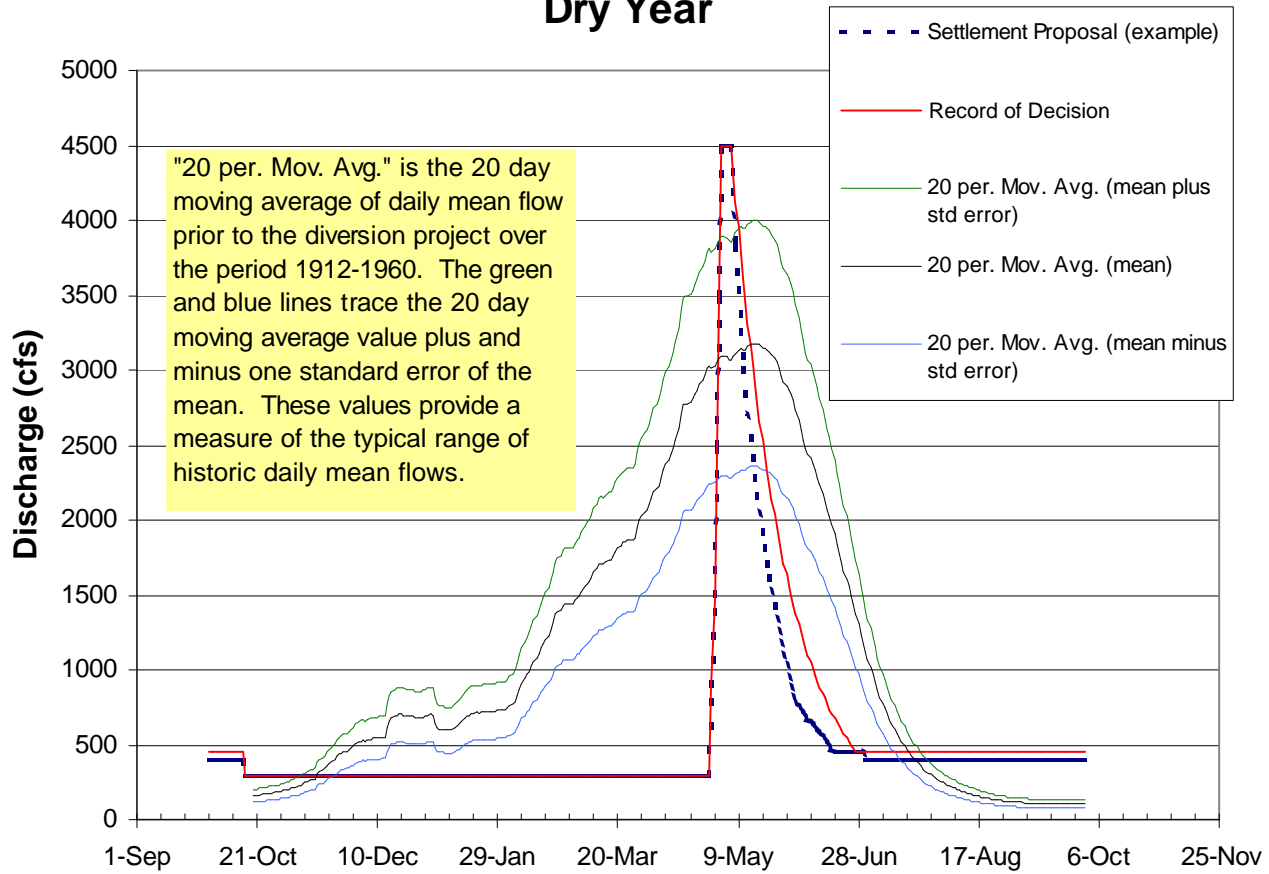
Wet Year



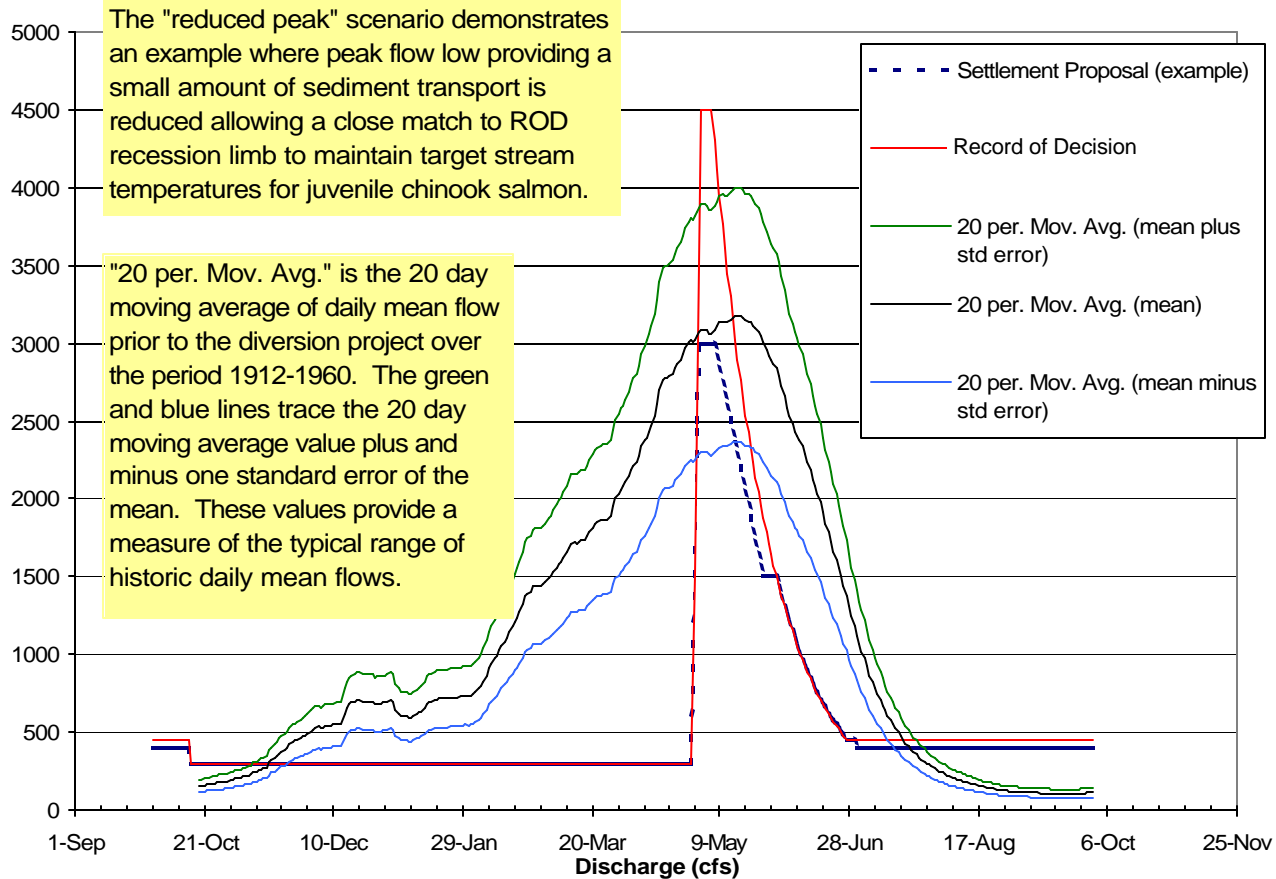
Normal Year



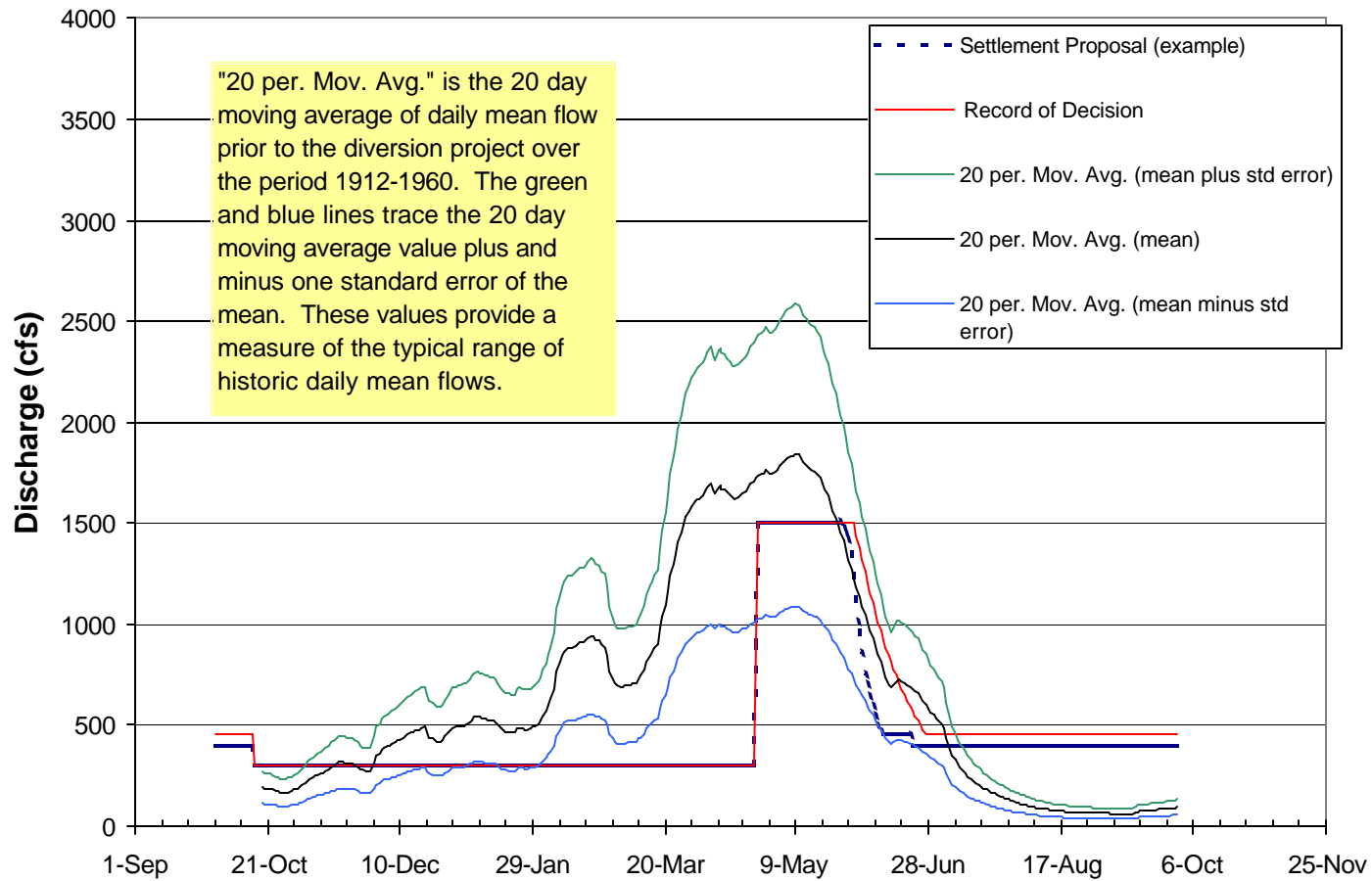
Dry Year



Dry Year-Reduced Peak



Critically Dry Year



water year	max flow	TAc-ft/yr	year class	TRFE-ROD	Settlement Proposal	Settlement Proposal Year Class
1912	9960	1029	normal	649.9	575	normal
1913	7450	1074	normal	649.9	575	normal
1914	24600	2028	ext wet	815.2	815.2	ext wet
1915	18500	2154	ext wet	815.2	701	wet
1916	22200	1506	wet	701	650	normal
1917	8250	652	dry	452.6	340	crit dry
1918	7250	602	crit dry	368.6	340	crit dry
1919	18000	1151	normal	649.9	575	normal
1920	2860	408	crit dry	368.6	340	crit dry
1921	17300	1795	wet	701	701	wet
1922	6750	783	dry	452.6	400	dry
1923	4380	686	dry	452.6	340	crit dry
1924	6940	266	crit dry	368.6	340	crit dry
1925	15700	1499	wet	701	701	wet
1926	16200	809	dry	452.6	400	dry
1927	29600	1826	wet	701	701	wet
1928	16000	1058	normal	649.9	575	normal
1929	3620	529	crit dry	368.6	340	crit dry
1930	20000	814	dry	452.6	400	dry
1931	4120	402	crit dry	368.6	340	crit dry
1932	7870	721	dry	452.6	340	crit dry
1933	6840	804	dry	452.6	400	dry
1934	11300	683	dry	452.6	340	crit dry
1935	7360	966	dry	452.6	400	dry
1936	10800	1025	dry	452.6	400	dry
1937	11700	999	dry	452.6	400	dry
1938	32400	2105	ext wet	815.2	815.2	ext wet
1939	3800	573	crit dry	368.6	340	crit dry
1940	34500	1613	wet	701	701	wet
1941	27000	2547	ext wet	815.2	815.2	ext wet
1942	19700	1804	wet	701	650	normal
1943	5940	1108	normal	649.9	575	normal
1944	4880	654	dry	452.6	340	crit dry
1945	6540	1048	normal	649.9	575	normal
1946	16300	1415	wet	701	701	wet
1947	6670	732	dry	452.6	340	crit dry
1948	30700	1205	normal	649.9	575	normal
1949	14500	1090	normal	649.9	575	normal
1950	5730	854	dry	452.6	400	dry
1951	22700	1610	wet	701	701	wet
1952	14400	1817	wet	701	701	wet
1953	14300	1612	wet	701	701	wet
1954	18900	1595	wet	701	701	wet

year	ranked	rank	probability	cumu prob	year class	no. in class
1958	2694	1	0.12	0.12	ext wet	6
1941	2547	2	0.12		ext wet	
1915	2154	3	0.12		ext wet	
1938	2105	4	0.12		ext wet	
1914	2028	5	0.12		ext wet	
1956	2027	6	0.12		ext wet	
1927	1826	7	0.22	0.35	wet	11
1952	1817	8	0.22		wet	
1942	1804	9	0.22		wet	
1921	1795	10	0.22		wet	
1940	1613	11	0.22		wet	
1953	1612	12	0.22		wet	
1951	1610	13	0.22		wet	
1954	1595	14	0.22		wet	
1916	1506	15	0.22		wet	
1925	1499	16	0.22		wet	
1946	1415	17	0.22		wet	
1948	1205	18	0.24	0.59	normal	12
1919	1151	19	0.24		normal	
1943	1108	20	0.24		normal	
1949	1090	21	0.24		normal	
1957	1083	22	0.24		normal	
1913	1074	23	0.24		normal	
1928	1058	24	0.24		normal	
1945	1048	25	0.24		normal	
1959	1042	26	0.24		normal	
1912	1029	27	0.24		normal	
1960	1025	28	0.24		normal	
1936	1025	29	0.24		normal	
1937	999	30	0.29	0.88	dry	14
1935	966	31	0.29		dry	
1950	854	32	0.29		dry	
1930	814	33	0.29		dry	
1926	809	34	0.29		dry	
1933	804	35	0.29		dry	
1922	783	36	0.29		dry	
1955	735	37	0.29		dry	
1947	732	38	0.29		dry	
1932	721	39	0.29		dry	
1923	686	40	0.29		dry	
1934	683	41	0.29		dry	
1944	654	42	0.29		dry	
1917	652	43	0.29		dry	

← These become critically dry years under settlement proposal

1955	5570	735	dry	452.6	340	crit dry	1918	602	44	0.12	1.00	crit dry	6
1956	38700	2027	ext wet	815.2	815.2	ext wet	1939	573	45	0.12		crit dry	
1957	18700	1083	normal	649.9	575	normal	1929	529	46	0.12		crit dry	
1958	26100	2694	ext wet	815.2	701	wet	1920	408	47	0.12		crit dry	
1959	19000	1042	normal	649.9	575	normal	1931	402	48	0.12		crit dry	
1960	15800	1025	normal	649.9	575	normal	1924	266	49	0.12		crit dry	

	TAF/yr	TAF/yr	TAF/yr
mean	1189.0	586.8	535.0
std dev	572	148	165
std error	81.7	21.2	23.5
	% of pre-project	49.4%	45.0%
	% of TRFE-ROD		91.2%

Comparison of Pre-project, TRFE, and Settlement Proposal Flows Applied to Lewiston Flow Record, 1912-1960

