MOFFAT
COLLECTION SYSTEM PROJECT
FINAL ENVIRONMENTAL IMPACT STATEMENT

Appendix H:
Hydrologic Data and PACSM Output

Photo provided courtesy of Denver Water.

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Appendix H **Hydrologic Data and PACSM Output**

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Note: Alternative 1a (Alt 1a) occurrences throughout this appendix refer to the Proposed Action (without the Environmental Pool) for the Moffat Collection System Project. Appendix M contains the hydrologic results for the Proposed Action with the Environmental Pool.

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Appendix H-1
Comparison of Current Conditions, Full Use of the Existing System, and EIS Alternatives with RFFAs

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Table H-1.1. Williams Fork Reservoir End-of-Month Storage Content (AF)

Content Change and % Change are based on comparisons to Current Condition

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Condition		63,090	59,103	56,731	53,670	51,905	49,068	47,395	58,353	80,872	83,701	75,769	67,567	62,269
Full Use	Content	67,279	62,987	60,338	57,035	54,953	52,169	49,568	59,898	84,785	87,070	80,553	72,532	65,764
No Act	Content	67,343	63,115	60,428	56,970	54,950	51,838	49,245	59,776	85,095	87,336	80,710	72,488	65,775
Alt 1a	Content	66,632	62,488	59,877	56,469	54,492	51,389	48,789	58,901	83,913	86,513	79,877	71,745	65,090
Alt 1c	Content	66,571	62,424	59,794	56,378	54,401	51,297	48,697	58,810	83,867	86,469	79,831	71,676	65,018
Alt 8a	Content	66,838	62,665	60,061	56,666	54,689	51,587	48,988	59,100	84,118	86,634	80,061	71,940	65,279
Alt 10a	Content	66,849	62,676	60,072	56,676	54,700	51,598	48,999	59,111	84,134	86,642	80,062	71,942	65,288
Alt 13a	Content	66,827	62,686	60,081	56,687	54,710	51,623	49,023	59,426	84,265	86,723	80,061	71,939	65,338
		Content Change from Current Condition												
Full Use	Change	4,189	3,884	3,607	3,365	3,049	3,101	2,172	1,545	3,913	3,370	4,784	4,965	3,495
No Act	Change	4,253	4,012	3,696	3,301	3,046	2,770	1,849	1,423	4,222	3,635	4,942	4,922	3,506
Alt 1a	Change	3,541	3,385	3,146	2,799	2,588	2,321	1,393	548	3,041	2,812	4,108	4,179	2,822
Alt 1c	Change	3,480	3,320	3,062	2,708	2,496	2,229	1,302	457	2,995	2,768	4,063	4,110	2,749
Alt 8a	Change	3,748	3,562	3,330	2,996	2,784	2,519	1,593	747	3,246	2,933	4,292	4,373	3,010
Alt 10a	Change	3,759	3,572	3,340	3,007	2,795	2,530	1,604	758	3,261	2,942	4,293	4,375	3,020
Alt 13a	Change	3,737	3,582	3,349	3,017	2,806	2,555	1,628	1,073	3,393	3,023	4,293	4,373	3,069
		Percent change in content from Current Condition												
Full Use	% Change	7%	7%	6%	6%	6%	6%	5%	3%	5%	4%	6%	7%	6%
No Act	% Change	7%	7%	7%	6%	6%	6%	4%	2%	5%	4%	7%	7%	6%
Alt 1a	% Change	6%	6%	6%	5%	5%	5%	3%	1%	4%	3%	5%	6%	5%
Alt 1c	% Change	6%	6%	5%	5%	5%	5%	3%	1%	4%	3%	5%	6%	4%
Alt 8a	% Change	6%	6%	6%	6%	5%	5%	3%	1%	4%	4%	6%	6%	5%
Alt 10a	% Change	6%	6%	6%	6%	5%	5%	3%	1%	4%	4%	6%	6%	5%
Alt 13a	% Change	6%	6%	6%	6%	5%	5%	3%	2%	4%	4%	6%	6%	5%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Condition		63,598	59,817	57,828	55,860	54,826	53,761	53,890	60,166	67,468	65,806	54,552	41,873	57,454
Full Use	Content	69,025	65,218	63,095	61,162	60,132	59,055	59,240	66,027	75,181	69,113	58,112	44,944	62,525
No Act	Content	69,224	65,416	63,293	61,360	60,330	59,252	59,438	66,224	75,377	69,308	58,233	45,065	62,710
Alt 1a	Content	68,981	65,174	63,051	61,118	60,088	59,010	59,195	65,982	75,137	69,166	58,118	44,951	62,498
Alt 1c	Content	69,073	65,265	63,143	61,209	60,179	59,102	59,287	66,074	75,228	69,207	58,158	44,991	62,576
Alt 8a	Content	68,986	65,178	63,055	61,122	60,092	59,014	59,200	65,987	75,141	69,171	58,123	44,955	62,502
Alt 10a	Content	68,995	65,188	63,065	61,131	60,101	59,024	59,210	65,997	75,151	69,180	58,133	44,965	62,512
Alt 13a	Content	68,988	65,181	63,058	61,124	60,095	59,017	59,203	65,989	75,144	69,174	58,125	44,958	62,505
		Content Change from Current Condition												
Full Use	Change	5,428	5,401	5,267	5,302	5,306	5,294	5,351	5,861	7,714	3,307	3,560	3,070	5,072
No Act	Change	5,627	5,599	5,465	5,500	5,504	5,491	5,548	6,058	7,909	3,502	3,681	3,192	5,256
Alt 1a	Change	5,383	5,357	5,223	5,258	5,262	5,249	5,306	5,816	7,669	3,360	3,566	3,078	5,044
Alt 1c	Change	5,476	5,449	5,315	5,349	5,353	5,341	5,398	5,907	7,760	3,401	3,606	3,118	5,123
Alt 8a	Change	5,388	5,361	5,227	5,262	5,266	5,253	5,311	5,821	7,674	3,365	3,571	3,082	5,048
Alt 10a	Change	5,397	5,371	5,237	5,272	5,275	5,263	5,320	5,830	7,683	3,374	3,580	3,091	5,058
Alt 13a	Change	5,390	5,364	5,230	5,265	5,269	5,256	5,313	5,823	7,676	3,367	3,573	3,085	5,051
		Percent change in content from Current Condition												
Full Use	% Change	9%	9%	9%	9%	10%	10%	10%	10%	11%	5%	7%	7%	9%
No Act	% Change	9%	9%	9%	10%	10%	10%	10%	10%	12%	5%	7%	8%	9%
Alt 1a	% Change	8%	9%	9%	9%	10%	10%	10%	10%	11%	5%	7%	7%	9%
Alt 1c	% Change	9%	9%	9%	10%	10%	10%	10%	10%	12%	5%	7%	7%	9%
Alt 8a	% Change	8%	9%	9%	9%	10%	10%	10%	10%	11%	5%	7%	7%	9%
Alt 10a	% Change	8%	9%	9%	9%	10%	10%	10%	10%	11%	5%	7%	7%	9%
Alt 13a	% Change	8%	9%	9%	9%	10%	10%	10%	10%	11%	5%	7%	7%	9%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Condition		74,801	71,387	69,035	66,539	64,810	58,738	53,885	69,034	95,105	96,799	95,125	90,062	75,443
Full Use	Content	81,391	77,626	74,057	70,308	68,009	60,599	53,144	68,439	96,677	96,802	95,603	90,607	77,772
No Act	Content	80,109	76,096	72,332	68,531	66,335	58,855	51,400	66,662	96,678	96,802	95,605	90,566	76,664
Alt 1a	Content	79,361	75,521	72,212	68,754	66,719	59,268	51,846	66,770	96,499	96,802	95,681	90,610	76,670
Alt 1c	Content	79,363	75,517	72,075	68,564	66,530	59,077	51,659	66,583	96,499	96,802	95,681	90,625	76,581
Alt 8a	Content	79,379	75,557	72,301	68,837	66,802	59,355	51,934	66,858	96,499	96,802	95,681	90,622	76,719
Alt 10a	Content	79,381	75,554	72,301	68,835	66,801	59,353	51,932	66,856	96,499	96,802	95,681	90,623	76,718
Alt 13a	Content	79,376	75,556	72,299	68,834	66,799	59,352	51,933	66,857	96,499	96,802	95,681	90,623	76,718
		Content Change from Current Condition												
Full Use	Change	6,590	6,238	5,022	3,769	3,198	1,861	-741	-595	1,572	3	478	545	2,328
No Act	Change	5,308	4,709	3,298	1,992	1,525	117	-2,485	-2,372	1,573	3	480	504	1,221
Alt 1a	Change	4,560	4,134	3,177	2,215	1,909	530	-2,039	-2,264	1,394	3	556	548	1,227
Alt 1c	Change	4,562	4,130	3,041	2,025	1,719	339	-2,226	-2,451	1,394	3	556	562	1,138
Alt 8a	Change	4,578	4,169	3,266	2,298	1,992	617	-1,951	-2,176	1,394	3	556	560	1,275
Alt 10a	Change	4,580	4,167	3,266	2,297	1,991	615	-1,953	-2,179	1,394	3	556	561	1,275
Alt 13a	Change	4,575	4,169	3,264	2,295	1,989	614	-1,951	-2,177	1,394	3	556	561	1,274
		Percent change in content from Current Condition												
Full Use	% Change	9%	9%	7%	6%	5%	3%	-1%	-1%	2%	0%	1%	1%	3%
No Act	% Change	7%	7%	5%	3%	2%	0%	-5%	-3%	2%	0%	1%	1%	2%
Alt 1a	% Change	6%	6%	5%	3%	3%	1%	-4%	-3%	1%	0%	1%	1%	2%
Alt 1c	% Change	6%	6%	4%	3%	3%	1%	-4%	-4%	1%	0%	1%	1%	2%
Alt 8a	% Change	6%	6%	5%	3%	3%	1%	-4%	-3%	1%	0%	1%	1%	2%
Alt 10a	% Change	6%	6%	5%	3%	3%	1%	-4%	-3%	1%	0%	1%	1%	2%
Alt 13a	% Change	6%	6%	5%	3%	3%	1%	-4%	-3%	1%	0%	1%	1%	2%

Table H-1.2. Williams Fork Reservoir End-of-Month Elevations (feet)

Elevation Change based on comparisons to Current Condition

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Condition		7,784	7,780	7,778	7,774	7,772	7,769	7,767	7,779	7,799	7,801	7,795	7,788	7,782
Full Use	Elevation	7,788	7,784	7,781	7,777	7,775	7,772	7,770	7,781	7,802	7,804	7,799	7,792	7,785
No Act	Elevation	7,788	7,784	7,781	7,777	7,774	7,771	7,769	7,781	7,802	7,804	7,799	7,792	7,785
Alt 1a	Elevation	7,787	7,783	7,781	7,777	7,774	7,771	7,768	7,780	7,802	7,803	7,798	7,792	7,785
Alt 1c	Elevation	7,787	7,783	7,781	7,777	7,774	7,771	7,768	7,780	7,801	7,803	7,798	7,792	7,785
Alt 8a	Elevation	7,787	7,784	7,781	7,777	7,774	7,771	7,769	7,780	7,802	7,803	7,798	7,792	7,785
Alt 10a	Elevation	7,787	7,784	7,781	7,777	7,774	7,771	7,769	7,780	7,802	7,803	7,798	7,792	7,785
Alt 13a	Elevation	7,787	7,784	7,781	7,777	7,774	7,771	7,769	7,781	7,802	7,804	7,798	7,792	7,785
Elevation Change from Current Condition														
Full Use	Change	4	4	4	3	3	3	2	2	3	3	4	4	3
No Act	Change	4	4	4	3	3	3	2	1	3	3	4	4	3
Alt 1a	Change	4	3	3	3	2	2	1	1	2	2	3	4	3
Alt 1c	Change	3	3	3	3	2	2	1	1	2	2	3	4	3
Alt 8a	Change	4	3	3	3	3	2	1	1	2	2	4	4	3
Alt 10a	Change	4	3	3	3	3	2	1	1	2	2	4	4	3
Alt 13a	Change	4	4	3	3	3	2	1	1	3	2	4	4	3
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Condition		7,785	7,782	7,780	7,778	7,777	7,776	7,776	7,782	7,789	7,787	7,778	7,765	7,780
Full Use	Existing Sys	7,790	7,787	7,785	7,783	7,782	7,781	7,781	7,787	7,795	7,790	7,781	7,768	7,784
No Act	Elevation	7,790	7,787	7,785	7,783	7,782	7,781	7,781	7,788	7,795	7,790	7,781	7,768	7,784
Alt 1a	Elevation	7,790	7,787	7,785	7,783	7,782	7,781	7,781	7,787	7,795	7,790	7,781	7,768	7,784
Alt 1c	Elevation	7,790	7,787	7,785	7,783	7,782	7,781	7,781	7,787	7,795	7,790	7,781	7,768	7,784
Alt 8a	Elevation	7,790	7,787	7,785	7,783	7,782	7,781	7,781	7,787	7,795	7,790	7,781	7,768	7,784
Alt 10a	Elevation	7,790	7,787	7,785	7,783	7,782	7,781	7,781	7,787	7,795	7,790	7,781	7,768	7,784
Alt 13a	Elevation	7,790	7,787	7,785	7,783	7,782	7,781	7,781	7,787	7,795	7,790	7,781	7,768	7,784
Elevation Change from Current Condition														
Full Use	Change	5	5	5	5	5	5	5	5	6	3	3	3	4
No Act	Change	5	5	5	5	5	5	5	5	7	3	3	3	5
Alt 1a	Change	5	5	5	5	5	5	5	5	6	3	3	3	4
Alt 1c	Change	5	5	5	5	5	5	5	5	6	3	3	3	4
Alt 8a	Change	5	5	5	5	5	5	5	5	6	3	3	3	4
Alt 10a	Change	5	5	5	5	5	5	5	5	6	3	3	3	4
Alt 13a	Change	5	5	5	5	5	5	5	5	6	3	3	3	4
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Condition		7,793	7,791	7,789	7,787	7,785	7,779	7,776	7,789	7,810	7,811	7,810	7,806	7,794
Full Use	Elevation	7,801	7,798	7,795	7,791	7,789	7,783	7,775	7,789	7,811	7,811	7,810	7,807	7,797
No Act	Elevation	7,800	7,796	7,793	7,790	7,788	7,781	7,774	7,788	7,811	7,811	7,810	7,807	7,796
Alt 1a	Elevation	7,799	7,796	7,793	7,790	7,788	7,782	7,774	7,788	7,811	7,811	7,810	7,807	7,796
Alt 1c	Elevation	7,799	7,796	7,793	7,790	7,788	7,782	7,774	7,788	7,811	7,811	7,810	7,807	7,796
Alt 8a	Elevation	7,799	7,796	7,793	7,790	7,788	7,782	7,774	7,788	7,811	7,811	7,810	7,807	7,796
Alt 10a	Elevation	7,799	7,796	7,793	7,790	7,788	7,782	7,774	7,788	7,811	7,811	7,810	7,807	7,796
Alt 13a	Elevation	7,799	7,796	7,793	7,790	7,788	7,782	7,774	7,788	7,811	7,811	7,810	7,807	7,796
Elevation Change from Current Condition														
Full Use	Change	7	7	6	5	4	3	0	0	1	0	0	0	3
No Act	Change	6	5	4	3	3	2	-2	-1	1	0	0	0	2
Alt 1a	Change	5	5	4	3	3	2	-1	-1	1	0	0	0	2
Alt 1c	Change	5	5	4	3	3	2	-2	-1	1	0	0	0	2
Alt 8a	Change	5	5	4	3	3	2	-1	-1	1	0	0	0	2
Alt 10a	Change	5	5	4	3	3	2	-1	-1	1	0	0	0	2
Alt 13a	Change	5	5	4	3	3	2	-1	-1	1	0	0	0	2

Table H-1.3. Williams Fork Reservoir End-of-Month Surface Area (acres)

Surface Area Change and % Change are based on comparisons to Current Condition

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Condition		1,164	1,110	1,078	1,033	1,006	967	947	1,102	1,405	1,445	1,337	1,225	1,152
Full Use	Surface Area	1,219	1,161	1,126	1,078	1,046	1,008	976	1,122	1,460	1,491	1,401	1,291	1,198
No Act	Surface Area	1,220	1,163	1,127	1,076	1,045	1,002	969	1,120	1,464	1,495	1,403	1,290	1,198
Alt 1a	Surface Area	1,210	1,155	1,120	1,070	1,039	996	963	1,109	1,447	1,484	1,391	1,280	1,189
Alt 1c	Surface Area	1,209	1,154	1,119	1,069	1,038	995	962	1,108	1,446	1,483	1,391	1,279	1,188
Alt 8a	Surface Area	1,213	1,157	1,122	1,072	1,042	999	966	1,111	1,450	1,486	1,394	1,282	1,191
Alt 10a	Surface Area	1,213	1,157	1,123	1,073	1,042	999	966	1,112	1,450	1,486	1,394	1,282	1,191
Alt 13a	Surface Area	1,213	1,157	1,123	1,073	1,042	999	967	1,116	1,452	1,487	1,394	1,282	1,192
Surface Area Change from Current Condition														
Full Use	Change	55	51	48	45	41	41	29	20	54	46	64	66	47
No Act	Change	56	53	49	43	40	35	22	18	58	50	66	65	46
Alt 1a	Change	47	45	42	37	34	29	16	6	42	39	55	55	37
Alt 1c	Change	46	44	41	36	33	28	15	5	41	38	54	54	36
Alt 8a	Change	49	47	44	39	36	32	19	9	45	40	57	58	40
Alt 10a	Change	49	47	44	40	37	32	19	9	45	41	57	58	40
Alt 13a	Change	49	47	45	40	37	32	20	13	47	42	58	58	41
Percent change in surface area from Current Condition														
Full Use	% Change	5%	5%	4%	4%	4%	4%	3%	2%	4%	3%	5%	5%	4%
No Act	% Change	5%	5%	5%	4%	4%	4%	2%	2%	4%	3%	5%	5%	4%
Alt 1a	% Change	4%	4%	4%	4%	3%	3%	2%	1%	3%	3%	4%	4%	3%
Alt 1c	% Change	4%	4%	4%	3%	3%	3%	2%	0%	3%	3%	4%	4%	3%
Alt 8a	% Change	4%	4%	4%	4%	4%	3%	2%	1%	3%	3%	4%	5%	3%
Alt 10a	% Change	4%	4%	4%	4%	4%	3%	2%	1%	3%	3%	4%	5%	3%
Alt 13a	% Change	4%	4%	4%	4%	4%	3%	2%	1%	3%	3%	4%	5%	4%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Condition		1,172	1,123	1,097	1,071	1,058	1,044	1,046	1,128	1,223	1,201	1,057	889	1,092
Full Use	Surface Area	1,242	1,193	1,165	1,139	1,126	1,112	1,115	1,204	1,324	1,244	1,102	930	1,158
No Act	Surface Area	1,245	1,195	1,168	1,142	1,129	1,115	1,117	1,206	1,326	1,247	1,104	931	1,160
Alt 1a	Surface Area	1,242	1,192	1,165	1,139	1,125	1,111	1,114	1,203	1,323	1,245	1,102	930	1,158
Alt 1c	Surface Area	1,243	1,193	1,166	1,140	1,127	1,113	1,115	1,204	1,324	1,245	1,103	930	1,159
Alt 8a	Surface Area	1,242	1,192	1,165	1,139	1,126	1,112	1,114	1,203	1,323	1,245	1,102	930	1,158
Alt 10a	Surface Area	1,242	1,192	1,165	1,139	1,126	1,112	1,114	1,203	1,323	1,245	1,103	930	1,158
Alt 13a	Surface Area	1,242	1,192	1,165	1,139	1,126	1,112	1,114	1,203	1,323	1,245	1,103	930	1,158
Surface Area Change from Current Condition														
Full Use	Change	70	70	68	68	68	68	69	76	101	43	46	40	66
No Act	Change	73	72	70	71	71	71	72	78	103	45	47	42	68
Alt 1a	Change	70	69	67	68	68	68	68	75	100	44	46	40	65
Alt 1c	Change	71	70	69	69	69	69	70	76	101	44	46	41	66
Alt 8a	Change	70	69	67	68	68	68	68	75	100	44	46	41	65
Alt 10a	Change	70	69	68	68	68	68	69	75	101	44	46	41	65
Alt 13a	Change	70	69	67	68	68	68	69	75	100	44	46	41	65
Percent change in surface area from Current Condition														
Full Use	% Change	6%	6%	6%	6%	6%	7%	7%	7%	8%	4%	4%	5%	6%
No Act	% Change	6%	6%	6%	7%	7%	7%	7%	7%	8%	4%	4%	5%	6%
Alt 1a	% Change	6%	6%	6%	6%	6%	6%	7%	7%	8%	4%	4%	5%	6%
Alt 1c	% Change	6%	6%	6%	6%	7%	7%	7%	7%	8%	4%	4%	5%	6%
Alt 8a	% Change	6%	6%	6%	6%	6%	6%	7%	7%	8%	4%	4%	5%	6%
Alt 10a	% Change	6%	6%	6%	6%	6%	7%	7%	7%	8%	4%	4%	5%	6%
Alt 13a	% Change	6%	6%	6%	6%	6%	6%	7%	7%	8%	4%	4%	5%	6%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Condition		1,320	1,271	1,240	1,206	1,182	1,103	1,044	1,245	1,603	1,628	1,603	1,529	1,331
Full Use	Surface Area	1,404	1,354	1,307	1,259	1,230	1,134	1,036	1,236	1,626	1,628	1,610	1,536	1,363
No Act	Surface Area	1,387	1,334	1,285	1,236	1,208	1,112	1,013	1,212	1,626	1,628	1,610	1,535	1,349
Alt 1a	Surface Area	1,377	1,326	1,284	1,239	1,213	1,117	1,019	1,213	1,623	1,628	1,611	1,536	1,349
Alt 1c	Surface Area	1,377	1,326	1,282	1,237	1,211	1,115	1,017	1,211	1,623	1,628	1,611	1,536	1,348
Alt 8a	Surface Area	1,377	1,327	1,285	1,240	1,214	1,118	1,020	1,214	1,623	1,628	1,611	1,536	1,349
Alt 10a	Surface Area	1,377	1,327	1,285	1,240	1,214	1,118	1,020	1,214	1,623	1,628	1,611	1,536	1,349
Alt 13a	Surface Area	1,377	1,327	1,285	1,240	1,214	1,118	1,020	1,214	1,623	1,628	1,611	1,536	1,349
Surface Area Change from Current Condition														
Full Use	Change	84	82	68	53	47	31	-8	-9	23	0	7	7	32
No Act	Change	67	62	45	31	26	9	-31	-33	23	0	7	6	18
Alt 1a	Change	57	55	44	33	31	14	-25	-32	21	0	8	7	18
Alt 1c	Change	57	55	42	31	28	12	-28	-34	21	0	8	7	17
Alt 8a	Change	57	55	45	34	32	15	-24	-31	21	0	8	7	18
Alt 10a	Change	57	55	45	34	32	15	-24	-31	21	0	8	7	18
Alt 13a	Change	57	55	45	34	32	15	-24	-31	21	0	8	7	18
Percent change in surface area from Current Condition														
Full Use	% Change	6%	6%	5%	4%	4%	3%	-1%	-1%	1%	0%	0%	0%	2%
No Act	% Change	5%	5%	4%	3%	2%	1%	-3%	-3%	1%	0%	0%	0%	1%
Alt 1a	% Change	4%	4%	4%	3%	3%	1%	-2%	-3%	1%	0%	1%	0%	1%
Alt 1c	% Change	4%	4%	3%	3%	2%	1%	-3%	-3%	1%	0%	1%	0%	1%
Alt 8a	% Change	4%	4%	4%	3%	3%	1%	-2%	-2%	1%	0%	1%	0%	1%
Alt 10a	% Change	4%	4%	4%	3%	3%	1%	-2%	-2%	1%	0%	1%	0%	1%
Alt 13a	% Change	4%	4%	4%	3%	3%	1%	-2%	-2%	1%	0%	1%	0%	1%

Appendix H-1
Comparison of Current Conditions, Full Use of the Existing System, and EIS Alternatives with RFFAs

Table H-1.4. Dillon Reservoir End-of-Month Storage Content (AF)

Content Change and % Change are based on comparisons to Current Condition

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Condition		223,415	219,912	216,056	212,694	209,369	206,448	203,948	213,881	233,547	242,188	237,014	229,509	220,665
Full Use	Content	202,971	198,388	193,373	189,316	185,479	182,138	179,665	196,114	224,501	233,033	225,013	211,842	201,820
No Act	Content	193,263	188,448	182,934	178,249	173,805	169,863	166,995	184,381	217,348	225,855	217,500	202,970	191,801
Alt 1a	Content	195,471	192,697	189,686	187,379	185,143	183,278	181,321	194,331	222,406	228,570	218,430	204,065	198,565
Alt 1c	Content	195,034	192,255	189,253	186,961	184,718	182,850	180,911	193,997	222,204	228,407	218,083	203,628	198,192
Alt 8a	Content	196,073	193,285	190,257	187,920	185,661	183,780	181,884	194,948	222,768	228,943	218,913	204,660	199,091
Alt 10a	Content	196,024	193,237	190,207	187,867	185,610	183,731	181,827	194,870	222,695	228,888	218,874	204,599	199,036
Alt 13a	Content	195,961	193,198	190,189	187,900	185,655	183,802	181,883	194,888	222,775	228,912	218,826	204,519	199,042
		Content Change from Current Condition												
Full Use	Change	-20,443	-21,524	-22,683	-23,378	-23,890	-24,310	-24,282	-17,767	-9,046	-9,155	-12,001	-17,667	-18,846
No Act	Change	-30,152	-31,464	-33,122	-34,445	-35,564	-36,586	-36,953	-29,501	-16,199	-16,334	-19,514	-26,539	-28,864
Alt 1a	Change	-27,944	-27,214	-26,370	-25,315	-24,226	-23,170	-22,627	-19,550	-11,141	-13,619	-18,584	-25,443	-22,100
Alt 1c	Change	-28,381	-27,657	-26,803	-25,733	-24,651	-23,598	-23,037	-19,884	-11,343	-13,781	-18,930	-25,880	-22,473
Alt 8a	Change	-27,342	-26,627	-25,798	-24,774	-23,708	-22,668	-22,064	-18,933	-10,779	-13,246	-18,101	-24,848	-21,574
Alt 10a	Change	-27,390	-26,675	-25,849	-24,827	-23,760	-22,718	-22,121	-19,012	-10,852	-13,300	-18,140	-24,910	-21,629
Alt 13a	Change	-27,454	-26,714	-25,866	-24,794	-23,714	-22,646	-22,065	-18,993	-10,772	-13,277	-18,188	-24,990	-21,623
		Percent change in content from Current Condition												
Full Use	% Change	-9%	-10%	-10%	-11%	-11%	-12%	-12%	-8%	-4%	-4%	-5%	-8%	-9%
No Act	% Change	-13%	-14%	-15%	-16%	-17%	-18%	-18%	-14%	-7%	-7%	-8%	-12%	-13%
Alt 1a	% Change	-13%	-12%	-12%	-12%	-12%	-11%	-11%	-9%	-5%	-6%	-8%	-11%	-10%
Alt 1c	% Change	-13%	-13%	-12%	-12%	-12%	-11%	-11%	-9%	-5%	-6%	-8%	-11%	-10%
Alt 8a	% Change	-12%	-12%	-12%	-12%	-11%	-11%	-11%	-9%	-5%	-5%	-8%	-11%	-10%
Alt 10a	% Change	-12%	-12%	-12%	-12%	-11%	-11%	-11%	-9%	-5%	-5%	-8%	-11%	-10%
Alt 13a	% Change	-12%	-12%	-12%	-12%	-11%	-11%	-11%	-9%	-5%	-5%	-8%	-11%	-10%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Condition		205,329	201,321	197,328	192,327	187,497	183,564	175,611	181,311	189,300	173,939	158,825	150,725	183,090
Full Use	Content	180,823	174,229	167,969	161,961	156,429	151,587	142,552	145,439	150,276	136,019	126,193	115,861	150,778
No Act	Content	172,539	165,615	158,665	151,966	145,724	140,092	130,657	133,455	137,845	122,711	113,074	104,147	139,707
Alt 1a	Content	176,714	172,005	167,513	163,132	159,072	156,154	147,817	148,183	149,573	132,642	121,525	112,535	150,572
Alt 1c	Content	176,229	171,526	167,035	162,657	158,580	155,661	147,343	147,725	149,170	132,401	121,281	112,390	150,167
Alt 8a	Content	176,699	171,966	167,466	163,055	158,977	156,045	147,747	148,107	149,536	132,618	121,565	112,561	150,529
Alt 10a	Content	176,532	171,781	167,281	162,898	158,837	155,892	147,568	147,923	149,326	132,459	121,440	112,449	150,366
Alt 13a	Content	176,887	172,180	167,689	163,311	159,214	156,289	147,971	148,302	149,663	132,797	121,637	112,627	150,714
		Content Change from Current Condition												
Full Use	Change	-24,506	-27,092	-29,359	-30,366	-31,068	-31,977	-33,059	-35,872	-39,024	-37,920	-32,632	-34,864	-32,311
No Act	Change	-32,790	-35,706	-38,663	-40,361	-41,774	-43,472	-44,954	-47,856	-51,455	-51,229	-45,751	-46,579	-43,382
Alt 1a	Change	-28,615	-29,316	-29,815	-29,195	-28,426	-27,410	-27,794	-33,128	-39,727	-41,297	-37,301	-38,190	-32,518
Alt 1c	Change	-29,100	-29,794	-30,293	-29,670	-28,917	-27,903	-28,268	-33,586	-40,129	-41,538	-37,544	-38,335	-32,923
Alt 8a	Change	-28,631	-29,355	-29,862	-29,272	-28,521	-27,518	-27,864	-33,203	-39,764	-41,321	-37,260	-38,164	-32,561
Alt 10a	Change	-28,797	-29,540	-30,046	-29,429	-28,661	-27,672	-28,043	-33,388	-39,973	-41,480	-37,385	-38,276	-32,724
Alt 13a	Change	-28,443	-29,141	-29,639	-29,016	-28,283	-27,274	-27,640	-33,009	-39,637	-41,142	-37,188	-38,098	-32,376
		Percent change in content from Current Condition												
Full Use	% Change	-12%	-13%	-15%	-16%	-17%	-17%	-19%	-20%	-21%	-22%	-21%	-23%	-18%
No Act	% Change	-16%	-18%	-20%	-21%	-22%	-24%	-26%	-26%	-27%	-29%	-29%	-31%	-24%
Alt 1a	% Change	-14%	-15%	-15%	-15%	-15%	-15%	-16%	-18%	-21%	-24%	-23%	-25%	-18%
Alt 1c	% Change	-14%	-15%	-15%	-15%	-15%	-15%	-16%	-19%	-21%	-24%	-24%	-25%	-18%
Alt 8a	% Change	-14%	-15%	-15%	-15%	-15%	-15%	-16%	-18%	-21%	-24%	-23%	-25%	-18%
Alt 10a	% Change	-14%	-15%	-15%	-15%	-15%	-15%	-16%	-18%	-21%	-24%	-24%	-25%	-18%
Alt 13a	% Change	-14%	-14%	-15%	-15%	-15%	-15%	-16%	-18%	-21%	-24%	-23%	-25%	-18%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Condition		254,405	252,699	250,797	249,151	247,205	246,553	245,607	227,879	248,593	257,156	255,085	250,230	248,780
Full Use	Content	245,149	243,214	240,221	238,604	236,801	235,815	236,572	240,586	248,575	257,131	251,226	239,474	242,781
No Act	Content	235,957	233,877	230,008	227,614	225,164	223,751	225,424	234,385	248,586	257,094	250,053	236,918	235,736
Alt 1a	Content	236,675	236,472	235,304	234,749	233,956	234,073	235,051	238,868	247,792	256,772	249,138	236,177	239,586
Alt 1c	Content	235,957	235,750	234,703	234,211	233,416	233,532	234,507	238,457	247,756	256,722	248,770	235,626	239,117
Alt 8a	Content	238,478	238,230	237,000	236,445	235,629	235,754	236,737	240,785	248,331	256,734	249,032	236,095	240,771
Alt 10a	Content	238,523	238,275	237,046	236,496	235,680	235,801	236,785	240,659	248,169	256,691	249,022	236,065	240,768
Alt 13a	Content	237,733	237,520	236,275	235,713	234,917	235,062	236,045	240,034	248,189	256,662	249,042	236,029	240,268
		Content Change from Current Condition												
Full Use	Change	-9,256	-9,485	-10,576	-10,548	-10,404	-10,739	-9,035	12,707	-19	-25	-3,860	-10,756	-6,000
No Act	Change	-18,448	-18,822	-20,789	-21,538	-22,041	-22,803	-20,183	6,506	-8	-62	-5,032	-13,312	-13,044
Alt 1a	Change	-17,730	-16,226	-15,493	-14,402	-13,248	-12,480	-10,556	10,989	-802	-383	-5,948	-14,053	-9,194
Alt 1c	Change	-18,448	-16,949	-16,093	-14,940	-13,789	-13,021	-11,101	10,577	-838	-434	-6,315	-14,604	-9,663
Alt 8a	Change	-15,927	-14,468	-13,796	-12,706	-11,576	-10,799	-8,870	12,906	-262	-422	-6,053	-14,135	-8,009
Alt 10a	Change	-15,882	-14,424	-13,750	-12,655	-11,525	-10,752	-8,822	12,780	-424	-465	-6,064	-14,165	-8,012
Alt 13a	Change	-16,672	-15,179	-14,522	-13,438	-12,288	-11,492	-9,562	12,154	-405	-494	-6,043	-14,201	-8,512
		Percent change in content from Current Condition												
Full Use	% Change	-4%	-4%	-4%	-4%	-4%	-4%	-4%	6%	0%	0%	-2%	-4%	-2%
No Act	% Change	-7%	-7%	-8%	-9%	-9%	-9%	-8%	3%	0%	0%	-2%	-5%	-5%
Alt 1a	% Change	-7%	-6%	-6%	-6%	-5%	-5%	-4%	5%	0%	0%	-2%	-6%	-4%
Alt 1c	% Change	-7%	-7%	-6%	-6%	-6%	-5%	-5%	5%	0%	0%	-2%	-6%	-4%
Alt 8a	% Change	-6%	-6%	-6%	-5%	-5%	-4%	-4%	6%	0%	0%	-2%	-6%	-3%
Alt 10a	% Change	-6%	-6%	-5%	-5%	-5%	-4%	-4%	6%	0%	0%	-2%	-6%	-3%
Alt 13a	% Change	-7%	-6%	-6%	-5%	-5%	-5%	-4%	5%	0%	0%	-2%	-6%	-3%

Table H-1.5. Dillon Reservoir End-of-Month Elevations (feet)

Elevation Change based on comparisons to Current Condition

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Condition		9,004	9,003	9,001	9,000	8,998	8,997	8,996	9,000	9,008	9,011	9,009	9,006	9,003
Full Use	Elevation	8,996	8,993	8,991	8,989	8,987	8,986	8,985	8,992	9,005	9,007	9,004	8,999	8,995
No Act	Elevation	8,991	8,989	8,986	8,984	8,981	8,979	8,977	8,987	9,002	9,004	9,001	8,995	8,990
Alt 1a	Elevation	8,993	8,991	8,990	8,989	8,987	8,986	8,986	8,992	9,004	9,006	9,002	8,996	8,993
Alt 1c	Elevation	8,992	8,991	8,990	8,988	8,987	8,986	8,985	8,992	9,004	9,006	9,002	8,996	8,993
Alt 8a	Elevation	8,993	8,991	8,990	8,989	8,988	8,987	8,986	8,992	9,004	9,006	9,002	8,996	8,994
Alt 10a	Elevation	8,993	8,991	8,990	8,989	8,988	8,987	8,986	8,992	9,004	9,006	9,002	8,996	8,994
Alt 13a	Elevation	8,993	8,991	8,990	8,989	8,988	8,987	8,986	8,992	9,004	9,006	9,002	8,996	8,994
		Elevation Change from Current Condition												
Full Use	Change	-8	-9	-10	-10	-11	-11	-12	-8	-4	-4	-5	-7	-8
No Act	Change	-13	-14	-15	-16	-17	-18	-19	-13	-7	-7	-8	-11	-13
Alt 1a	Change	-11	-11	-11	-11	-11	-11	-10	-8	-4	-6	-7	-10	-9
Alt 1c	Change	-12	-12	-11	-11	-11	-11	-11	-8	-5	-6	-7	-10	-10
Alt 8a	Change	-11	-11	-11	-11	-11	-10	-10	-8	-4	-5	-7	-10	-9
Alt 10a	Change	-11	-11	-11	-11	-11	-10	-10	-8	-4	-5	-7	-10	-9
Alt 13a	Change	-11	-11	-11	-11	-11	-10	-10	-8	-4	-5	-7	-10	-9
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Condition		8,996	8,995	8,993	8,991	8,989	8,987	8,984	8,987	8,991	8,984	8,977	8,973	8,987
Full Use	Existing Sys	8,987	8,984	8,981	8,978	8,975	8,973	8,968	8,971	8,974	8,967	8,962	8,956	8,973
No Act	Elevation	8,983	8,979	8,976	8,973	8,970	8,966	8,961	8,964	8,968	8,959	8,954	8,948	8,967
Alt 1a	Elevation	8,985	8,983	8,981	8,979	8,977	8,975	8,972	8,973	8,974	8,965	8,959	8,954	8,973
Alt 1c	Elevation	8,985	8,983	8,981	8,978	8,976	8,975	8,971	8,972	8,974	8,965	8,959	8,954	8,973
Alt 8a	Elevation	8,985	8,983	8,981	8,979	8,977	8,975	8,972	8,972	8,974	8,965	8,959	8,954	8,973
Alt 10a	Elevation	8,985	8,983	8,981	8,978	8,977	8,975	8,971	8,972	8,974	8,965	8,959	8,954	8,973
Alt 13a	Elevation	8,985	8,983	8,981	8,979	8,977	8,975	8,972	8,973	8,974	8,965	8,959	8,954	8,973
		Elevation Change from Current Condition												
Full Use	Change	-9	-11	-12	-13	-14	-14	-16	-16	-17	-18	-16	-18	-15
No Act	Change	-14	-15	-17	-18	-19	-21	-22	-23	-23	-25	-24	-25	-21
Alt 1a	Change	-11	-12	-12	-12	-12	-12	-12	-15	-17	-19	-18	-20	-14
Alt 1c	Change	-11	-12	-12	-12	-12	-12	-12	-15	-17	-19	-18	-20	-15
Alt 8a	Change	-11	-12	-12	-12	-12	-12	-12	-15	-17	-19	-18	-19	-14
Alt 10a	Change	-11	-12	-12	-12	-12	-12	-12	-15	-17	-19	-18	-20	-14
Alt 13a	Change	-11	-12	-12	-12	-12	-12	-12	-15	-17	-19	-18	-19	-14
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Condition		9,016	9,015	9,015	9,014	9,014	9,013	9,013	9,006	9,014	9,017	9,016	9,015	9,014
Full Use	Elevation	9,013	9,012	9,011	9,011	9,010	9,010	9,010	9,011	9,014	9,017	9,015	9,011	9,012
No Act	Elevation	9,010	9,009	9,008	9,007	9,006	9,005	9,006	9,009	9,014	9,017	9,015	9,010	9,010
Alt 1a	Elevation	9,010	9,010	9,009	9,009	9,009	9,009	9,009	9,011	9,014	9,017	9,014	9,010	9,011
Alt 1c	Elevation	9,010	9,010	9,009	9,009	9,009	9,009	9,009	9,011	9,014	9,017	9,014	9,010	9,011
Alt 8a	Elevation	9,011	9,011	9,010	9,010	9,010	9,010	9,010	9,011	9,014	9,017	9,014	9,010	9,011
Alt 10a	Elevation	9,011	9,011	9,010	9,010	9,010	9,010	9,010	9,011	9,014	9,017	9,014	9,010	9,011
Alt 13a	Elevation	9,010	9,010	9,010	9,010	9,009	9,009	9,010	9,011	9,014	9,017	9,014	9,010	9,011
		Elevation Change from Current Condition												
Full Use	Change	-3	-3	-4	-4	-4	-4	-3	5	0	0	-1	-4	-2
No Act	Change	-6	-6	-7	-8	-8	-8	-7	3	0	0	-2	-5	-5
Alt 1a	Change	-6	-6	-5	-5	-5	-4	-4	4	0	0	-2	-5	-3
Alt 1c	Change	-6	-6	-6	-5	-5	-5	-4	4	0	0	-2	-5	-3
Alt 8a	Change	-5	-5	-5	-4	-4	-4	-3	5	0	0	-2	-5	-3
Alt 10a	Change	-5	-5	-5	-4	-4	-4	-3	5	0	0	-2	-5	-3
Alt 13a	Change	-6	-5	-5	-5	-4	-4	-3	5	0	0	-2	-5	-3

Table H-1.6. Dillon Reservoir End-of-Month Surface Area (acres)

Surface Area Change and % Change are based on comparisons to Current Condition

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Condition		2,862	2,822	2,778	2,740	2,701	2,668	2,638	2,751	2,977	3,079	3,019	2,932	2,830
Full Use	Surface Area	2,627	2,575	2,518	2,473	2,429	2,390	2,361	2,546	2,871	2,973	2,880	2,728	2,614
No Act	Surface Area	2,519	2,464	2,400	2,346	2,294	2,247	2,214	2,414	2,788	2,891	2,796	2,631	2,500
Alt 1a	Surface Area	2,540	2,509	2,474	2,449	2,423	2,402	2,379	2,523	2,846	2,921	2,804	2,638	2,576
Alt 1c	Surface Area	2,535	2,504	2,469	2,444	2,418	2,397	2,374	2,519	2,844	2,919	2,799	2,633	2,571
Alt 8a	Surface Area	2,547	2,516	2,481	2,456	2,430	2,408	2,386	2,531	2,851	2,925	2,809	2,645	2,582
Alt 10a	Surface Area	2,547	2,515	2,481	2,455	2,429	2,408	2,385	2,530	2,850	2,924	2,809	2,645	2,581
Alt 13a	Surface Area	2,546	2,515	2,480	2,455	2,429	2,408	2,385	2,530	2,851	2,925	2,808	2,644	2,581
Surface Area Change from Current Condition														
Full Use	Change	-235	-246	-260	-267	-273	-277	-276	-205	-106	-106	-139	-204	-216
No Act	Change	-342	-358	-377	-393	-407	-421	-424	-337	-189	-187	-223	-301	-330
Alt 1a	Change	-322	-313	-303	-291	-278	-266	-259	-228	-131	-158	-216	-294	-255
Alt 1c	Change	-327	-318	-308	-296	-283	-271	-264	-232	-134	-160	-220	-299	-259
Alt 8a	Change	-315	-306	-296	-284	-272	-259	-252	-220	-127	-154	-210	-287	-249
Alt 10a	Change	-315	-307	-297	-285	-272	-260	-253	-221	-128	-154	-210	-288	-249
Alt 13a	Change	-316	-307	-297	-284	-272	-259	-252	-221	-127	-154	-211	-289	-249
Percent change in surface area from Current Condition														
Full Use	% Change	-8%	-9%	-9%	-10%	-10%	-10%	-10%	-7%	-4%	-3%	-5%	-7%	-8%
No Act	% Change	-12%	-13%	-14%	-14%	-15%	-16%	-16%	-12%	-6%	-6%	-7%	-10%	-12%
Alt 1a	% Change	-11%	-11%	-11%	-11%	-10%	-10%	-10%	-8%	-4%	-5%	-7%	-10%	-9%
Alt 1c	% Change	-11%	-11%	-11%	-11%	-10%	-10%	-10%	-8%	-4%	-5%	-7%	-10%	-9%
Alt 8a	% Change	-11%	-11%	-11%	-10%	-10%	-10%	-10%	-8%	-4%	-5%	-7%	-10%	-9%
Alt 10a	% Change	-11%	-11%	-11%	-10%	-10%	-10%	-10%	-8%	-4%	-5%	-7%	-10%	-9%
Alt 13a	% Change	-11%	-11%	-11%	-10%	-10%	-10%	-10%	-8%	-4%	-5%	-7%	-10%	-9%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Condition		2,655	2,610	2,565	2,510	2,455	2,412	2,315	2,370	2,455	2,276	2,107	2,015	2,395
Full Use	Surface Area	2,373	2,298	2,225	2,158	2,093	2,038	1,933	1,957	2,000	1,839	1,729	1,620	2,022
No Act	Surface Area	2,280	2,202	2,121	2,044	1,972	1,907	1,800	1,825	1,859	1,700	1,596	1,511	1,901
Alt 1a	Surface Area	2,322	2,269	2,217	2,168	2,121	2,087	1,987	1,981	1,987	1,798	1,676	1,584	2,016
Alt 1c	Surface Area	2,316	2,263	2,211	2,162	2,115	2,082	1,982	1,975	1,982	1,795	1,673	1,583	2,012
Alt 8a	Surface Area	2,322	2,269	2,216	2,167	2,120	2,086	1,987	1,980	1,987	1,798	1,677	1,585	2,016
Alt 10a	Surface Area	2,320	2,267	2,214	2,165	2,118	2,084	1,985	1,978	1,985	1,796	1,675	1,584	2,014
Alt 13a	Surface Area	2,325	2,271	2,219	2,170	2,122	2,089	1,989	1,982	1,988	1,800	1,677	1,585	2,018
Surface Area Change from Current Condition														
Full Use	Change	-282	-312	-339	-352	-362	-374	-382	-413	-455	-437	-378	-395	-373
No Act	Change	-375	-408	-444	-466	-484	-505	-515	-545	-596	-575	-511	-504	-494
Alt 1a	Change	-333	-341	-348	-342	-335	-324	-327	-389	-468	-478	-431	-431	-379
Alt 1c	Change	-339	-347	-354	-348	-341	-330	-333	-394	-473	-480	-434	-432	-384
Alt 8a	Change	-333	-341	-348	-343	-336	-326	-328	-390	-468	-478	-430	-430	-379
Alt 10a	Change	-335	-343	-351	-345	-337	-327	-330	-392	-470	-480	-432	-431	-381
Alt 13a	Change	-330	-339	-345	-340	-333	-323	-325	-387	-467	-476	-430	-430	-377
Percent change in surface area from Current Condition														
Full Use	% Change	-11%	-12%	-13%	-14%	-15%	-16%	-16%	-17%	-19%	-19%	-18%	-20%	-16%
No Act	% Change	-14%	-16%	-17%	-19%	-20%	-21%	-22%	-23%	-24%	-25%	-24%	-25%	-21%
Alt 1a	% Change	-13%	-13%	-14%	-14%	-14%	-13%	-14%	-16%	-19%	-21%	-20%	-21%	-16%
Alt 1c	% Change	-13%	-13%	-14%	-14%	-14%	-14%	-14%	-17%	-19%	-21%	-21%	-21%	-16%
Alt 8a	% Change	-13%	-13%	-14%	-14%	-14%	-13%	-14%	-16%	-19%	-21%	-20%	-21%	-16%
Alt 10a	% Change	-13%	-13%	-14%	-14%	-14%	-14%	-14%	-17%	-19%	-21%	-20%	-21%	-16%
Alt 13a	% Change	-12%	-13%	-13%	-14%	-14%	-13%	-14%	-16%	-19%	-21%	-20%	-21%	-16%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Condition		3,223	3,203	3,181	3,162	3,139	3,131	3,120	2,910	3,155	3,255	3,231	3,174	3,157
Full Use	Surface Area	3,115	3,092	3,057	3,038	3,017	3,005	3,014	3,062	3,155	3,255	3,186	3,049	3,087
No Act	Surface Area	3,008	2,983	2,938	2,909	2,880	2,863	2,882	2,989	3,155	3,255	3,172	3,019	3,004
Alt 1a	Surface Area	3,016	3,014	3,000	2,993	2,984	2,985	2,996	3,042	3,146	3,251	3,162	3,010	3,050
Alt 1c	Surface Area	3,007	3,005	2,992	2,987	2,978	2,979	2,990	3,037	3,145	3,250	3,157	3,004	3,044
Alt 8a	Surface Area	3,037	3,034	3,020	3,013	3,004	3,005	3,016	3,064	3,152	3,250	3,160	3,009	3,064
Alt 10a	Surface Area	3,038	3,035	3,020	3,014	3,004	3,005	3,017	3,063	3,150	3,250	3,160	3,009	3,064
Alt 13a	Surface Area	3,028	3,026	3,011	3,005	2,995	2,997	3,008	3,055	3,150	3,250	3,161	3,009	3,058
Surface Area Change from Current Condition														
Full Use	Change	-108	-111	-124	-123	-122	-127	-107	152	0	0	-45	-126	-70
No Act	Change	-216	-220	-243	-253	-260	-268	-238	80	0	-1	-59	-156	-153
Alt 1a	Change	-207	-190	-181	-169	-155	-146	-125	132	-9	-5	-70	-164	-107
Alt 1c	Change	-216	-198	-189	-175	-162	-153	-131	127	-10	-5	-74	-171	-113
Alt 8a	Change	-186	-169	-161	-149	-136	-127	-105	154	-3	-5	-71	-165	-93
Alt 10a	Change	-186	-168	-161	-148	-135	-126	-104	153	-5	-6	-71	-165	-93
Alt 13a	Change	-195	-177	-170	-157	-144	-135	-113	145	-5	-6	-71	-166	-99
Percent change in surface area from Current Condition														
Full Use	% Change	-3%	-3%	-4%	-4%	-4%	-4%	-3%	5%	0%	0%	-1%	-4%	-2%
No Act	% Change	-7%	-7%	-8%	-8%	-8%	-9%	-8%	3%	0%	0%	-2%	-5%	-5%
Alt 1a	% Change	-6%	-6%	-6%	-5%	-5%	-5%	-4%	5%	0%	0%	-2%	-5%	-3%
Alt 1c	% Change	-7%	-6%	-6%	-6%	-5%	-5%	-4%	4%	0%	0%	-2%	-5%	-4%
Alt 8a	% Change	-6%	-5%	-5%	-5%	-4%	-4%	-3%	5%	0%	0%	-2%	-5%	-3%
Alt 10a	% Change	-6%	-5%	-5%	-5%	-4%	-4%	-3%	5%	0%	0%	-2%	-5%	-3%
Alt 13a	% Change	-6%	-6%	-5%	-5%	-5%	-4%	-4%	5%	0%	0%	-2%	-5%	-3%

Table H-1.7. Wolford Mountain Reservoir End-of-Month Storage Content (AF)

Content Change and % Change are based on comparisons to Current Condition

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Condition		53,892	52,754	52,528	51,609	51,246	51,334	54,541	62,651	63,418	62,386	58,384	54,812	55,796
Full Use	Content	50,457	49,822	49,218	47,470	46,739	46,153	49,564	58,887	60,067	58,342	55,468	51,842	52,002
No Act	Content	50,208	49,573	48,969	47,305	46,598	46,018	49,429	58,798	59,971	58,241	55,311	51,491	51,826
Alt 1a	Content	50,237	49,601	48,997	47,333	46,629	46,053	49,461	58,814	59,986	58,270	55,362	51,572	51,859
Alt 1c	Content	50,232	49,597	48,993	47,329	46,629	46,053	49,461	58,814	59,986	58,271	55,362	51,568	51,858
Alt 8a	Content	50,251	49,615	49,011	47,350	46,628	46,052	49,460	58,814	59,986	58,270	55,361	51,586	51,865
Alt 10a	Content	50,254	49,618	49,014	47,353	46,631	46,055	49,463	58,814	59,986	58,269	55,361	51,586	51,867
Alt 13a	Content	50,256	49,621	49,017	47,355	46,634	46,058	49,466	58,822	59,994	58,272	55,365	51,590	51,871
Content Change from Current Condition														
Full Use	Change	-3,435	-2,932	-3,310	-4,139	-4,507	-5,181	-4,977	-3,764	-3,351	-4,044	-2,916	-2,969	-3,794
No Act	Change	-3,684	-3,181	-3,559	-4,304	-4,648	-5,316	-5,111	-3,853	-3,447	-4,145	-3,072	-3,321	-3,970
Alt 1a	Change	-3,655	-3,153	-3,531	-4,276	-4,618	-5,281	-5,080	-3,838	-3,432	-4,116	-3,022	-3,240	-3,937
Alt 1c	Change	-3,660	-3,157	-3,535	-4,280	-4,617	-5,281	-5,080	-3,837	-3,432	-4,115	-3,021	-3,244	-3,938
Alt 8a	Change	-3,641	-3,139	-3,517	-4,259	-4,618	-5,282	-5,081	-3,837	-3,432	-4,116	-3,023	-3,226	-3,931
Alt 10a	Change	-3,639	-3,136	-3,514	-4,256	-4,615	-5,279	-5,078	-3,837	-3,432	-4,117	-3,022	-3,226	-3,929
Alt 13a	Change	-3,636	-3,133	-3,511	-4,254	-4,613	-5,276	-5,075	-3,829	-3,424	-4,114	-3,019	-3,222	-3,925
Percent change in content from Current Condition														
Full Use	% Change	-6%	-6%	-6%	-8%	-9%	-10%	-9%	-6%	-5%	-6%	-5%	-5%	-7%
No Act	% Change	-7%	-6%	-7%	-8%	-9%	-10%	-9%	-6%	-5%	-7%	-5%	-6%	-7%
Alt 1a	% Change	-7%	-6%	-7%	-8%	-9%	-10%	-9%	-6%	-5%	-7%	-5%	-6%	-7%
Alt 1c	% Change	-7%	-6%	-7%	-8%	-9%	-10%	-9%	-6%	-5%	-7%	-5%	-6%	-7%
Alt 8a	% Change	-7%	-6%	-7%	-8%	-9%	-10%	-9%	-6%	-5%	-7%	-5%	-6%	-7%
Alt 10a	% Change	-7%	-6%	-7%	-8%	-9%	-10%	-9%	-6%	-5%	-7%	-5%	-6%	-7%
Alt 13a	% Change	-7%	-6%	-7%	-8%	-9%	-10%	-9%	-6%	-5%	-7%	-5%	-6%	-7%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Condition		50,865	50,751	50,636	49,739	49,648	49,530	50,145	58,377	59,017	57,943	49,593	37,262	51,126
Full Use	Content	50,064	49,423	48,816	47,635	47,270	46,731	46,822	54,754	55,213	52,977	46,632	34,310	48,387
No Act	Content	50,016	49,375	48,768	47,634	47,269	46,730	46,821	54,753	55,212	52,976	46,631	34,261	48,370
Alt 1a	Content	50,012	49,370	48,763	47,628	47,263	46,725	46,815	54,747	55,207	52,970	46,625	34,256	48,365
Alt 1c	Content	50,012	49,370	48,763	47,628	47,263	46,725	46,815	54,747	55,207	52,970	46,625	34,256	48,365
Alt 8a	Content	50,011	49,370	48,763	47,628	47,263	46,724	46,815	54,747	55,206	52,970	46,625	34,257	48,365
Alt 10a	Content	50,011	49,370	48,763	47,628	47,263	46,724	46,815	54,747	55,206	52,970	46,625	34,257	48,365
Alt 13a	Content	50,012	49,371	48,764	47,628	47,263	46,724	46,815	54,747	55,206	52,970	46,625	34,257	48,365
Content Change from Current Condition														
Full Use	Change	-801	-1,328	-1,820	-2,104	-2,378	-2,799	-3,323	-3,623	-3,804	-4,967	-2,962	-2,953	-2,738
No Act	Change	-849	-1,376	-1,868	-2,105	-2,379	-2,800	-3,325	-3,625	-3,805	-4,968	-2,963	-3,001	-2,755
Alt 1a	Change	-853	-1,381	-1,873	-2,110	-2,385	-2,806	-3,330	-3,630	-3,811	-4,973	-2,968	-3,006	-2,760
Alt 1c	Change	-853	-1,381	-1,873	-2,110	-2,385	-2,806	-3,330	-3,630	-3,811	-4,973	-2,968	-3,007	-2,760
Alt 8a	Change	-854	-1,381	-1,873	-2,111	-2,385	-2,806	-3,330	-3,630	-3,811	-4,973	-2,968	-3,006	-2,761
Alt 10a	Change	-854	-1,381	-1,873	-2,111	-2,385	-2,806	-3,330	-3,631	-3,811	-4,973	-2,968	-3,006	-2,761
Alt 13a	Change	-853	-1,380	-1,872	-2,111	-2,385	-2,806	-3,330	-3,631	-3,812	-4,974	-2,968	-3,006	-2,761
Percent change in content from Current Condition														
Full Use	% Change	-2%	-3%	-4%	-4%	-5%	-6%	-7%	-6%	-6%	-9%	-6%	-8%	-5%
No Act	% Change	-2%	-3%	-4%	-4%	-5%	-6%	-7%	-6%	-6%	-9%	-6%	-8%	-5%
Alt 1a	% Change	-2%	-3%	-4%	-4%	-5%	-6%	-7%	-6%	-6%	-9%	-6%	-8%	-5%
Alt 1c	% Change	-2%	-3%	-4%	-4%	-5%	-6%	-7%	-6%	-6%	-9%	-6%	-8%	-5%
Alt 8a	% Change	-2%	-3%	-4%	-4%	-5%	-6%	-7%	-6%	-6%	-9%	-6%	-8%	-5%
Alt 10a	% Change	-2%	-3%	-4%	-4%	-5%	-6%	-7%	-6%	-6%	-9%	-6%	-8%	-5%
Alt 13a	% Change	-2%	-3%	-4%	-4%	-5%	-6%	-7%	-6%	-6%	-9%	-6%	-8%	-5%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Condition		59,352	56,492	56,365	56,096	56,049	56,480	62,617	65,493	65,700	63,869	63,130	61,438	60,257
Full Use	Content	55,759	55,112	54,466	53,859	53,474	51,292	61,368	65,014	64,906	62,427	61,427	59,083	58,182
No Act	Content	55,751	55,101	54,455	53,846	53,440	51,323	61,398	65,017	64,910	62,422	61,423	59,087	58,181
Alt 1a	Content	55,758	55,109	54,463	53,860	53,436	51,327	61,402	65,012	64,904	62,420	61,385	59,085	58,180
Alt 1c	Content	55,756	55,106	54,461	53,855	53,440	51,325	61,400	65,012	64,904	62,417	61,382	59,081	58,178
Alt 8a	Content	55,757	55,107	54,462	53,858	53,437	51,319	61,395	65,011	64,904	62,419	61,385	59,086	58,178
Alt 10a	Content	55,757	55,107	54,462	53,858	53,437	51,320	61,395	65,011	64,904	62,419	61,385	59,086	58,178
Alt 13a	Content	55,758	55,108	54,463	53,859	53,438	51,320	61,396	65,011	64,904	62,419	61,385	59,086	58,179
Content Change from Current Condition														
Full Use	Change	-3,593	-1,380	-1,899	-2,237	-2,575	-5,188	-1,249	-480	-794	-1,442	-1,703	-2,355	-2,075
No Act	Change	-3,601	-1,391	-1,909	-2,250	-2,609	-5,158	-1,219	-476	-790	-1,447	-1,707	-2,351	-2,076
Alt 1a	Change	-3,594	-1,383	-1,902	-2,237	-2,613	-5,154	-1,215	-482	-796	-1,449	-1,745	-2,352	-2,077
Alt 1c	Change	-3,596	-1,386	-1,903	-2,241	-2,609	-5,155	-1,217	-482	-796	-1,452	-1,748	-2,356	-2,078
Alt 8a	Change	-3,595	-1,385	-1,903	-2,238	-2,612	-5,161	-1,222	-482	-796	-1,450	-1,745	-2,352	-2,078
Alt 10a	Change	-3,595	-1,385	-1,903	-2,238	-2,612	-5,161	-1,222	-482	-796	-1,450	-1,745	-2,352	-2,078
Alt 13a	Change	-3,594	-1,384	-1,902	-2,237	-2,610	-5,160	-1,221	-482	-796	-1,450	-1,745	-2,352	-2,078
Percent change in content from Current Condition														
Full Use	% Change	-6%	-2%	-3%	-4%	-5%	-9%	-2%	-1%	-1%	-2%	-3%	-4%	-3%
No Act	% Change	-6%	-2%	-3%	-4%	-5%	-9%	-2%	-1%	-1%	-2%	-3%	-4%	-3%
Alt 1a	% Change	-6%	-2%	-3%	-4%	-5%	-9%	-2%	-1%	-1%	-2%	-3%	-4%	-3%
Alt 1c	% Change	-6%	-2%	-3%	-4%	-5%	-9%	-2%	-1%	-1%	-2%	-3%	-4%	-3%
Alt 8a	% Change	-6%	-2%	-3%	-4%	-5%	-9%	-2%	-1%	-1%	-2%	-3%	-4%	-3%
Alt 10a	% Change	-6%	-2%	-3%	-4%	-5%	-9%	-2%	-1%	-1%	-2%	-3%	-4%	-3%
Alt 13a	% Change	-6%	-2%	-3%	-4%	-5%	-9%	-2%	-1%	-1%	-2%	-3%	-4%	-3%

Table H-1.8. Wolford Mountain Reservoir End-of-Month Elevations (feet)

Elevation Change based on comparisons to Current Condition

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Condition		7,480	7,479	7,479	7,478	7,478	7,478	7,480	7,487	7,487	7,486	7,484	7,481	7,481
Full Use	Elevation	7,477	7,477	7,476	7,474	7,473	7,473	7,476	7,484	7,485	7,484	7,481	7,478	7,478
No Act	Elevation	7,477	7,476	7,476	7,474	7,473	7,473	7,475	7,484	7,485	7,483	7,481	7,478	7,478
Alt 1a	Elevation	7,477	7,476	7,476	7,474	7,473	7,473	7,475	7,484	7,485	7,484	7,481	7,478	7,478
Alt 1c	Elevation	7,477	7,476	7,476	7,474	7,473	7,473	7,475	7,484	7,485	7,484	7,481	7,478	7,478
Alt 8a	Elevation	7,477	7,476	7,476	7,474	7,473	7,473	7,475	7,484	7,485	7,484	7,481	7,478	7,478
Alt 10a	Elevation	7,477	7,476	7,476	7,474	7,473	7,473	7,475	7,484	7,485	7,484	7,481	7,478	7,478
Alt 13a	Elevation	7,477	7,476	7,476	7,474	7,473	7,473	7,475	7,484	7,485	7,484	7,481	7,478	7,478
Elevation Change from Current Condition														
Full Use	Change	-3	-3	-3	-4	-4	-5	-5	-3	-2	-3	-2	-2	-3
No Act	Change	-3	-3	-3	-4	-4	-5	-5	-3	-2	-3	-2	-3	-3
Alt 1a	Change	-3	-3	-3	-4	-4	-5	-5	-3	-2	-3	-2	-3	-3
Alt 1c	Change	-3	-3	-3	-4	-4	-5	-5	-3	-2	-3	-2	-3	-3
Alt 8a	Change	-3	-3	-3	-4	-4	-5	-5	-3	-2	-3	-2	-3	-3
Alt 10a	Change	-3	-3	-3	-4	-4	-5	-5	-3	-2	-3	-2	-3	-3
Alt 13a	Change	-3	-3	-3	-4	-4	-5	-5	-3	-2	-3	-2	-3	-3
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Condition		7,478	7,477	7,477	7,476	7,476	7,476	7,477	7,484	7,484	7,483	7,477	7,465	7,478
Full Use	Existing Sys	7,477	7,476	7,476	7,474	7,474	7,474	7,474	7,481	7,481	7,480	7,475	7,462	7,475
No Act	Elevation	7,477	7,476	7,476	7,474	7,474	7,474	7,474	7,481	7,481	7,480	7,475	7,462	7,475
Alt 1a	Elevation	7,477	7,476	7,476	7,474	7,474	7,474	7,474	7,481	7,481	7,480	7,475	7,462	7,475
Alt 1c	Elevation	7,477	7,476	7,476	7,474	7,474	7,474	7,474	7,481	7,481	7,480	7,475	7,462	7,475
Alt 8a	Elevation	7,477	7,476	7,476	7,474	7,474	7,474	7,474	7,481	7,481	7,480	7,475	7,462	7,475
Alt 10a	Elevation	7,477	7,476	7,476	7,474	7,474	7,474	7,474	7,481	7,481	7,480	7,475	7,462	7,475
Alt 13a	Elevation	7,477	7,476	7,476	7,474	7,474	7,474	7,474	7,481	7,481	7,480	7,475	7,462	7,475
Elevation Change from Current Condition														
Full Use	Change	-1	-1	-2	-2	-2	-3	-3	-3	-3	-4	-2	-3	-2
No Act	Change	-1	-1	-2	-2	-2	-3	-3	-3	-3	-4	-2	-3	-2
Alt 1a	Change	-1	-1	-2	-2	-2	-3	-3	-3	-3	-4	-2	-3	-2
Alt 1c	Change	-1	-1	-2	-2	-2	-3	-3	-3	-3	-4	-2	-3	-2
Alt 8a	Change	-1	-1	-2	-2	-2	-3	-3	-3	-3	-4	-2	-3	-2
Alt 10a	Change	-1	-1	-2	-2	-2	-3	-3	-3	-3	-4	-2	-3	-2
Alt 13a	Change	-1	-1	-2	-2	-2	-3	-3	-3	-3	-4	-2	-3	-2
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Condition		7,484	7,482	7,482	7,482	7,482	7,482	7,487	7,489	7,489	7,488	7,487	7,486	7,485
Full Use	Elevation	7,482	7,481	7,481	7,480	7,480	7,478	7,486	7,488	7,488	7,487	7,486	7,484	7,483
No Act	Elevation	7,482	7,481	7,481	7,480	7,480	7,478	7,486	7,488	7,488	7,487	7,486	7,484	7,483
Alt 1a	Elevation	7,482	7,481	7,481	7,480	7,480	7,478	7,486	7,488	7,488	7,487	7,486	7,484	7,483
Alt 1c	Elevation	7,482	7,481	7,481	7,480	7,480	7,478	7,486	7,488	7,488	7,487	7,486	7,484	7,483
Alt 8a	Elevation	7,482	7,481	7,481	7,480	7,480	7,478	7,486	7,488	7,488	7,487	7,486	7,484	7,483
Alt 10a	Elevation	7,482	7,481	7,481	7,480	7,480	7,478	7,486	7,488	7,488	7,487	7,486	7,484	7,483
Alt 13a	Elevation	7,482	7,481	7,481	7,480	7,480	7,478	7,486	7,488	7,488	7,487	7,486	7,484	7,483
Elevation Change from Current Condition														
Full Use	Change	-3	-1	-1	-2	-2	-4	-1	0	-1	-1	-1	-2	-2
No Act	Change	-3	-1	-1	-2	-2	-4	-1	0	-1	-1	-1	-2	-2
Alt 1a	Change	-3	-1	-1	-2	-2	-4	-1	0	-1	-1	-1	-2	-2
Alt 1c	Change	-3	-1	-1	-2	-2	-4	-1	0	-1	-1	-1	-2	-2
Alt 8a	Change	-3	-1	-1	-2	-2	-4	-1	0	-1	-1	-1	-2	-2
Alt 10a	Change	-3	-1	-1	-2	-2	-4	-1	0	-1	-1	-1	-2	-2
Alt 13a	Change	-3	-1	-1	-2	-2	-4	-1	0	-1	-1	-1	-2	-2

Table H-1.9. Wolford Mountain Reservoir End-of-Month Surface Area (acres)

Surface Area Change and % Change are based on comparisons to Current Condition

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Condition		1,331	1,311	1,307	1,289	1,282	1,283	1,340	1,491	1,505	1,487	1,415	1,348	1,366
Full Use	Surface Area	1,267	1,256	1,245	1,212	1,199	1,188	1,250	1,420	1,445	1,414	1,361	1,292	1,296
No Act	Surface Area	1,263	1,251	1,240	1,209	1,197	1,185	1,247	1,418	1,443	1,412	1,358	1,286	1,292
Alt 1a	Surface Area	1,263	1,252	1,241	1,210	1,197	1,186	1,248	1,419	1,443	1,413	1,359	1,287	1,293
Alt 1c	Surface Area	1,263	1,252	1,241	1,210	1,197	1,186	1,248	1,419	1,443	1,413	1,359	1,287	1,293
Alt 8a	Surface Area	1,264	1,252	1,241	1,210	1,197	1,186	1,248	1,419	1,443	1,413	1,359	1,288	1,293
Alt 10a	Surface Area	1,264	1,252	1,241	1,210	1,197	1,186	1,248	1,419	1,443	1,413	1,359	1,288	1,293
Alt 13a	Surface Area	1,264	1,252	1,241	1,210	1,197	1,186	1,248	1,419	1,443	1,413	1,359	1,288	1,293
Surface Area Change from Current Condition														
Full Use	Change	-63	-55	-62	-77	-82	-95	-90	-70	-60	-73	-54	-56	-70
No Act	Change	-68	-59	-66	-80	-85	-98	-93	-72	-62	-75	-58	-62	-73
Alt 1a	Change	-67	-59	-66	-80	-84	-97	-92	-72	-62	-74	-57	-61	-72
Alt 1c	Change	-67	-59	-66	-80	-84	-97	-92	-72	-62	-74	-56	-61	-72
Alt 8a	Change	-67	-58	-65	-79	-84	-97	-92	-72	-62	-74	-57	-60	-72
Alt 10a	Change	-67	-58	-65	-79	-84	-97	-92	-72	-62	-74	-57	-60	-72
Alt 13a	Change	-67	-58	-65	-79	-84	-97	-92	-72	-62	-74	-56	-60	-72
Percent change in surface area from Current Condition														
Full Use	% Change	-5%	-4%	-5%	-6%	-6%	-7%	-7%	-5%	-4%	-5%	-4%	-4%	-5%
No Act	% Change	-5%	-5%	-5%	-6%	-7%	-8%	-7%	-5%	-4%	-5%	-4%	-5%	-5%
Alt 1a	% Change	-5%	-4%	-5%	-6%	-7%	-8%	-7%	-5%	-4%	-5%	-4%	-4%	-5%
Alt 1c	% Change	-5%	-4%	-5%	-6%	-7%	-8%	-7%	-5%	-4%	-5%	-4%	-4%	-5%
Alt 8a	% Change	-5%	-4%	-5%	-6%	-7%	-8%	-7%	-5%	-4%	-5%	-4%	-4%	-5%
Alt 10a	% Change	-5%	-4%	-5%	-6%	-7%	-8%	-7%	-5%	-4%	-5%	-4%	-4%	-5%
Alt 13a	% Change	-5%	-4%	-5%	-6%	-7%	-8%	-7%	-5%	-4%	-5%	-4%	-4%	-5%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Current Condition		1,271	1,268	1,266	1,253	1,251	1,249	1,258	1,414	1,427	1,408	1,253	1,003	1,277
Full Use	Surface Area	1,258	1,247	1,237	1,218	1,212	1,202	1,202	1,348	1,357	1,315	1,194	953	1,229
No Act	Surface Area	1,257	1,246	1,236	1,218	1,212	1,202	1,202	1,348	1,357	1,315	1,194	952	1,228
Alt 1a	Surface Area	1,257	1,246	1,236	1,218	1,212	1,202	1,202	1,348	1,357	1,315	1,194	952	1,228
Alt 1c	Surface Area	1,257	1,246	1,236	1,218	1,212	1,202	1,202	1,348	1,357	1,315	1,194	952	1,228
Alt 8a	Surface Area	1,257	1,246	1,236	1,218	1,212	1,202	1,202	1,348	1,357	1,315	1,194	952	1,228
Alt 10a	Surface Area	1,257	1,246	1,236	1,218	1,212	1,202	1,202	1,348	1,357	1,315	1,194	952	1,228
Alt 13a	Surface Area	1,257	1,246	1,236	1,218	1,212	1,202	1,202	1,348	1,357	1,315	1,194	952	1,228
Surface Area Change from Current Condition														
Full Use	Change	-13	-22	-30	-34	-39	-47	-56	-66	-70	-92	-59	-51	-48
No Act	Change	-14	-22	-30	-34	-39	-47	-56	-66	-70	-92	-59	-51	-49
Alt 1a	Change	-14	-22	-30	-35	-39	-47	-56	-66	-70	-92	-59	-51	-49
Alt 1c	Change	-14	-22	-30	-35	-39	-47	-56	-66	-70	-92	-59	-51	-49
Alt 8a	Change	-14	-22	-30	-35	-39	-47	-56	-66	-70	-92	-59	-51	-49
Alt 10a	Change	-14	-22	-30	-35	-39	-47	-56	-66	-70	-92	-59	-51	-49
Alt 13a	Change	-14	-22	-30	-35	-39	-47	-56	-66	-70	-92	-59	-51	-49
Percent change in surface area from Current Condition														
Full Use	% Change	-1%	-2%	-2%	-3%	-3%	-4%	-4%	-5%	-5%	-7%	-5%	-5%	-4%
No Act	% Change	-1%	-2%	-2%	-3%	-3%	-4%	-4%	-5%	-5%	-7%	-5%	-5%	-4%
Alt 1a	% Change	-1%	-2%	-2%	-3%	-3%	-4%	-4%	-5%	-5%	-7%	-5%	-5%	-4%
Alt 1c	% Change	-1%	-2%	-2%	-3%	-3%	-4%	-4%	-5%	-5%	-7%	-5%	-5%	-4%
Alt 8a	% Change	-1%	-2%	-2%	-3%	-3%	-4%	-4%	-5%	-5%	-7%	-5%	-5%	-4%
Alt 10a	% Change	-1%	-2%	-2%	-3%	-3%	-4%	-4%	-5%	-5%	-7%	-5%	-5%	-4%
Alt 13a	% Change	-1%	-2%	-2%	-3%	-3%	-4%	-4%	-5%	-5%	-7%	-5%	-5%	-4%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Current Condition		1,433	1,383	1,381	1,376	1,375	1,382	1,491	1,541	1,545	1,513	1,500	1,470	1,449
Full Use	Surface Area	1,370	1,358	1,346	1,335	1,328	1,281	1,469	1,533	1,531	1,487	1,470	1,429	1,411
No Act	Surface Area	1,369	1,358	1,346	1,335	1,327	1,282	1,469	1,533	1,531	1,487	1,470	1,429	1,411
Alt 1a	Surface Area	1,370	1,358	1,346	1,335	1,327	1,282	1,469	1,533	1,531	1,487	1,469	1,429	1,411
Alt 1c	Surface Area	1,370	1,358	1,346	1,335	1,327	1,282	1,469	1,533	1,531	1,487	1,469	1,429	1,411
Alt 8a	Surface Area	1,370	1,358	1,346	1,335	1,327	1,282	1,469	1,533	1,531	1,487	1,469	1,429	1,411
Alt 10a	Surface Area	1,370	1,358	1,346	1,335	1,327	1,282	1,469	1,533	1,531	1,487	1,469	1,429	1,411
Alt 13a	Surface Area	1,370	1,358	1,346	1,335	1,327	1,282	1,469	1,533	1,531	1,487	1,469	1,429	1,411
Surface Area Change from Current Condition														
Full Use	Change	-64	-25	-35	-41	-47	-101	-22	-8	-14	-25	-30	-41	-38
No Act	Change	-64	-25	-35	-42	-48	-100	-21	-8	-14	-25	-30	-41	-38
Alt 1a	Change	-64	-25	-35	-41	-48	-100	-21	-8	-14	-25	-31	-41	-38
Alt 1c	Change	-64	-25	-35	-41	-48	-100	-21	-8	-14	-26	-31	-41	-38
Alt 8a	Change	-64	-25	-35	-41	-48	-100	-21	-8	-14	-25	-31	-41	-38
Alt 10a	Change	-64	-25	-35	-41	-48	-100	-21	-8	-14	-25	-31	-41	-38
Alt 13a	Change	-64	-25	-35	-41	-48	-100	-21	-8	-14	-25	-31	-41	-38
Percent change in surface area from Current Condition														
Full Use	% Change	-4%	-2%	-3%	-3%	-3%	-7%	-1%	-1%	-1%	-2%	-2%	-3%	-3%
No Act	% Change	-4%	-2%	-3%	-3%	-3%	-7%	-1%	-1%	-1%	-2%	-2%	-3%	-3%
Alt 1a	% Change	-4%	-2%	-3%	-3%	-4%	-7%	-1%	-1%	-1%	-2%	-2%	-3%	-3%
Alt 1c	% Change	-4%	-2%	-3%	-3%	-3%	-7%	-1%	-1%	-1%	-2%	-2%	-3%	-3%
Alt 8a	% Change	-4%	-2%	-3%	-3%	-4%	-7%	-1%	-1%	-1%	-2%	-2%	-3%	-3%
Alt 10a	% Change	-4%	-2%	-3%	-3%	-4%	-7%	-1%	-1%	-1%	-2%	-2%	-3%	-3%
Alt 13a	% Change	-4%	-2%	-3%	-3%	-4%	-7%	-1%	-1%	-1%	-2%	-2%	-3%	-3%

Appendix H-1
Comparison of Current Conditions, Full Use of the Existing System, and EIS Alternatives with RFFAs

Table H-1.10. Gross Reservoir End-of-Month Storage Content (AF)

Content Change and % Change are based on comparisons to Current Condition

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Condition		23,756	24,036	24,510	25,413	26,147	22,640	21,523	28,121	39,711	35,359	29,384	25,183	27,149
Full Use	Content	28,319	27,910	27,968	28,876	29,608	23,765	22,208	28,440	39,381	35,392	31,815	29,989	29,473
No Act	Content	27,184	26,650	26,645	27,534	28,267	22,016	20,452	26,897	38,458	34,460	30,876	28,999	28,203
Alt 1a	Content	93,715	90,124	85,863	81,393	77,409	73,174	69,472	81,240	102,057	102,457	99,506	97,422	87,819
Alt 1c	Content	63,923	60,356	56,190	51,966	48,200	44,266	41,205	52,464	72,246	72,543	69,699	67,617	58,390
Alt 8a	Content	75,696	72,258	68,117	63,805	59,983	55,962	52,430	64,199	84,721	84,543	81,289	79,236	70,187
Alt 10a	Content	75,738	72,303	68,173	63,863	60,042	56,012	52,474	64,237	84,756	84,554	81,305	79,271	70,227
Alt 13a	Content	83,104	79,608	75,398	70,935	66,960	62,771	59,149	70,857	91,622	91,775	88,728	86,688	77,300
Content Change from Current Condition														
Full Use	Change	4,564	3,874	3,458	3,463	3,461	1,125	685	319	-331	33	2,430	4,807	2,324
No Act	Change	3,428	2,614	2,135	2,121	2,119	-624	-1,071	-1,224	-1,253	-899	1,492	3,816	1,055
Alt 1a	Change	69,960	66,088	61,353	55,980	51,262	50,534	47,949	53,119	62,345	67,097	70,121	72,239	60,671
Alt 1c	Change	40,168	36,320	31,680	26,553	22,053	21,626	19,682	24,343	32,534	37,184	40,315	42,434	31,241
Alt 8a	Change	51,940	48,222	43,608	38,393	33,836	33,322	30,907	36,078	45,010	49,184	51,905	54,053	43,038
Alt 10a	Change	51,982	48,267	43,664	38,450	33,895	33,373	30,951	36,116	45,044	49,195	51,920	54,089	43,079
Alt 13a	Change	59,349	55,572	50,888	45,522	40,813	40,132	37,626	42,736	51,911	56,415	59,344	61,505	50,151
Percent change in content from Current Condition														
Full Use	% Change	19%	16%	14%	14%	13%	5%	3%	1%	-1%	0%	8%	19%	9%
No Act	% Change	14%	11%	9%	8%	8%	-3%	-5%	-4%	-3%	-3%	5%	15%	4%
Alt 1a	% Change	294%	275%	250%	220%	196%	223%	223%	189%	157%	190%	239%	287%	223%
Alt 1c	% Change	169%	151%	129%	104%	84%	96%	91%	87%	82%	105%	137%	169%	115%
Alt 8a	% Change	219%	201%	178%	151%	129%	147%	144%	128%	113%	139%	177%	215%	159%
Alt 10a	% Change	219%	201%	178%	151%	130%	147%	144%	128%	113%	139%	177%	215%	159%
Alt 13a	% Change	250%	231%	208%	179%	156%	177%	175%	152%	131%	160%	202%	244%	185%

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Current Condition		21,109	21,262	21,537	22,272	22,879	19,024	19,383	22,148	32,884	26,798	22,197	19,803	22,608
Full Use	Content	28,136	27,518	27,353	28,071	28,673	22,499	22,077	24,711	35,574	30,745	27,077	24,955	27,283
No Act	Content	27,068	26,275	26,009	26,727	27,329	20,483	19,757	22,051	33,166	28,522	25,048	22,810	25,437
Alt 1a	Content	97,536	93,901	89,583	85,062	81,128	76,922	73,489	77,317	90,879	88,446	85,065	81,688	85,085
Alt 1c	Content	66,457	62,821	58,495	54,040	50,137	45,959	42,586	46,326	59,622	57,715	54,624	51,285	54,172
Alt 8a	Content	77,661	74,053	69,730	65,208	61,275	57,089	53,660	57,476	71,132	69,111	66,204	63,560	65,513
Alt 10a	Content	77,685	74,076	69,753	65,232	61,298	57,108	53,683	57,499	71,157	69,134	66,223	63,566	65,535
Alt 13a	Content	85,645	82,026	77,703	73,182	69,249	65,059	61,632	65,445	79,084	77,014	74,055	71,327	73,452
Content Change from Current Condition														
Full Use	Change	7,027	6,257	5,816	5,799	5,794	3,475	2,694	2,563	2,690	3,946	4,881	5,152	4,675
No Act	Change	5,959	5,013	4,472	4,454	4,450	1,459	374	-97	282	1,723	2,851	3,007	2,829
Alt 1a	Change	76,427	72,639	68,046	62,790	58,250	57,898	54,106	55,169	57,994	61,648	62,868	61,885	62,477
Alt 1c	Change	45,348	41,559	36,958	31,768	27,258	26,935	23,203	24,178	26,738	30,916	32,427	31,482	31,564
Alt 8a	Change	56,553	52,791	48,193	42,936	38,396	38,065	34,277	35,328	38,247	42,313	44,008	43,757	42,905
Alt 10a	Change	56,576	52,814	48,216	42,960	38,420	38,084	34,300	35,351	38,273	42,336	44,027	43,763	42,927
Alt 13a	Change	64,536	60,764	56,166	50,910	46,370	46,035	42,249	43,297	46,200	50,215	51,859	51,523	50,844
Percent change in content from Current Condition														
Full Use	% Change	33%	29%	27%	26%	25%	18%	14%	12%	8%	15%	22%	26%	21%
No Act	% Change	28%	24%	21%	20%	19%	8%	2%	0%	1%	6%	13%	15%	13%
Alt 1a	% Change	362%	342%	316%	282%	255%	304%	279%	249%	176%	230%	283%	312%	276%
Alt 1c	% Change	215%	195%	172%	143%	119%	142%	120%	109%	81%	115%	146%	159%	140%
Alt 8a	% Change	268%	248%	224%	193%	168%	200%	177%	160%	116%	158%	198%	221%	190%
Alt 10a	% Change	268%	248%	224%	193%	168%	200%	177%	160%	116%	158%	198%	221%	190%
Alt 13a	% Change	306%	286%	261%	229%	203%	242%	218%	195%	140%	187%	234%	260%	225%

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Current Condition		26,409	27,097	27,912	29,055	29,981	26,645	24,956	37,596	41,809	40,926	35,738	31,498	31,635
Full Use	Content	28,344	28,288	28,647	29,773	30,694	25,039	24,158	37,395	41,809	40,486	36,546	34,243	32,119
No Act	Content	27,045	26,789	27,047	28,173	29,094	22,776	21,887	35,876	41,809	40,209	36,260	33,753	30,893
Alt 1a	Content	100,732	97,611	93,838	89,765	86,124	82,329	80,469	99,798	113,738	112,713	109,095	106,667	97,740
Alt 1c	Content	69,792	66,658	62,890	58,808	55,145	51,331	49,359	68,453	82,438	81,504	78,121	75,762	66,688
Alt 8a	Content	80,928	77,825	74,052	69,979	66,338	62,542	60,693	80,011	93,764	92,773	89,126	86,706	77,895
Alt 10a	Content	80,927	77,824	74,051	69,978	66,337	62,541	60,680	80,007	93,764	92,700	89,097	86,722	77,886
Alt 13a	Content	88,846	85,736	81,963	77,890	74,249	70,454	68,502	87,828	101,757	100,745	97,103	94,703	85,815
Content Change from Current Condition														
Full Use	Change	1,935	1,191	736	719	714	-1,607	-798	-202	0	-440	808	2,745	483
No Act	Change	636	-309	-864	-882	-886	-3,869	-3,068	-1,720	0	-717	522	2,255	-742
Alt 1a	Change	74,323	70,514	65,926	60,711	56,144	55,683	55,514	62,202	71,929	71,786	73,357	75,169	66,105
Alt 1c	Change	43,382	39,560	34,978	29,753	25,165	24,686	24,403	30,856	40,629	40,577	42,383	44,264	35,053
Alt 8a	Change	54,518	50,728	46,140	40,925	36,358	35,897	35,737	42,415	51,955	51,846	53,388	55,209	46,260
Alt 10a	Change	54,518	50,727	46,139	40,924	36,357	35,896	35,724	42,410	51,955	51,774	53,359	55,224	46,251
Alt 13a	Change	62,437	58,639	54,051	48,836	44,269	43,808	43,546	50,232	59,948	59,819	61,365	63,206	54,180
Percent change in content from Current Condition														
Full Use	% Change	7%	4%	3%	2%	2%	-6%	-3%	-1%	0%	-1%	2%	9%	2%
No Act	% Change	2%	-1%	-3%	-3%	-3%	-15%	-12%	-5%	0%	-2%	1%	7%	-2%
Alt 1a	% Change	281%	260%	236%	209%	187%	209%	222%	165%	172%	175%	205%	239%	209%
Alt 1c	% Change	164%	146%	125%	102%	84%	93%	98%	82%	97%	99%	119%	141%	111%
Alt 8a	% Change	206%	187%	165%	141%	121%	135%	143%	113%	124%	127%	149%	175%	146%
Alt 10a	% Change	206%	187%	165%	141%	121%	135%	143%	113%	124%	127%	149%	175%	146%
Alt 13a	% Change	236%	216%	194%	168%	148%	164%	174%	134%	143%	146%	172%	201%	171%

Table H-1.11. Gross Reservoir End-of-Month Elevations (ft)

Elevation Change based on comparisons to Current Condition

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Condition		7,228	7,229	7,231	7,234	7,236	7,224	7,219	7,240	7,276	7,264	7,247	7,233	7,238
Full Use	Elevation	7,244	7,242	7,242	7,245	7,248	7,228	7,222	7,241	7,275	7,264	7,255	7,249	7,246
No Act	Elevation	7,239	7,238	7,238	7,241	7,243	7,221	7,215	7,235	7,273	7,261	7,251	7,245	7,242
Alt 1a	Elevation	7,369	7,363	7,356	7,348	7,341	7,333	7,326	7,348	7,382	7,383	7,378	7,375	7,358
Alt 1c	Elevation	7,320	7,314	7,306	7,298	7,290	7,282	7,275	7,298	7,334	7,335	7,330	7,327	7,309
Alt 8a	Elevation	7,340	7,334	7,327	7,319	7,312	7,305	7,298	7,319	7,354	7,354	7,349	7,346	7,330
Alt 10a	Elevation	7,340	7,334	7,327	7,319	7,312	7,305	7,298	7,319	7,354	7,354	7,349	7,346	7,330
Alt 13a	Elevation	7,352	7,346	7,339	7,331	7,324	7,316	7,309	7,330	7,365	7,366	7,361	7,358	7,341
Elevation Change from Current Condition														
Full Use	Change	16	13	12	12	11	4	3	1	-1	0	8	16	8
No Act	Change	11	9	7	7	7	-2	-4	-5	-3	-3	4	12	3
Alt 1a	Change	141	134	125	114	105	110	108	107	105	118	131	142	120
Alt 1c	Change	92	85	75	64	54	58	56	58	58	71	83	93	71
Alt 8a	Change	112	105	96	85	76	81	79	79	78	90	102	112	91
Alt 10a	Change	112	105	96	85	76	81	79	79	78	90	102	112	91
Alt 13a	Change	124	117	108	97	87	92	90	90	89	101	114	124	103
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Current Condition		7,220	7,220	7,221	7,224	7,226	7,211	7,213	7,224	7,257	7,238	7,223	7,214	7,224
Full Use Existing Sys		7,244	7,242	7,242	7,244	7,246	7,225	7,223	7,233	7,265	7,251	7,240	7,232	7,240
No Act	Elevation	7,241	7,238	7,237	7,239	7,241	7,217	7,214	7,223	7,258	7,243	7,231	7,222	7,234
Alt 1a	Elevation	7,375	7,369	7,362	7,355	7,349	7,342	7,337	7,343	7,364	7,361	7,355	7,350	7,355
Alt 1c	Elevation	7,325	7,319	7,313	7,305	7,298	7,290	7,283	7,291	7,314	7,311	7,305	7,298	7,304
Alt 8a	Elevation	7,343	7,337	7,331	7,323	7,317	7,310	7,305	7,311	7,333	7,330	7,325	7,320	7,324
Alt 10a	Elevation	7,343	7,338	7,331	7,323	7,317	7,310	7,305	7,311	7,333	7,330	7,325	7,320	7,324
Alt 13a	Elevation	7,356	7,350	7,343	7,336	7,330	7,323	7,318	7,324	7,346	7,342	7,337	7,333	7,337
Elevation Change from Current Condition														
Full Use	Change	24	22	20	20	19	14	10	9	8	13	16	17	16
No Act	Change	21	18	16	15	15	6	1	-1	0	5	8	8	9
Alt 1a	Change	155	149	141	131	123	131	124	119	107	122	132	135	131
Alt 1c	Change	105	99	91	81	72	79	70	68	57	72	82	84	80
Alt 8a	Change	123	117	109	99	91	99	92	87	76	91	102	106	99
Alt 10a	Change	123	117	109	99	91	99	92	87	76	91	102	106	99
Alt 13a	Change	136	130	122	112	103	112	105	100	88	104	114	119	112
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Current Condition		7,237	7,239	7,242	7,245	7,248	7,237	7,231	7,269	7,282	7,280	7,266	7,253	7,252
Full Use	Elevation	7,244	7,244	7,245	7,248	7,251	7,232	7,229	7,269	7,282	7,279	7,268	7,262	7,254
No Act	Elevation	7,239	7,238	7,239	7,243	7,246	7,223	7,220	7,264	7,282	7,278	7,267	7,261	7,250
Alt 1a	Elevation	7,380	7,375	7,369	7,363	7,357	7,351	7,348	7,378	7,400	7,399	7,393	7,390	7,375
Alt 1c	Elevation	7,331	7,326	7,320	7,313	7,307	7,301	7,297	7,328	7,351	7,349	7,344	7,340	7,326
Alt 8a	Elevation	7,348	7,344	7,337	7,331	7,325	7,319	7,316	7,347	7,369	7,367	7,362	7,358	7,344
Alt 10a	Elevation	7,348	7,344	7,337	7,331	7,325	7,319	7,316	7,347	7,369	7,367	7,362	7,358	7,344
Alt 13a	Elevation	7,361	7,356	7,350	7,344	7,338	7,332	7,329	7,360	7,382	7,380	7,374	7,371	7,356
Elevation Change from Current Condition														
Full Use	Change	7	4	3	3	3	-5	-2	-1	0	-1	2	9	2
No Act	Change	2	-1	-3	-3	-3	-14	-12	-6	0	-2	2	7	-3
Alt 1a	Change	143	136	127	117	109	114	116	109	118	119	127	137	123
Alt 1c	Change	94	86	78	68	59	63	65	59	69	70	78	87	73
Alt 8a	Change	111	104	96	86	77	82	85	78	87	88	96	105	91
Alt 10a	Change	111	104	96	86	77	82	85	78	87	88	96	105	91
Alt 13a	Change	124	117	108	98	90	95	97	90	100	100	109	117	104

Appendix H-1
Comparison of Current Conditions, Full Use of the Existing System, and EIS Alternatives with RFFAs

Table H-1.12. Gross Reservoir End-of-Month Surface Area (acres)

Surface Area Change and % Change are based on comparisons to Current Condition

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Condition		280	282	286	293	299	271	261	311	399	368	325	292	306
Full Use	Surface Area	317	313	314	321	326	280	267	313	397	368	343	330	324
No Act	Surface Area	307	303	303	310	316	265	252	301	390	361	336	321	314
Alt 1a	Surface Area	700	680	657	632	610	586	565	631	743	746	731	720	667
Alt 1c	Surface Area	538	518	494	469	447	423	404	471	584	586	571	559	505
Alt 8a	Surface Area	603	584	561	536	515	492	471	538	651	651	633	622	571
Alt 10a	Surface Area	603	584	561	537	515	492	471	538	652	651	633	622	572
Alt 13a	Surface Area	643	624	600	575	553	529	508	574	689	690	673	662	610
Surface Area Change from Current Condition														
Full Use	Change	37	31	28	27	27	10	6	2	-2	0	19	38	19
No Act	Change	27	21	17	16	16	-5	-9	-10	-9	-7	11	29	8
Alt 1a	Change	420	398	371	339	311	315	304	319	344	378	406	428	361
Alt 1c	Change	258	236	208	176	148	153	143	159	185	218	246	267	200
Alt 8a	Change	322	301	275	243	216	221	210	226	252	282	309	330	266
Alt 10a	Change	323	302	275	244	216	221	211	227	253	282	309	330	266
Alt 13a	Change	362	341	314	282	254	258	247	263	289	321	349	370	304
Percent change in surface area from Current Condition														
Full Use	% Change	13%	11%	10%	9%	9%	4%	2%	1%	-1%	0%	6%	13%	6%
No Act	% Change	10%	7%	6%	6%	5%	-2%	-3%	-3%	-2%	-2%	3%	10%	3%
Alt 1a	% Change	150%	141%	130%	115%	104%	116%	117%	103%	86%	103%	125%	147%	118%
Alt 1c	% Change	92%	83%	73%	60%	50%	56%	55%	51%	46%	59%	76%	91%	65%
Alt 8a	% Change	115%	107%	96%	83%	72%	82%	81%	73%	63%	77%	95%	113%	87%
Alt 10a	% Change	115%	107%	96%	83%	72%	82%	81%	73%	63%	77%	95%	113%	87%
Alt 13a	% Change	129%	121%	110%	96%	85%	95%	95%	84%	73%	87%	107%	127%	100%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Current Condition		260	261	263	270	275	242	245	268	350	304	268	248	271
Full Use	Surface Area	316	312	310	316	321	271	268	289	370	334	307	289	309
No Act	Surface Area	308	302	300	305	310	254	248	267	351	316	289	270	293
Alt 1a	Surface Area	721	701	678	654	633	610	592	612	685	672	654	636	654
Alt 1c	Surface Area	554	534	511	487	465	441	419	443	517	506	488	467	486
Alt 8a	Surface Area	614	595	571	547	526	503	485	506	579	568	552	538	549
Alt 10a	Surface Area	614	595	571	547	526	504	485	506	579	568	553	538	549
Alt 13a	Surface Area	657	637	614	590	569	546	528	548	622	610	595	580	591
Surface Area Change from Current Condition														
Full Use	Change	56	51	47	46	46	30	23	21	20	30	39	41	37
No Act	Change	48	41	36	36	36	12	3	-1	1	12	21	22	22
Alt 1a	Change	461	440	414	384	358	368	347	344	335	368	385	387	383
Alt 1c	Change	294	273	248	217	190	199	175	174	167	202	219	218	215
Alt 8a	Change	354	333	308	278	251	262	240	237	229	264	284	290	277
Alt 10a	Change	354	333	308	278	252	262	240	237	229	264	284	290	278
Alt 13a	Change	397	376	351	320	294	304	283	280	272	306	326	331	320
Percent change in surface area from Current Condition														
Full Use	% Change	22%	19%	18%	17%	17%	12%	9%	8%	6%	10%	14%	17%	14%
No Act	% Change	18%	16%	14%	13%	13%	5%	1%	0%	0%	4%	8%	9%	8%
Alt 1a	% Change	177%	168%	157%	142%	130%	152%	141%	128%	96%	121%	144%	156%	141%
Alt 1c	% Change	113%	105%	94%	81%	69%	82%	71%	65%	48%	66%	82%	88%	79%
Alt 8a	% Change	136%	128%	117%	103%	92%	108%	98%	88%	65%	87%	106%	117%	102%
Alt 10a	% Change	136%	128%	117%	103%	92%	108%	98%	88%	65%	87%	106%	117%	102%
Alt 13a	% Change	153%	144%	133%	119%	107%	126%	116%	104%	78%	101%	122%	133%	118%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Current Condition		301	306	312	321	328	302	289	383	414	408	372	340	340
Full Use	Surface Area	317	316	319	328	334	290	283	381	414	405	378	361	344
No Act	Surface Area	306	304	306	315	322	271	263	369	414	403	376	358	334
Alt 1a	Surface Area	738	721	701	679	659	639	629	732	804	800	781	770	721
Alt 1c	Surface Area	572	555	535	513	493	472	460	564	640	635	616	604	555
Alt 8a	Surface Area	631	615	595	573	553	533	523	627	700	695	675	662	615
Alt 10a	Surface Area	631	615	595	573	553	533	523	627	700	695	675	663	615
Alt 13a	Surface Area	674	657	637	615	596	575	565	668	743	738	718	705	658
Surface Area Change from Current Condition														
Full Use	Change	16	10	7	6	6	-12	-6	-2	0	-3	6	21	4
No Act	Change	5	-2	-6	-6	-6	-31	-26	-13	0	-5	4	18	-6
Alt 1a	Change	437	415	388	358	331	337	340	349	390	392	410	430	381
Alt 1c	Change	271	249	222	192	165	170	171	182	226	227	245	264	215
Alt 8a	Change	330	309	282	251	225	231	234	244	286	287	304	323	276
Alt 10a	Change	330	309	282	251	225	231	234	244	286	287	304	323	275
Alt 13a	Change	373	351	325	294	267	273	276	286	329	330	347	365	318
Percent change in surface area from Current Condition														
Full Use	% Change	5%	3%	2%	2%	2%	-4%	-2%	0%	0%	-1%	2%	6%	1%
No Act	% Change	2%	-1%	-2%	-2%	-2%	-10%	-9%	-3%	0%	-1%	1%	5%	-2%
Alt 1a	% Change	145%	135%	124%	111%	101%	111%	118%	91%	94%	96%	110%	126%	112%
Alt 1c	% Change	90%	81%	71%	60%	50%	56%	59%	48%	54%	56%	66%	78%	63%
Alt 8a	% Change	110%	101%	90%	78%	69%	76%	81%	64%	69%	70%	82%	95%	81%
Alt 10a	% Change	110%	101%	90%	78%	69%	76%	81%	64%	69%	70%	82%	95%	81%
Alt 13a	% Change	124%	115%	104%	92%	82%	90%	96%	75%	80%	81%	93%	108%	94%

Table H-1.13. Antero Reservoir End-of-Month Storage Content (AF)

Content Change and % Change are based on comparisons to Current Condition

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Condition		18,583	18,615	18,575	18,330	18,135	18,042	18,136	18,029	18,305	18,740	18,892	18,703	18,424
Full Use	Content	18,141	18,128	18,045	17,934	17,889	17,896	17,998	17,912	18,101	18,389	18,443	18,282	18,096
No Act	Content	17,540	17,496	17,331	17,177	17,105	17,105	17,144	17,101	17,414	17,746	17,939	17,818	17,410
Alt 1a	Content	17,803	17,826	17,752	17,633	17,550	17,560	17,659	17,594	17,798	18,142	18,215	17,957	17,791
Alt 1c	Content	17,803	17,822	17,750	17,635	17,553	17,562	17,659	17,593	17,799	18,140	18,209	17,956	17,790
Alt 8a	Content	17,820	17,840	17,771	17,652	17,570	17,579	17,677	17,591	17,805	18,147	18,218	17,972	17,804
Alt 10a	Content	17,822	17,840	17,771	17,649	17,567	17,576	17,674	17,591	17,806	18,145	18,223	17,974	17,803
Alt 13a	Content	17,823	17,847	17,768	17,653	17,575	17,585	17,683	17,609	17,815	18,159	18,234	17,974	17,810
Content Change from Current Condition														
Full Use	Change	-442	-487	-530	-396	-246	-147	-138	-117	-204	-351	-449	-421	-327
No Act	Change	-1,043	-1,118	-1,244	-1,154	-1,031	-938	-993	-927	-891	-995	-953	-885	-1,014
Alt 1a	Change	-780	-789	-822	-697	-585	-483	-477	-435	-507	-599	-677	-747	-633
Alt 1c	Change	-780	-793	-824	-696	-582	-480	-477	-436	-507	-601	-684	-747	-634
Alt 8a	Change	-763	-775	-804	-679	-565	-463	-459	-438	-500	-593	-674	-731	-620
Alt 10a	Change	-761	-774	-803	-682	-569	-466	-463	-438	-500	-595	-669	-729	-621
Alt 13a	Change	-760	-767	-806	-677	-560	-458	-453	-420	-491	-581	-658	-729	-613
Percent change in content from Current Condition														
Full Use	% Change	-2%	-3%	-3%	-2%	-1%	-1%	-1%	-1%	-1%	-2%	-2%	-2%	-2%
No Act	% Change	-6%	-6%	-7%	-6%	-6%	-5%	-5%	-5%	-5%	-5%	-5%	-5%	-6%
Alt 1a	% Change	-4%	-4%	-4%	-4%	-3%	-3%	-3%	-2%	-3%	-3%	-4%	-4%	-3%
Alt 1c	% Change	-4%	-4%	-4%	-4%	-3%	-3%	-3%	-2%	-3%	-3%	-4%	-4%	-3%
Alt 8a	% Change	-4%	-4%	-4%	-4%	-3%	-3%	-3%	-2%	-3%	-3%	-4%	-4%	-3%
Alt 10a	% Change	-4%	-4%	-4%	-4%	-3%	-3%	-3%	-2%	-3%	-3%	-4%	-4%	-3%
Alt 13a	% Change	-4%	-4%	-4%	-4%	-3%	-3%	-2%	-2%	-3%	-3%	-3%	-4%	-3%

Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Current Condition		19,619	19,710	19,745	19,764	19,730	19,729	19,787	19,514	19,339	19,299	19,103	18,677	19,501
Full Use	Content	19,519	19,611	19,646	19,667	19,686	19,716	19,729	19,475	19,391	19,345	18,692	18,278	19,396
No Act	Content	19,516	19,610	19,645	19,665	19,670	19,715	19,728	19,629	19,415	19,252	18,809	18,319	19,414
Alt 1a	Content	19,519	19,610	19,646	19,662	19,664	19,715	19,728	19,527	19,383	19,327	18,670	18,007	19,372
Alt 1c	Content	19,519	19,610	19,646	19,662	19,670	19,715	19,728	19,526	19,385	19,330	18,627	18,017	19,370
Alt 8a	Content	19,520	19,610	19,646	19,663	19,672	19,715	19,729	19,526	19,381	19,326	18,694	18,048	19,377
Alt 10a	Content	19,520	19,610	19,646	19,664	19,674	19,715	19,729	19,526	19,380	19,326	18,723	18,049	19,380
Alt 13a	Content	19,516	19,610	19,646	19,663	19,672	19,715	19,728	19,526	19,383	19,322	18,699	18,046	19,377
Content Change from Current Condition														
Full Use	Change	-100	-99	-99	-97	-44	-13	-58	-39	52	46	-411	-399	-105
No Act	Change	-103	-100	-100	-99	-59	-14	-59	115	76	-48	-294	-358	-87
Alt 1a	Change	-100	-99	-99	-101	-66	-13	-58	13	44	28	-433	-670	-130
Alt 1c	Change	-100	-99	-100	-101	-60	-13	-58	12	46	30	-476	-660	-132
Alt 8a	Change	-100	-99	-99	-101	-57	-13	-58	12	42	26	-409	-629	-124
Alt 10a	Change	-100	-99	-99	-99	-56	-13	-58	12	41	26	-380	-628	-121
Alt 13a	Change	-103	-99	-99	-101	-57	-13	-58	12	44	23	-404	-631	-124
Percent change in content from Current Condition														
Full Use	% Change	-1%	-1%	-1%	0%	0%	0%	0%	0%	0%	0%	-2%	-2%	-1%
No Act	% Change	-1%	-1%	-1%	0%	0%	0%	0%	1%	0%	0%	-2%	-2%	0%
Alt 1a	% Change	-1%	-1%	-1%	-1%	0%	0%	0%	0%	0%	0%	-2%	-4%	-1%
Alt 1c	% Change	-1%	-1%	-1%	-1%	0%	0%	0%	0%	0%	0%	-2%	-4%	-1%
Alt 8a	% Change	-1%	-1%	-1%	-1%	0%	0%	0%	0%	0%	0%	-2%	-3%	-1%
Alt 10a	% Change	-1%	-1%	-1%	-1%	0%	0%	0%	0%	0%	0%	-2%	-3%	-1%
Alt 13a	% Change	-1%	-1%	-1%	-1%	0%	0%	0%	0%	0%	0%	-2%	-3%	-1%

Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Current Condition		19,721	19,826	19,826	19,826	19,826	19,826	19,826	19,799	19,800	19,812	19,817	19,744	19,804
Full Use	Content	19,720	19,826	19,826	19,826	19,826	19,826	19,826	19,800	19,800	19,812	19,817	19,732	19,803
No Act	Content	19,729	19,825	19,825	19,826	19,826	19,826	19,826	19,800	19,800	19,812	19,817	19,740	19,804
Alt 1a	Content	19,729	19,826	19,826	19,826	19,826	19,826	19,826	19,800	19,800	19,812	19,817	19,740	19,804
Alt 1c	Content	19,729	19,826	19,826	19,826	19,826	19,826	19,826	19,800	19,800	19,812	19,817	19,740	19,804
Alt 8a	Content	19,729	19,826	19,826	19,826	19,826	19,826	19,826	19,800	19,800	19,812	19,817	19,740	19,804
Alt 10a	Content	19,729	19,826	19,826	19,826	19,826	19,826	19,826	19,800	19,800	19,812	19,817	19,740	19,804
Alt 13a	Content	19,729	19,826	19,826	19,826	19,826	19,826	19,826	19,800	19,800	19,812	19,817	19,740	19,804
Content Change from Current Condition														
Full Use	Change	-1	0	0	0	0	0	0	0	0	0	0	-12	-1
No Act	Change	8	0	-1	0	0	0	0	0	0	0	0	-4	0
Alt 1a	Change	8	0	0	0	0	0	0	0	0	0	0	-3	0
Alt 1c	Change	8	0	0	0	0	0	0	0	0	0	0	-4	0
Alt 8a	Change	8	0	0	0	0	0	0	0	0	0	0	-3	0
Alt 10a	Change	8	0	0	0	0	0	0	0	0	0	0	-3	0
Alt 13a	Change	8	0	0	0	0	0	0	0	0	0	0	-3	0
Percent change in content from Current Condition														
Full Use	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Table H-1.14. Antero Reservoir End-of-Month Elevations (feet)

Elevation Change based on comparisons to Current Condition

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Condition		8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,942	8,942	8,941
Full Use	Elevation	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941
No Act	Elevation	8,941	8,941	8,941	8,940	8,940	8,940	8,940	8,940	8,940	8,941	8,941	8,941	8,941
Alt 1a	Elevation	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941
Alt 1c	Elevation	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941
Alt 8a	Elevation	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941
Alt 10a	Elevation	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941
Alt 13a	Elevation	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941
Elevation Change from Current Condition														
Full Use	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
No Act	Change	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
Alt 1a	Change	-1	-1	-1	0	0	0	0	0	0	0	-1	-1	0
Alt 1c	Change	-1	-1	-1	0	0	0	0	0	0	0	-1	-1	0
Alt 8a	Change	-1	-1	-1	0	0	0	0	0	0	0	-1	-1	0
Alt 10a	Change	-1	-1	-1	0	0	0	0	0	0	0	-1	-1	0
Alt 13a	Change	-1	-1	-1	0	0	0	0	0	0	0	-1	-1	0

Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Current Condition		8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942
Full Use Existing Sys		8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,941	8,942
No Act	Elevation	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,941	8,942
Alt 1a	Elevation	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,941	8,942
Alt 1c	Elevation	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,941	8,942
Alt 8a	Elevation	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,941	8,942
Alt 10a	Elevation	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,941	8,942
Alt 13a	Elevation	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,941	8,942
Elevation Change from Current Condition														
Full Use	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
No Act	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 1a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 1c	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 8a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 10a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 13a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0

Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Current Condition		8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942
Full Use	Elevation	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942
No Act	Elevation	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942
Alt 1a	Elevation	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942
Alt 1c	Elevation	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942
Alt 8a	Elevation	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942
Alt 10a	Elevation	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942
Alt 13a	Elevation	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942
Elevation Change from Current Condition														
Full Use	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
No Act	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 1a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 1c	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 8a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 10a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 13a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0

Table H-1.15. Antero Reservoir End-of-Month Surface Area (acres)

Surface Area Change and % Change are based on comparisons to Current Condition

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Condition		2,230	2,232	2,227	2,198	2,177	2,146	2,151	2,145	2,175	2,233	2,250	2,238	2,200
Full Use	Surface Area	2,180	2,179	2,172	2,162	2,153	2,141	2,147	2,142	2,153	2,191	2,199	2,189	2,167
No Act	Surface Area	2,140	2,133	2,112	2,084	2,073	2,066	2,070	2,069	2,104	2,143	2,165	2,157	2,110
Alt 1a	Surface Area	2,158	2,158	2,153	2,143	2,136	2,134	2,138	2,126	2,140	2,176	2,186	2,169	2,151
Alt 1c	Surface Area	2,158	2,158	2,153	2,143	2,136	2,134	2,137	2,125	2,140	2,175	2,185	2,169	2,151
Alt 8a	Surface Area	2,159	2,159	2,154	2,144	2,137	2,135	2,139	2,125	2,141	2,176	2,186	2,170	2,152
Alt 10a	Surface Area	2,159	2,159	2,154	2,144	2,137	2,135	2,138	2,125	2,141	2,176	2,186	2,170	2,152
Alt 13a	Surface Area	2,160	2,160	2,154	2,145	2,138	2,136	2,140	2,127	2,142	2,177	2,187	2,170	2,153
Surface Area Change from Current Condition														
Full Use	Change	-50	-54	-55	-36	-24	-6	-4	-4	-23	-42	-51	-49	-33
No Act	Change	-91	-100	-115	-113	-104	-80	-81	-77	-72	-90	-85	-81	-91
Alt 1a	Change	-73	-74	-74	-54	-41	-12	-14	-20	-35	-57	-64	-69	-49
Alt 1c	Change	-73	-74	-74	-54	-41	-12	-14	-20	-35	-57	-65	-69	-49
Alt 8a	Change	-71	-73	-73	-53	-40	-11	-13	-20	-35	-57	-64	-68	-48
Alt 10a	Change	-71	-73	-73	-53	-40	-11	-13	-20	-35	-57	-64	-68	-48
Alt 13a	Change	-71	-72	-73	-53	-39	-10	-12	-18	-34	-56	-63	-68	-47
Percent change in surface area from Current Condition														
Full Use	% Change	-2%	-2%	-2%	-2%	-1%	0%	0%	0%	-1%	-2%	-2%	-2%	-2%
No Act	% Change	-4%	-4%	-5%	-5%	-5%	-4%	-4%	-4%	-3%	-4%	-4%	-4%	-4%
Alt 1a	% Change	-3%	-3%	-3%	-2%	-2%	-1%	-1%	-1%	-2%	-3%	-3%	-3%	-2%
Alt 1c	% Change	-3%	-3%	-3%	-2%	-2%	-1%	-1%	-1%	-2%	-3%	-3%	-3%	-2%
Alt 8a	% Change	-3%	-3%	-3%	-2%	-2%	-1%	-1%	-1%	-2%	-3%	-3%	-3%	-2%
Alt 10a	% Change	-3%	-3%	-3%	-2%	-2%	-1%	-1%	-1%	-2%	-3%	-3%	-3%	-2%
Alt 13a	% Change	-3%	-3%	-3%	-2%	-2%	0%	-1%	-1%	-2%	-3%	-3%	-3%	-2%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Current Condition		2,315	2,320	2,322	2,323	2,321	2,321	2,324	2,310	2,300	2,297	2,287	2,262	2,308
Full Use	Surface Area	2,309	2,314	2,316	2,317	2,318	2,320	2,321	2,308	2,303	2,301	2,263	2,239	2,302
No Act	Surface Area	2,309	2,314	2,316	2,317	2,318	2,320	2,321	2,316	2,304	2,295	2,270	2,241	2,303
Alt 1a	Surface Area	2,309	2,314	2,316	2,317	2,317	2,320	2,321	2,310	2,302	2,300	2,262	2,223	2,301
Alt 1c	Surface Area	2,309	2,314	2,316	2,317	2,318	2,320	2,321	2,310	2,303	2,300	2,259	2,224	2,301
Alt 8a	Surface Area	2,309	2,314	2,316	2,317	2,318	2,320	2,321	2,310	2,302	2,300	2,263	2,225	2,301
Alt 10a	Surface Area	2,309	2,314	2,316	2,317	2,318	2,320	2,321	2,310	2,302	2,300	2,265	2,225	2,301
Alt 13a	Surface Area	2,309	2,314	2,316	2,317	2,318	2,320	2,321	2,310	2,302	2,299	2,263	2,225	2,301
Surface Area Change from Current Condition														
Full Use	Change	-6	-6	-6	-6	-3	-1	-3	-2	3	4	-24	-23	-6
No Act	Change	-6	-6	-6	-6	-3	-1	-3	6	5	-2	-17	-21	-5
Alt 1a	Change	-6	-6	-6	-6	-4	-1	-3	0	3	3	-25	-39	-7
Alt 1c	Change	-6	-6	-6	-6	-4	-1	-3	0	3	3	-28	-38	-8
Alt 8a	Change	-6	-6	-6	-6	-3	-1	-3	0	3	2	-24	-37	-7
Alt 10a	Change	-6	-6	-6	-6	-3	-1	-3	0	3	2	-22	-37	-7
Alt 13a	Change	-6	-6	-6	-6	-3	-1	-3	0	3	2	-24	-37	-7
Percent change in surface area from Current Condition														
Full Use	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	-1%	0%
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	-1%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	-2%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	-2%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	-2%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	-2%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	-2%	0%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Current Condition		2,321	2,326	2,326	2,326	2,326	2,326	2,326	2,325	2,325	2,325	2,326	2,322	2,325
Full Use	Surface Area	2,321	2,326	2,326	2,326	2,326	2,326	2,326	2,325	2,325	2,325	2,326	2,321	2,325
No Act	Surface Area	2,321	2,326	2,326	2,326	2,326	2,326	2,326	2,325	2,325	2,325	2,326	2,322	2,325
Alt 1a	Surface Area	2,321	2,326	2,326	2,326	2,326	2,326	2,326	2,325	2,325	2,325	2,326	2,322	2,325
Alt 1c	Surface Area	2,321	2,326	2,326	2,326	2,326	2,326	2,326	2,325	2,325	2,325	2,326	2,322	2,325
Alt 8a	Surface Area	2,321	2,326	2,326	2,326	2,326	2,326	2,326	2,325	2,325	2,325	2,326	2,322	2,325
Alt 10a	Surface Area	2,321	2,326	2,326	2,326	2,326	2,326	2,326	2,325	2,325	2,325	2,326	2,322	2,325
Alt 13a	Surface Area	2,321	2,326	2,326	2,326	2,326	2,326	2,326	2,325	2,325	2,325	2,326	2,322	2,325
Surface Area Change from Current Condition														
Full Use	Change	0	0	0	0	0	0	0	0	0	0	0	-1	0
No Act	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 1a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 1c	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 8a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 10a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 13a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent change in surface area from Current Condition														
Full Use	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Table H-1.16. Eleven Mile Canyon Reservoir End-of-Month Storage Content (AF)

Content Change and % Change are based on comparisons to Current Condition

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Condition		95,512	95,441	95,418	95,285	95,176	95,057	95,030	94,880	95,421	95,939	95,904	95,684	95,396
Full Use	Content	93,240	93,044	92,839	92,509	92,288	92,135	91,976	91,756	92,252	93,608	93,983	93,607	92,770
No Act	Content	91,666	91,428	91,170	90,831	90,645	90,446	90,158	89,896	90,222	91,793	92,282	92,028	91,047
Alt 1a	Content	93,500	93,281	93,093	92,752	92,601	92,572	92,532	92,299	92,545	93,894	94,313	93,841	93,102
Alt 1c	Content	93,445	93,228	93,041	92,701	92,550	92,529	92,504	92,270	92,536	93,865	94,258	93,792	93,060
Alt 8a	Content	93,541	93,325	93,135	92,786	92,630	92,569	92,549	92,319	92,586	93,904	94,337	93,884	93,130
Alt 10a	Content	93,520	93,311	93,120	92,766	92,607	92,572	92,549	92,317	92,578	93,888	94,317	93,863	93,117
Alt 13a	Content	93,518	93,303	93,115	92,772	92,618	92,599	92,582	92,355	92,594	93,924	94,339	93,865	93,132
		Content Change from Current Condition												
Full Use	Change	-2,272	-2,397	-2,579	-2,776	-2,888	-2,922	-3,055	-3,124	-3,169	-2,331	-1,921	-2,076	-2,626
No Act	Change	-3,846	-4,013	-4,248	-4,454	-4,531	-4,611	-4,872	-4,984	-5,199	-4,146	-3,622	-3,656	-4,348
Alt 1a	Change	-2,012	-2,159	-2,325	-2,533	-2,575	-2,485	-2,498	-2,581	-2,876	-2,046	-1,590	-1,843	-2,294
Alt 1c	Change	-2,067	-2,213	-2,377	-2,584	-2,627	-2,528	-2,527	-2,610	-2,885	-2,074	-1,645	-1,892	-2,336
Alt 8a	Change	-1,971	-2,116	-2,283	-2,499	-2,546	-2,487	-2,481	-2,561	-2,835	-2,035	-1,566	-1,800	-2,265
Alt 10a	Change	-1,993	-2,130	-2,298	-2,519	-2,569	-2,485	-2,481	-2,563	-2,843	-2,051	-1,587	-1,821	-2,278
Alt 13a	Change	-1,995	-2,137	-2,303	-2,513	-2,558	-2,458	-2,448	-2,525	-2,827	-2,015	-1,564	-1,819	-2,264
		Percent change in content from Current Condition												
Full Use	% Change	-2%	-3%	-3%	-3%	-3%	-3%	-3%	-3%	-3%	-2%	-2%	-2%	-3%
No Act	% Change	-4%	-4%	-4%	-5%	-5%	-5%	-5%	-5%	-5%	-4%	-4%	-4%	-5%
Alt 1a	% Change	-2%	-2%	-2%	-3%	-3%	-3%	-3%	-3%	-3%	-2%	-2%	-2%	-2%
Alt 1c	% Change	-2%	-2%	-2%	-3%	-3%	-3%	-3%	-3%	-3%	-2%	-2%	-2%	-2%
Alt 8a	% Change	-2%	-2%	-2%	-3%	-3%	-3%	-3%	-3%	-3%	-2%	-2%	-2%	-2%
Alt 10a	% Change	-2%	-2%	-2%	-3%	-3%	-3%	-3%	-3%	-3%	-2%	-2%	-2%	-2%
Alt 13a	% Change	-2%	-2%	-2%	-3%	-3%	-3%	-3%	-3%	-3%	-2%	-2%	-2%	-2%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Current Condition		96,667	96,665	96,679	96,677	96,677	96,670	96,676	96,517	96,552	96,655	96,530	96,059	96,585
Full Use	Content	96,604	96,660	96,669	96,607	96,528	96,672	96,679	96,476	96,592	96,615	96,071	94,738	96,409
No Act	Content	96,602	96,655	96,668	96,587	96,671	96,666	96,677	96,636	96,374	96,331	94,357	92,803	96,086
Alt 1a	Content	96,600	96,661	96,679	96,674	96,671	96,672	96,679	96,528	96,540	96,621	95,878	94,642	96,404
Alt 1c	Content	96,600	96,661	96,679	96,674	96,671	96,672	96,679	96,522	96,539	96,615	95,826	94,558	96,391
Alt 8a	Content	96,601	96,661	96,679	96,673	96,671	96,672	96,679	96,530	96,538	96,621	95,926	94,705	96,413
Alt 10a	Content	96,600	96,661	96,679	96,673	96,671	96,672	96,679	96,521	96,538	96,615	95,954	94,762	96,419
Alt 13a	Content	96,598	96,661	96,679	96,673	96,674	96,672	96,679	96,524	96,538	96,621	95,908	94,679	96,409
		Content Change from Current Condition												
Full Use	Change	-63	-5	-10	-69	-149	1	2	-41	40	-40	-459	-1,321	-176
No Act	Change	-65	-10	-11	-90	-5	-4	0	119	-178	-324	-2,173	-3,256	-500
Alt 1a	Change	-66	-4	0	-3	-6	2	2	11	-13	-34	-652	-1,418	-182
Alt 1c	Change	-66	-4	0	-3	-6	2	2	5	-13	-39	-704	-1,502	-194
Alt 8a	Change	-66	-4	0	-3	-6	2	2	13	-14	-34	-605	-1,354	-172
Alt 10a	Change	-67	-4	0	-3	-6	2	2	4	-14	-39	-577	-1,297	-167
Alt 13a	Change	-69	-4	0	-3	-3	2	2	7	-14	-34	-622	-1,380	-177
		Percent change in content from Current Condition												
Full Use	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-2%	-3%	-1%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	-1%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	-2%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	-1%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	-1%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	-1%	0%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Current Condition		96,663	96,669	96,679	96,679	96,679	96,679	96,670	96,728	97,391	97,203	97,010	96,904	96,830
Full Use	Content	96,667	96,670	96,679	96,679	96,679	96,679	96,670	96,680	97,083	96,904	96,872	96,663	96,744
No Act	Content	96,667	96,670	96,678	96,679	96,679	96,679	96,670	96,684	97,045	96,886	96,889	96,675	96,742
Alt 1a	Content	96,667	96,670	96,679	96,679	96,679	96,679	96,671	96,681	97,076	96,877	96,883	96,675	96,743
Alt 1c	Content	96,667	96,670	96,679	96,679	96,679	96,679	96,671	96,680	97,069	96,877	96,881	96,675	96,742
Alt 8a	Content	96,667	96,670	96,679	96,679	96,679	96,679	96,671	96,681	97,075	96,877	96,883	96,675	96,743
Alt 10a	Content	96,667	96,670	96,679	96,679	96,679	96,679	96,671	96,680	97,065	96,877	96,883	96,675	96,742
Alt 13a	Content	96,667	96,670	96,679	96,679	96,679	96,679	96,671	96,681	97,076	96,880	96,883	96,675	96,743
		Content Change from Current Condition												
Full Use	Change	3	1	0	0	0	0	0	-48	-309	-299	-138	-241	-86
No Act	Change	4	1	-1	0	0	0	0	-45	-347	-316	-120	-229	-88
Alt 1a	Change	3	1	0	0	0	0	1	-47	-315	-326	-127	-229	-87
Alt 1c	Change	3	1	0	0	0	0	1	-48	-323	-326	-129	-229	-87
Alt 8a	Change	3	1	0	0	0	0	1	-48	-316	-326	-127	-229	-87
Alt 10a	Change	3	1	0	0	0	0	1	-49	-326	-326	-127	-229	-88
Alt 13a	Change	3	1	0	0	0	0	1	-48	-315	-323	-127	-229	-86
		Percent change in content from Current Condition												
Full Use	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Table H-1.17. Eleven Mile Canyon Reservoir End-of-Month Elevations (feet)

Elevation Change based on comparisons to Current Condition

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Condition		8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596
Full Use	Elevation	8,595	8,595	8,595	8,595	8,595	8,594	8,594	8,594	8,595	8,595	8,595	8,595	8,595
No Act	Elevation	8,594	8,594	8,594	8,594	8,594	8,594	8,594	8,593	8,594	8,594	8,594	8,594	8,594
Alt 1a	Elevation	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595
Alt 1c	Elevation	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595
Alt 8a	Elevation	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595
Alt 10a	Elevation	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595
Alt 13a	Elevation	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595
Elevation Change from Current Condition														
Full Use	Change	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
No Act	Change	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2
Alt 1a	Change	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
Alt 1c	Change	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
Alt 8a	Change	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
Alt 10a	Change	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
Alt 13a	Change	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1

Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Current Condition		8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596
Full Use Existing Sys		8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596
No Act	Elevation	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,595	8,596
Alt 1a	Elevation	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596
Alt 1c	Elevation	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596
Alt 8a	Elevation	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596
Alt 10a	Elevation	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596
Alt 13a	Elevation	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596
Elevation Change from Current Condition														
Full Use	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
No Act	Change	0	0	0	0	0	0	0	0	0	0	-1	-1	0
Alt 1a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 1c	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 8a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 10a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 13a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0

Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Current Condition		8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,597	8,597	8,596	8,596	8,596
Full Use	Elevation	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,597	8,596	8,596	8,596	8,596
No Act	Elevation	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,597	8,596	8,596	8,596	8,596
Alt 1a	Elevation	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,597	8,596	8,596	8,596	8,596
Alt 1c	Elevation	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,597	8,596	8,596	8,596	8,596
Alt 8a	Elevation	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,597	8,596	8,596	8,596	8,596
Alt 10a	Elevation	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,597	8,596	8,596	8,596	8,596
Alt 13a	Elevation	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,597	8,596	8,596	8,596	8,596
Elevation Change from Current Condition														
Full Use	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
No Act	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 1a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 1c	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 8a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 10a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 13a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0

Table H-1.18. Eleven Mile Canyon Reservoir End-of-Month Surface Area (acres)

Surface Area Change and % Change are based on comparisons to Current Condition

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Condition		3,281	3,279	3,279	3,276	3,273	3,270	3,270	3,266	3,279	3,292	3,291	3,285	3,278
Full Use	Surface Area	3,223	3,219	3,214	3,205	3,200	3,196	3,192	3,186	3,199	3,233	3,242	3,232	3,212
No Act	Surface Area	3,181	3,175	3,168	3,159	3,154	3,149	3,141	3,134	3,143	3,185	3,197	3,190	3,165
Alt 1a	Surface Area	3,231	3,226	3,221	3,213	3,209	3,208	3,207	3,201	3,207	3,241	3,251	3,240	3,221
Alt 1c	Surface Area	3,230	3,225	3,220	3,211	3,207	3,207	3,206	3,200	3,207	3,240	3,250	3,238	3,220
Alt 8a	Surface Area	3,232	3,227	3,222	3,214	3,209	3,208	3,207	3,201	3,208	3,241	3,252	3,241	3,222
Alt 10a	Surface Area	3,232	3,227	3,222	3,213	3,209	3,208	3,207	3,201	3,208	3,241	3,251	3,240	3,222
Alt 13a	Surface Area	3,232	3,226	3,222	3,213	3,209	3,208	3,208	3,202	3,209	3,242	3,252	3,240	3,222
Surface Area Change from Current Condition														
Full Use	Change	-58	-61	-65	-70	-73	-74	-78	-80	-80	-59	-49	-53	-67
No Act	Change	-100	-105	-111	-117	-119	-122	-129	-132	-136	-106	-94	-95	-114
Alt 1a	Change	-50	-54	-58	-63	-64	-63	-63	-65	-72	-50	-40	-46	-57
Alt 1c	Change	-51	-55	-59	-64	-66	-64	-64	-66	-72	-51	-41	-47	-58
Alt 8a	Change	-49	-53	-57	-62	-64	-63	-62	-65	-71	-50	-39	-45	-56
Alt 10a	Change	-49	-53	-57	-63	-64	-63	-62	-65	-71	-51	-39	-45	-57
Alt 13a	Change	-49	-53	-57	-62	-64	-62	-62	-64	-70	-50	-39	-45	-56
Percent change in surface area from Current Condition														
Full Use	% Change	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-1%	-2%	-2%
No Act	% Change	-3%	-3%	-3%	-4%	-4%	-4%	-4%	-4%	-4%	-3%	-3%	-3%	-3%
Alt 1a	% Change	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-1%	-1%	-2%
Alt 1c	% Change	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-1%	-1%	-2%
Alt 8a	% Change	-1%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-1%	-1%	-2%
Alt 10a	% Change	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-1%	-1%	-2%
Alt 13a	% Change	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-1%	-1%	-2%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Current Condition		3,309	3,309	3,309	3,309	3,309	3,309	3,309	3,305	3,306	3,309	3,306	3,295	3,307
Full Use	Surface Area	3,308	3,309	3,309	3,308	3,306	3,309	3,309	3,304	3,307	3,308	3,295	3,263	3,303
No Act	Surface Area	3,307	3,309	3,309	3,307	3,309	3,309	3,309	3,308	3,302	3,301	3,254	3,217	3,295
Alt 1a	Surface Area	3,307	3,309	3,309	3,309	3,309	3,309	3,309	3,306	3,306	3,308	3,290	3,261	3,303
Alt 1c	Surface Area	3,307	3,309	3,309	3,309	3,309	3,309	3,309	3,306	3,306	3,308	3,289	3,259	3,302
Alt 8a	Surface Area	3,307	3,309	3,309	3,309	3,309	3,309	3,309	3,306	3,306	3,308	3,291	3,262	3,303
Alt 10a	Surface Area	3,307	3,309	3,309	3,309	3,309	3,309	3,309	3,306	3,306	3,308	3,292	3,264	3,303
Alt 13a	Surface Area	3,307	3,309	3,309	3,309	3,309	3,309	3,309	3,306	3,306	3,308	3,291	3,262	3,303
Surface Area Change from Current Condition														
Full Use	Change	-2	0	0	-2	-4	0	0	-1	1	-1	-11	-32	-4
No Act	Change	-2	0	0	-2	0	0	0	3	-4	-8	-52	-78	-12
Alt 1a	Change	-2	0	0	0	0	0	0	0	0	-1	-16	-34	-4
Alt 1c	Change	-2	0	0	0	0	0	0	0	0	-1	-17	-36	-5
Alt 8a	Change	-2	0	0	0	0	0	0	0	0	-1	-14	-32	-4
Alt 10a	Change	-2	0	0	0	0	0	0	0	0	-1	-14	-31	-4
Alt 13a	Change	-2	0	0	0	0	0	0	0	0	-1	-15	-33	-4
Percent change in surface area from Current Condition														
Full Use	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-2%	-2%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	-1%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Current Condition		3,309	3,309	3,309	3,309	3,309	3,309	3,309	3,311	3,326	3,322	3,317	3,315	3,313
Full Use	Surface Area	3,309	3,309	3,309	3,309	3,309	3,309	3,309	3,309	3,319	3,315	3,314	3,309	3,311
No Act	Surface Area	3,309	3,309	3,309	3,309	3,309	3,309	3,309	3,309	3,318	3,314	3,314	3,309	3,311
Alt 1a	Surface Area	3,309	3,309	3,309	3,309	3,309	3,309	3,309	3,309	3,319	3,314	3,314	3,309	3,311
Alt 1c	Surface Area	3,309	3,309	3,309	3,309	3,309	3,309	3,309	3,309	3,319	3,314	3,314	3,309	3,311
Alt 8a	Surface Area	3,309	3,309	3,309	3,309	3,309	3,309	3,309	3,309	3,319	3,314	3,314	3,309	3,311
Alt 10a	Surface Area	3,309	3,309	3,309	3,309	3,309	3,309	3,309	3,309	3,319	3,314	3,314	3,309	3,311
Alt 13a	Surface Area	3,309	3,309	3,309	3,309	3,309	3,309	3,309	3,309	3,319	3,314	3,314	3,309	3,311
Surface Area Change from Current Condition														
Full Use	Change	0	0	0	0	0	0	0	-1	-7	-7	-3	-6	-2
No Act	Change	0	0	0	0	0	0	0	-1	-8	-8	-3	-5	-2
Alt 1a	Change	0	0	0	0	0	0	0	-1	-8	-8	-3	-5	-2
Alt 1c	Change	0	0	0	0	0	0	0	-1	-8	-8	-3	-5	-2
Alt 8a	Change	0	0	0	0	0	0	0	-1	-8	-8	-3	-5	-2
Alt 10a	Change	0	0	0	0	0	0	0	-1	-8	-8	-3	-5	-2
Alt 13a	Change	0	0	0	0	0	0	0	-1	-8	-8	-3	-5	-2
Percent change in surface area from Current Condition														
Full Use	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Table H-1.19. Cheesman Reservoir End-of-Month Storage Content (AF)

Content Change and % Change are based on comparisons to Current Condition

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Condition		67,108	66,676	65,674	62,691	61,803	62,652	65,180	67,726	71,171	70,445	69,709	68,398	66,603
Full Use	Content	68,309	67,320	65,891	62,611	61,174	61,675	63,870	65,806	70,464	70,711	70,499	69,229	66,463
No Act	Content	66,577	65,456	64,040	60,743	59,203	59,779	62,243	64,025	68,733	68,944	68,757	67,479	64,665
Alt 1a	Content	67,007	66,292	65,109	62,272	61,130	61,930	63,871	65,176	69,635	69,506	69,282	67,931	65,762
Alt 1c	Content	66,993	66,280	65,101	62,259	61,117	61,895	63,818	65,149	69,571	69,465	69,286	67,922	65,738
Alt 8a	Content	66,959	66,228	65,067	62,233	61,089	61,942	63,893	65,198	69,604	69,530	69,274	67,879	65,741
Alt 10a	Content	66,965	66,226	65,067	62,238	61,097	61,916	63,875	65,189	69,602	69,522	69,283	67,894	65,739
Alt 13a	Content	67,009	66,269	65,104	62,263	61,117	61,916	63,880	65,213	69,613	69,515	69,320	67,950	65,764
Content Change from Current Condition														
Full Use	Change	1,201	644	217	-79	-630	-977	-1,310	-1,921	-707	266	790	831	-140
No Act	Change	-531	-1,219	-1,634	-1,948	-2,600	-2,873	-2,937	-3,701	-2,437	-1,501	-951	-919	-1,938
Alt 1a	Change	-101	-384	-564	-419	-673	-722	-1,309	-2,550	-1,536	-939	-427	-467	-841
Alt 1c	Change	-115	-395	-573	-432	-687	-757	-1,362	-2,578	-1,599	-980	-423	-476	-865
Alt 8a	Change	-149	-448	-607	-458	-714	-710	-1,287	-2,528	-1,566	-915	-434	-519	-861
Alt 10a	Change	-143	-450	-607	-453	-706	-736	-1,305	-2,537	-1,568	-922	-426	-504	-863
Alt 13a	Change	-99	-407	-570	-427	-686	-736	-1,300	-2,513	-1,558	-930	-389	-448	-839
Percent change in content from Current Condition														
Full Use	% Change	2%	1%	0%	0%	-1%	-2%	-2%	-3%	-1%	0%	1%	1%	0%
No Act	% Change	-1%	-2%	-2%	-3%	-4%	-5%	-5%	-5%	-3%	-2%	-1%	-1%	-3%
Alt 1a	% Change	0%	-1%	-1%	-1%	-1%	-1%	-2%	-4%	-2%	-1%	-1%	-1%	-1%
Alt 1c	% Change	0%	-1%	-1%	-1%	-1%	-1%	-2%	-4%	-2%	-1%	-1%	-1%	-1%
Alt 8a	% Change	0%	-1%	-1%	-1%	-1%	-1%	-2%	-4%	-2%	-1%	-1%	-1%	-1%
Alt 10a	% Change	0%	-1%	-1%	-1%	-1%	-1%	-2%	-4%	-2%	-1%	-1%	-1%	-1%
Alt 13a	% Change	0%	-1%	-1%	-1%	-1%	-1%	-2%	-4%	-2%	-1%	-1%	-1%	-1%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Current Condition		70,036	70,168	68,829	65,071	64,013	63,588	63,116	63,350	61,132	57,387	53,135	48,748	62,381
Full Use	Content	77,071	75,977	74,349	70,339	68,905	68,150	67,175	65,386	63,833	59,327	54,854	49,599	66,247
No Act	Content	76,750	75,574	73,868	69,762	68,056	67,354	65,842	62,389	59,903	54,211	48,369	41,102	63,598
Alt 1a	Content	76,771	75,923	74,644	70,942	69,705	69,212	68,212	66,438	64,839	59,224	53,257	46,864	66,336
Alt 1c	Content	76,773	75,923	74,643	70,938	69,690	69,204	68,189	66,405	64,736	59,048	53,093	46,723	66,280
Alt 8a	Content	76,788	75,937	74,658	70,976	69,727	69,247	68,182	66,445	64,809	59,185	53,208	46,734	66,325
Alt 10a	Content	76,799	75,946	74,670	70,970	69,723	69,237	68,215	66,457	64,825	59,143	53,068	46,620	66,306
Alt 13a	Content	76,744	75,906	74,627	70,923	69,689	69,211	68,205	66,422	64,742	59,087	53,132	46,850	66,295
Content Change from Current Condition														
Full Use	Change	7,034	5,809	5,520	5,268	4,892	4,562	4,060	2,036	2,701	1,940	1,719	851	3,866
No Act	Change	6,714	5,406	5,039	4,691	4,043	3,766	2,726	-961	-1,229	-3,176	-4,766	-7,646	1,217
Alt 1a	Change	6,734	5,755	5,814	5,871	5,692	5,624	5,097	3,089	3,706	1,837	122	-1,884	3,955
Alt 1c	Change	6,736	5,756	5,813	5,867	5,678	5,616	5,073	3,055	3,604	1,661	-42	-2,025	3,899
Alt 8a	Change	6,752	5,770	5,828	5,905	5,714	5,659	5,066	3,095	3,677	1,798	73	-2,013	3,944
Alt 10a	Change	6,763	5,779	5,840	5,898	5,710	5,649	5,099	3,107	3,692	1,756	-66	-2,128	3,925
Alt 13a	Change	6,708	5,739	5,798	5,851	5,676	5,623	5,089	3,072	3,609	1,700	-3	-1,897	3,914
Percent change in content from Current Condition														
Full Use	% Change	10%	8%	8%	8%	8%	7%	6%	3%	4%	3%	3%	2%	6%
No Act	% Change	10%	8%	7%	7%	6%	6%	4%	-2%	-2%	-6%	-9%	-16%	2%
Alt 1a	% Change	10%	8%	8%	9%	9%	9%	8%	5%	6%	3%	0%	-4%	6%
Alt 1c	% Change	10%	8%	8%	9%	9%	9%	8%	5%	6%	3%	0%	-4%	6%
Alt 8a	% Change	10%	8%	8%	9%	9%	9%	8%	5%	6%	3%	0%	-4%	6%
Alt 10a	% Change	10%	8%	8%	9%	9%	9%	8%	5%	6%	3%	0%	-4%	6%
Alt 13a	% Change	10%	8%	8%	9%	9%	9%	8%	5%	6%	3%	0%	-4%	6%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Current Condition		75,377	75,382	75,371	73,230	73,050	74,204	74,728	78,375	79,046	78,943	77,862	77,699	76,106
Full Use	Content	78,047	77,328	76,601	74,216	73,385	75,155	76,229	78,569	78,993	78,918	78,438	78,316	77,016
No Act	Content	78,045	77,437	76,945	74,438	73,530	75,126	76,112	78,557	79,022	78,883	78,381	78,170	77,054
Alt 1a	Content	78,048	77,403	76,742	74,370	73,657	75,811	76,541	78,560	78,990	78,781	78,355	78,171	77,119
Alt 1c	Content	78,031	77,403	76,742	74,366	73,652	75,805	76,495	78,560	78,991	78,772	78,346	78,162	77,110
Alt 8a	Content	78,048	77,403	76,746	74,372	73,649	75,816	76,536	78,560	78,990	78,775	78,360	78,171	77,119
Alt 10a	Content	78,048	77,404	76,743	74,358	73,648	75,800	76,557	78,560	78,992	78,773	78,353	78,171	77,117
Alt 13a	Content	78,048	77,406	76,746	74,302	73,576	75,688	76,557	78,557	78,990	78,795	78,366	78,175	77,101
Content Change from Current Condition														
Full Use	Change	2,670	1,946	1,230	985	335	951	1,501	194	-53	-24	576	616	911
No Act	Change	2,668	2,054	1,573	1,208	480	923	1,384	182	-25	-59	519	471	948
Alt 1a	Change	2,671	2,021	1,370	1,140	606	1,607	1,813	185	-56	-161	493	472	1,013
Alt 1c	Change	2,654	2,020	1,371	1,136	602	1,601	1,767	185	-55	-171	484	462	1,005
Alt 8a	Change	2,671	2,021	1,374	1,142	598	1,612	1,808	185	-56	-167	498	472	1,013
Alt 10a	Change	2,671	2,021	1,372	1,127	597	1,596	1,829	185	-55	-170	491	472	1,011
Alt 13a	Change	2,671	2,024	1,375	1,072	525	1,484	1,829	182	-56	-148	504	476	995
Percent change in content from Current Condition														
Full Use	% Change	4%	3%	2%	1%	0%	1%	2%	0%	0%	0%	1%	1%	1%
No Act	% Change	4%	3%	2%	2%	1%	1%	2%	0%	0%	0%	1%	1%	1%
Alt 1a	% Change	4%	3%	2%	2%	1%	2%	2%	0%	0%	0%	1%	1%	1%
Alt 1c	% Change	4%	3%	2%	2%	1%	2%	2%	0%	0%	0%	1%	1%	1%
Alt 8a	% Change	4%	3%	2%	2%	1%	2%	2%	0%	0%	0%	1%	1%	1%
Alt 10a	% Change	4%	3%	2%	2%	1%	2%	2%	0%	0%	0%	1%	1%	1%
Alt 13a	% Change	4%	3%	2%	1%	1%	2%	2%	0%	0%	0%	1%	1%	1%

Table H-1.20. Cheesman Reservoir End-of-Month Elevations (feet)

Elevation Change based on comparisons to Current Condition

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Condition		6,825	6,824	6,823	6,819	6,818	6,819	6,822	6,826	6,831	6,830	6,829	6,827	6,824
Full Use	Elevation	6,824	6,823	6,821	6,817	6,814	6,815	6,818	6,822	6,829	6,829	6,829	6,827	6,822
No Act	Elevation	6,821	6,819	6,817	6,812	6,810	6,810	6,815	6,818	6,826	6,826	6,826	6,823	6,819
Alt 1a	Elevation	6,821	6,820	6,818	6,815	6,813	6,814	6,818	6,820	6,827	6,826	6,826	6,823	6,820
Alt 1c	Elevation	6,821	6,820	6,818	6,815	6,813	6,814	6,818	6,820	6,827	6,826	6,826	6,823	6,820
Alt 8a	Elevation	6,821	6,820	6,818	6,815	6,813	6,814	6,818	6,820	6,827	6,826	6,826	6,823	6,820
Alt 10a	Elevation	6,821	6,820	6,818	6,815	6,813	6,814	6,818	6,820	6,827	6,826	6,826	6,823	6,820
Alt 13a	Elevation	6,821	6,820	6,818	6,815	6,813	6,814	6,818	6,820	6,827	6,826	6,826	6,823	6,820
Elevation Change from Current Condition														
Full Use	Change	-1	-1	-2	-2	-3	-4	-4	-4	-2	-1	0	-1	-2
No Act	Change	-4	-5	-6	-6	-7	-8	-7	-8	-5	-4	-3	-4	-6
Alt 1a	Change	-4	-4	-4	-4	-4	-4	-4	-6	-4	-4	-3	-4	-4
Alt 1c	Change	-4	-4	-4	-4	-4	-4	-4	-6	-4	-4	-3	-4	-4
Alt 8a	Change	-4	-4	-4	-4	-4	-4	-4	-6	-4	-4	-3	-4	-4
Alt 10a	Change	-4	-4	-5	-4	-4	-4	-4	-6	-4	-4	-3	-4	-4
Alt 13a	Change	-4	-4	-4	-4	-4	-4	-4	-6	-4	-4	-3	-4	-4

Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Current Condition		6,831	6,831	6,829	6,825	6,823	6,823	6,822	6,822	6,818	6,813	6,807	6,800	6,820
Full Use Existing Sys		6,839	6,838	6,836	6,831	6,829	6,828	6,827	6,825	6,822	6,815	6,808	6,798	6,825
No Act	Elevation	6,839	6,838	6,835	6,830	6,828	6,827	6,825	6,820	6,816	6,807	6,797	6,781	6,820
Alt 1a	Elevation	6,839	6,838	6,836	6,832	6,830	6,830	6,828	6,826	6,824	6,815	6,806	6,794	6,825
Alt 1c	Elevation	6,839	6,838	6,836	6,832	6,830	6,830	6,828	6,826	6,823	6,815	6,806	6,794	6,825
Alt 8a	Elevation	6,839	6,838	6,836	6,832	6,830	6,830	6,828	6,826	6,823	6,815	6,806	6,794	6,825
Alt 10a	Elevation	6,839	6,838	6,836	6,832	6,830	6,830	6,828	6,826	6,824	6,815	6,806	6,794	6,825
Alt 13a	Elevation	6,839	6,838	6,836	6,832	6,830	6,830	6,828	6,826	6,823	6,815	6,806	6,794	6,825
Elevation Change from Current Condition														
Full Use	Change	9	7	7	7	6	6	5	3	3	2	1	-2	4
No Act	Change	8	7	6	6	5	5	4	-2	-2	-6	-10	-20	0
Alt 1a	Change	8	7	7	7	7	7	7	4	5	2	-1	-6	5
Alt 1c	Change	8	7	7	7	7	7	7	4	5	2	-1	-6	5
Alt 8a	Change	8	7	7	7	7	7	7	4	5	2	-1	-6	5
Alt 10a	Change	8	7	7	7	7	7	7	4	5	2	-1	-6	5
Alt 13a	Change	8	7	7	7	7	7	7	4	5	2	-1	-6	5

Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Current Condition		6,837	6,837	6,837	6,835	6,834	6,836	6,837	6,841	6,842	6,842	6,840	6,840	6,838
Full Use	Elevation	6,841	6,840	6,839	6,836	6,835	6,837	6,838	6,841	6,842	6,842	6,841	6,841	6,839
No Act	Elevation	6,841	6,840	6,839	6,836	6,835	6,837	6,838	6,841	6,842	6,842	6,841	6,841	6,839
Alt 1a	Elevation	6,841	6,840	6,839	6,836	6,835	6,838	6,839	6,841	6,842	6,842	6,841	6,841	6,839
Alt 1c	Elevation	6,841	6,840	6,839	6,836	6,835	6,838	6,839	6,841	6,842	6,842	6,841	6,841	6,839
Alt 8a	Elevation	6,841	6,840	6,839	6,836	6,835	6,838	6,839	6,841	6,842	6,842	6,841	6,841	6,839
Alt 10a	Elevation	6,841	6,840	6,839	6,836	6,835	6,838	6,839	6,841	6,842	6,842	6,841	6,841	6,839
Alt 13a	Elevation	6,841	6,840	6,839	6,836	6,835	6,838	6,839	6,841	6,842	6,842	6,841	6,841	6,839
Elevation Change from Current Condition														
Full Use	Change	3	2	2	1	0	1	2	0	0	0	1	1	1
No Act	Change	3	3	2	1	1	1	2	0	0	0	1	1	1
Alt 1a	Change	3	2	2	1	1	2	2	0	0	0	1	1	1
Alt 1c	Change	3	2	2	1	1	2	2	0	0	0	1	1	1
Alt 8a	Change	3	2	2	1	1	2	2	0	0	0	1	1	1
Alt 10a	Change	3	2	2	1	1	2	2	0	0	0	1	1	1
Alt 13a	Change	3	3	2	1	1	2	2	0	0	0	1	1	1

Table H-1.21. Cheesman Reservoir End-of-Month Surface Area (acres)

Surface Area Change and % Change are based on comparisons to Current Condition

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Condition		783	780	772	750	743	749	768	788	815	809	804	794	779
Full Use	Surface Area	786	778	767	743	731	734	752	769	806	808	806	795	773
No Act	Surface Area	770	760	749	724	712	715	736	752	791	793	791	778	756
Alt 1a	Surface Area	772	766	757	737	728	734	751	763	798	796	793	781	765
Alt 1c	Surface Area	772	766	757	736	728	733	750	762	798	795	793	781	764
Alt 8a	Surface Area	771	765	757	736	728	734	751	763	798	796	793	781	764
Alt 10a	Surface Area	771	765	757	736	728	734	751	763	798	796	793	781	764
Alt 13a	Surface Area	772	766	757	737	728	734	751	763	798	796	794	781	765
Surface Area Change from Current Condition														
Full Use	Change	2	-1	-5	-7	-12	-15	-16	-19	-9	-2	1	0	-7
No Act	Change	-14	-19	-23	-25	-30	-33	-32	-36	-23	-16	-14	-16	-23
Alt 1a	Change	-12	-13	-14	-13	-15	-15	-17	-25	-16	-14	-11	-13	-15
Alt 1c	Change	-12	-14	-15	-13	-15	-15	-17	-26	-17	-14	-11	-13	-15
Alt 8a	Change	-12	-14	-15	-13	-15	-15	-17	-25	-17	-14	-11	-14	-15
Alt 10a	Change	-12	-14	-15	-13	-15	-15	-17	-25	-17	-14	-11	-13	-15
Alt 13a	Change	-12	-14	-14	-13	-15	-15	-17	-25	-16	-14	-11	-13	-15
Percent change in surface area from Current Condition														
Full Use	% Change	0%	0%	-1%	-1%	-2%	-2%	-2%	-2%	-1%	0%	0%	0%	-1%
No Act	% Change	-2%	-2%	-3%	-3%	-4%	-4%	-4%	-5%	-3%	-2%	-2%	-2%	-3%
Alt 1a	% Change	-1%	-2%	-2%	-2%	-2%	-2%	-2%	-3%	-2%	-2%	-1%	-2%	-2%
Alt 1c	% Change	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-3%	-2%	-2%	-1%	-2%	-2%
Alt 8a	% Change	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-3%	-2%	-2%	-1%	-2%	-2%
Alt 10a	% Change	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-3%	-2%	-2%	-1%	-2%	-2%
Alt 13a	% Change	-1%	-2%	-2%	-2%	-2%	-2%	-2%	-3%	-2%	-2%	-1%	-2%	-2%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Current Condition		810	811	802	775	767	764	760	761	743	715	682	646	753
Full Use	Surface Area	860	852	841	812	802	797	790	776	763	727	690	642	779
No Act	Surface Area	858	849	837	808	796	791	780	753	733	685	636	563	757
Alt 1a	Surface Area	858	852	843	817	808	804	797	784	771	727	680	622	780
Alt 1c	Surface Area	858	852	843	817	808	804	797	784	770	726	678	621	780
Alt 8a	Surface Area	858	852	843	817	808	805	797	784	771	727	679	621	780
Alt 10a	Surface Area	858	852	843	817	808	805	797	784	771	726	678	620	780
Alt 13a	Surface Area	858	852	843	816	808	804	797	784	770	726	679	622	780
Surface Area Change from Current Condition														
Full Use	Change	50	41	39	37	35	33	30	15	20	12	8	-5	26
No Act	Change	47	38	36	33	29	27	20	-8	-11	-29	-46	-83	4
Alt 1a	Change	48	41	41	42	41	40	37	23	28	12	-2	-25	27
Alt 1c	Change	48	41	41	41	40	40	37	23	27	11	-4	-26	27
Alt 8a	Change	48	41	41	42	41	41	37	23	27	12	-3	-26	27
Alt 10a	Change	48	41	41	42	41	40	37	23	27	12	-4	-27	27
Alt 13a	Change	47	41	41	41	40	40	37	23	27	11	-3	-25	27
Percent change in surface area from Current Condition														
Full Use	% Change	6%	5%	5%	5%	5%	4%	4%	2%	3%	2%	1%	-1%	3%
No Act	% Change	6%	5%	4%	4%	4%	4%	3%	-1%	-1%	-4%	-7%	-13%	1%
Alt 1a	% Change	6%	5%	5%	5%	5%	5%	5%	3%	4%	2%	0%	-4%	4%
Alt 1c	% Change	6%	5%	5%	5%	5%	5%	5%	3%	4%	2%	-1%	-4%	4%
Alt 8a	% Change	6%	5%	5%	5%	5%	5%	5%	3%	4%	2%	0%	-4%	4%
Alt 10a	% Change	6%	5%	5%	5%	5%	5%	5%	3%	4%	2%	-1%	-4%	4%
Alt 13a	% Change	6%	5%	5%	5%	5%	5%	5%	3%	4%	2%	0%	-4%	4%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Current Condition		848	848	848	833	831	840	843	869	874	873	866	864	853
Full Use	Surface Area	867	862	857	840	834	846	854	871	873	873	870	869	860
No Act	Surface Area	867	862	859	841	835	846	853	870	874	873	869	868	860
Alt 1a	Surface Area	867	862	858	841	836	851	856	870	873	872	869	868	860
Alt 1c	Surface Area	867	862	858	841	836	851	856	870	873	872	869	868	860
Alt 8a	Surface Area	867	862	858	841	836	851	856	870	873	872	869	868	860
Alt 10a	Surface Area	867	862	858	841	836	851	856	870	873	872	869	868	860
Alt 13a	Surface Area	867	862	858	840	835	850	856	870	873	872	869	868	860
Surface Area Change from Current Condition														
Full Use	Change	19	14	9	7	2	7	11	1	0	0	4	4	6
No Act	Change	19	15	11	9	3	7	10	1	0	0	4	3	7
Alt 1a	Change	19	14	10	8	4	11	13	1	0	-1	3	3	7
Alt 1c	Change	19	14	10	8	4	11	12	1	0	-1	3	3	7
Alt 8a	Change	19	14	10	8	4	11	13	1	0	-1	4	3	7
Alt 10a	Change	19	14	10	8	4	11	13	1	0	-1	3	3	7
Alt 13a	Change	19	14	10	8	4	10	13	1	0	-1	4	3	7
Percent change in surface area from Current Condition														
Full Use	% Change	2%	2%	1%	1%	0%	1%	1%	0%	0%	0%	0%	1%	1%
No Act	% Change	2%	2%	1%	1%	0%	1%	1%	0%	0%	0%	0%	0%	1%
Alt 1a	% Change	2%	2%	1%	1%	1%	1%	2%	0%	0%	0%	0%	0%	1%
Alt 1c	% Change	2%	2%	1%	1%	1%	1%	1%	0%	0%	0%	0%	0%	1%
Alt 8a	% Change	2%	2%	1%	1%	1%	1%	2%	0%	0%	0%	0%	0%	1%
Alt 10a	% Change	2%	2%	1%	1%	1%	1%	2%	0%	0%	0%	0%	0%	1%
Alt 13a	% Change	2%	2%	1%	1%	0%	1%	2%	0%	0%	0%	0%	0%	1%

Table H-1.22. Leyden Gulch Reservoir End-of-Month Storage Content (AF)

Content Change and % Change are based on comparisons to Current Condition

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Condition		--	--	--	--	--	--	--	--	--	--	--	--	--
Full Use	Content	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	Content	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	Content	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	Content	29,352	29,350	29,232	28,979	28,754	28,461	27,844	28,375	29,152	29,222	29,338	29,415	28,956
Alt 8a	Content	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 10a	Content	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 13a	Content	--	--	--	--	--	--	--	--	--	--	--	--	--
Content Change from Current Condition														
Full Use	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 8a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 10a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 13a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Percent change in content from Current Condition														
Full Use	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 8a	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 10a	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 13a	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Current Condition		--	--	--	--	--	--	--	--	--	--	--	--	--
Full Use	Content	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	Content	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	Content	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	Content	30,709	30,724	30,713	30,639	30,599	30,541	30,475	30,516	30,687	30,073	29,761	29,644	30,423
Alt 8a	Content	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 10a	Content	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 13a	Content	--	--	--	--	--	--	--	--	--	--	--	--	--
Content Change from Current Condition														
Full Use	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 8a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 10a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 13a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Percent change in content from Current Condition														
Full Use	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 8a	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 10a	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 13a	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Current Condition		--	--	--	--	--	--	--	--	--	--	--	--	--
Full Use	Content	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	Content	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	Content	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	Content	30,763	30,797	30,785	30,783	30,789	30,811	30,893	31,090	30,860	30,648	30,601	30,730	30,796
Alt 8a	Content	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 10a	Content	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 13a	Content	--	--	--	--	--	--	--	--	--	--	--	--	--
Content Change from Current Condition														
Full Use	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 8a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 10a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 13a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Percent change in content from Current Condition														
Full Use	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 8a	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 10a	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 13a	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--

Table H-1.23. Leyden Gulch Reservoir End-of-Month Elevations (feet)

Elevation Change based on comparisons to Current Condition

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Condition		--	--	--	--	--	--	--	--	--	--	--	--	--
Full Use	Elevation	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	Elevation	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	Elevation	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	Elevation	6,121	6,121	6,120	6,119	6,118	6,116	6,113	6,116	6,120	6,120	6,121	6,121	6,119
Alt 8a	Elevation	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 10a	Elevation	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 13a	Elevation	--	--	--	--	--	--	--	--	--	--	--	--	--
Elevation Change from Current Condition														
Full Use	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 8a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 10a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 13a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--

Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Current Condition		--	--	--	--	--	--	--	--	--	--	--	--	--
Full Use Existing Sys		--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	Elevation	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	Elevation	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	Elevation	6,126	6,126	6,126	6,125	6,125	6,125	6,125	6,125	6,126	6,124	6,123	6,123	6,125
Alt 8a	Elevation	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 10a	Elevation	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 13a	Elevation	--	--	--	--	--	--	--	--	--	--	--	--	--
Elevation Change from Current Condition														
Full Use	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 8a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 10a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 13a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--

Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Current Condition		--	--	--	--	--	--	--	--	--	--	--	--	--
Full Use	Elevation	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	Elevation	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	Elevation	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	Elevation	6,126	6,126	6,126	6,126	6,126	6,126	6,126	6,127	6,126	6,125	6,125	6,126	6,126
Alt 8a	Elevation	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 10a	Elevation	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 13a	Elevation	--	--	--	--	--	--	--	--	--	--	--	--	--
Elevation Change from Current Condition														
Full Use	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 8a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 10a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 13a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--

Table H-1.24. Leyden Gulch Reservoir End-of-Month Surface Area (acres)

Surface Area Change and % Change are based on comparisons to Current Condition

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Condition		--	--	--	--	--	--	--	--	--	--	--	--	--
Full Use	Surface Area	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	Surface Area	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	Surface Area	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	Surface Area	318	318	317	315	312	309	304	310	317	317	318	319	314
Alt 8a	Surface Area	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 10a	Surface Area	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 13a	Surface Area	--	--	--	--	--	--	--	--	--	--	--	--	--
Surface Area Change from Current Condition														
Full Use	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 8a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 10a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 13a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Percent change in surface area from Current Condition														
Full Use	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 8a	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 10a	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 13a	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--

Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Current Condition		--	--	--	--	--	--	--	--	--	--	--	--	--
Full Use	Surface Area	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	Surface Area	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	Surface Area	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	Surface Area	329	329	329	328	328	328	327	327	328	325	323	322	327
Alt 8a	Surface Area	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 10a	Surface Area	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 13a	Surface Area	--	--	--	--	--	--	--	--	--	--	--	--	--
Surface Area Change from Current Condition														
Full Use	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 8a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 10a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 13a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Percent change in surface area from Current Condition														
Full Use	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 8a	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 10a	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 13a	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--

Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Current Condition		--	--	--	--	--	--	--	--	--	--	--	--	--
Full Use	Surface Area	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	Surface Area	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	Surface Area	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	Surface Area	329	329	329	329	329	329	330	331	329	328	328	329	329
Alt 8a	Surface Area	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 10a	Surface Area	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 13a	Surface Area	--	--	--	--	--	--	--	--	--	--	--	--	--
Surface Area Change from Current Condition														
Full Use	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 8a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 10a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 13a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Percent change in surface area from Current Condition														
Full Use	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 8a	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 10a	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 13a	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--

Table H-1.25. Gravel Pit and Deep Aquifer End-of-Month Storage Content (AF)

Content Change and % Change are based on comparisons to Current Condition

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Condition		--	--	--	--	--	--	--	--	--	--	--	--	--
Full Use	Content	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	Content	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	Content	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	Content	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 8a	Content	2,993	3,135	3,388	3,620	3,745	3,949	3,980	3,839	3,644	3,422	3,159	2,952	3,486
Alt 10a	Content	3,773	3,832	3,906	4,003	4,092	4,173	4,168	4,089	4,026	3,968	3,877	3,774	3,973
Alt 13a	Content	2,500	2,400	2,340	2,326	2,308	2,281	2,299	2,348	2,436	2,586	2,653	2,636	2,426
Content Change from Current Condition														
Full Use	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 8a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 10a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 13a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Percent change in content from Current Condition														
Full Use	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 8a	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 10a	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 13a	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Current Condition		--	--	--	--	--	--	--	--	--	--	--	--	--
Full Use	Content	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	Content	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	Content	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	Content	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 8a	Content	3,626	3,814	4,208	4,473	4,583	4,612	4,609	4,562	4,362	4,046	3,435	2,794	4,094
Alt 10a	Content	4,549	4,601	4,706	4,812	4,999	5,001	5,001	5,001	4,947	4,779	4,365	3,789	4,712
Alt 13a	Content	2,983	2,949	2,933	2,919	2,901	2,888	2,964	2,997	2,962	2,789	2,600	2,242	2,844
Content Change from Current Condition														
Full Use	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 8a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 10a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 13a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Percent change in content from Current Condition														
Full Use	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 8a	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 10a	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 13a	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Current Condition		--	--	--	--	--	--	--	--	--	--	--	--	--
Full Use	Content	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	Content	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	Content	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	Content	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 8a	Content	2,363	2,542	2,741	3,052	3,298	3,614	3,699	3,755	3,716	3,587	3,430	3,320	3,260
Alt 10a	Content	3,632	3,723	3,820	3,964	4,192	4,292	4,328	4,385	4,424	4,451	4,480	4,508	4,183
Alt 13a	Content	2,893	2,874	2,863	2,852	2,835	2,833	2,819	2,908	2,948	2,996	2,995	2,996	2,901
Content Change from Current Condition														
Full Use	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 8a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 10a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 13a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Percent change in content from Current Condition														
Full Use	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 8a	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 10a	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 13a	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table H-1.26. Gravel Pit End-of-Month Elevations (feet)

Elevation Change based on comparisons to Current Condition

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Condition		--	--	--	--	--	--	--	--	--	--	--	--	--
Full Use	Elevation	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	Elevation	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	Elevation	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	Elevation	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 8a	Elevation	4,704	4,706	4,710	4,714	4,715	4,718	4,718	4,716	4,713	4,710	4,707	4,704	4,711
Alt 10a	Elevation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 13a	Elevation	4,695	4,695	4,694	4,694	4,694	4,694	4,694	4,694	4,695	4,696	4,697	4,697	4,695
Elevation Change from Current Condition														
Full Use	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 8a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 10a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 13a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Current Condition		--	--	--	--	--	--	--	--	--	--	--	--	--
Full Use Existing Sys		--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	Elevation	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	Elevation	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	Elevation	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 8a	Elevation	4,710	4,714	4,720	4,725	4,726	4,727	4,727	4,726	4,723	4,718	4,710	4,701	4,719
Alt 10a	Elevation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 13a	Elevation	4,700	4,700	4,699	4,699	4,699	4,699	4,700	4,700	4,700	4,698	4,696	4,693	4,699
Elevation Change from Current Condition														
Full Use	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 8a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 10a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 13a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Current Condition		--	--	--	--	--	--	--	--	--	--	--	--	--
Full Use	Elevation	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	Elevation	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	Elevation	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	Elevation	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 8a	Elevation	4,697	4,699	4,702	4,706	4,710	4,713	4,714	4,715	4,714	4,712	4,709	4,707	4,708
Alt 10a	Elevation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 13a	Elevation	4,699	4,699	4,699	4,699	4,699	4,698	4,698	4,699	4,700	4,700	4,700	4,700	4,699
Elevation Change from Current Condition														
Full Use	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 8a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 10a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 13a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table H-1.27. Gravel Pit End-of-Month Surface Area (acres)

Surface Area Change and % Change are based on comparisons to Current Condition

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Condition		--	--	--	--	--	--	--	--	--	--	--	--	--
Full Use	Surface Area	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	Surface Area	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	Surface Area	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	Surface Area	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 8a	Surface Area	363	380	411	439	454	479	483	466	442	415	383	358	423
Alt 10a	Surface Area	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 13a	Surface Area	303	291	284	282	280	277	279	285	296	314	322	320	294
Surface Area Change from Current Condition														
Full Use	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 8a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 10a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 13a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Percent change in surface area from Current Condition														
Full Use	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 8a	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 10a	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 13a	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Current Condition		--	--	--	--	--	--	--	--	--	--	--	--	--
Full Use	Surface Area	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	Surface Area	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	Surface Area	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	Surface Area	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 8a	Surface Area	440	463	511	543	556	560	559	553	529	491	417	339	497
Alt 10a	Surface Area	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 13a	Surface Area	362	358	356	354	352	350	360	364	359	338	315	272	345
Surface Area Change from Current Condition														
Full Use	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 8a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 10a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 13a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Percent change in surface area from Current Condition														
Full Use	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 8a	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 10a	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 13a	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Current Condition		--	--	--	--	--	--	--	--	--	--	--	--	--
Full Use	Surface Area	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	Surface Area	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	Surface Area	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	Surface Area	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 8a	Surface Area	287	308	333	370	400	438	449	456	451	435	416	403	396
Alt 10a	Surface Area	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 13a	Surface Area	351	349	347	346	344	344	342	353	358	363	363	364	352
Surface Area Change from Current Condition														
Full Use	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 8a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 10a	Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 13a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Percent change in surface area from Current Condition														
Full Use	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
No Act	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1a	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 1c	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 8a	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 10a	% Change	--	--	--	--	--	--	--	--	--	--	--	--	--
Alt 13a	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Appendix H-1
Comparison of Current Conditions, Full Use of the Existing System, and EIS Alternatives with RFFAs

Table H-1.28. Moffat Tunnel Diversions (cfs)

Flow Change and % Change are based on comparisons to Current Conditions

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		44.4	26.1	18.4	14.9	13.4	13.4	29.6	194.1	331.3	181.6	110.9	75.5	87.8
Full Use	Flow	44.9	24.4	17.0	15.0	13.4	13.4	29.6	199.0	345.4	205.2	114.7	76.4	91.5
No Act	Flow	45.1	24.4	17.0	14.7	13.4	13.4	29.6	206.5	368.0	210.9	116.6	76.8	94.7
Alt 1a	Flow	45.0	24.9	17.4	15.6	14.1	13.7	29.6	224.9	451.3	235.5	120.4	76.8	105.8
Alt 1c	Flow	45.0	24.9	17.4	15.6	14.1	13.7	29.6	224.9	448.8	235.3	120.4	76.8	105.5
Alt 8a	Flow	45.7	24.9	17.4	15.6	14.1	13.7	29.6	224.9	445.6	226.5	115.7	76.8	104.2
Alt 10a	Flow	45.7	24.9	17.4	15.6	14.1	13.7	29.6	224.9	445.6	226.4	115.8	76.8	104.2
Alt 13a	Flow	45.4	24.9	17.4	15.6	14.1	13.7	29.6	224.9	449.5	231.1	118.5	76.7	105.1
		Flow change from Current Conditions												
Full Use	Div. Change	0.4	-1.7	-1.4	0.1	0.0	0.0	0.0	4.8	14.0	23.6	3.8	0.9	3.7
No Act	Div. Change	0.7	-1.7	-1.5	-0.2	0.0	0.0	0.0	12.4	36.7	29.3	5.7	1.3	6.9
Alt 1a	Div. Change	0.5	-1.2	-1.0	0.7	0.7	0.3	0.0	30.8	119.9	53.9	9.4	1.3	17.9
Alt 1c	Div. Change	0.5	-1.2	-1.0	0.7	0.7	0.3	0.0	30.8	117.4	53.7	9.5	1.3	17.7
Alt 8a	Div. Change	1.3	-1.2	-1.0	0.7	0.7	0.3	0.0	30.8	114.3	44.9	4.8	1.3	16.4
Alt 10a	Div. Change	1.3	-1.2	-1.0	0.7	0.7	0.3	0.0	30.8	114.3	44.8	4.8	1.3	16.4
Alt 13a	Div. Change	0.9	-1.2	-1.0	0.7	0.7	0.3	0.0	30.8	118.1	49.5	7.6	1.2	17.3
		Percent change in flow from Current Conditions												
Full Use	% Change	1%	-7%	-8%	1%	0%	0%	0%	2%	4%	13%	3%	1%	4%
No Act	% Change	2%	-6%	-8%	-1%	0%	0%	0%	6%	11%	16%	5%	2%	8%
Alt 1a	% Change	1%	-5%	-6%	5%	5%	2%	0%	16%	36%	30%	8%	2%	20%
Alt 1c	% Change	1%	-5%	-6%	5%	5%	2%	0%	16%	35%	30%	9%	2%	20%
Alt 8a	% Change	3%	-5%	-6%	5%	5%	2%	0%	16%	34%	25%	4%	2%	19%
Alt 10a	% Change	3%	-5%	-6%	5%	5%	2%	0%	16%	34%	25%	4%	2%	19%
Alt 13a	% Change	2%	-5%	-6%	5%	5%	2%	0%	16%	36%	27%	7%	2%	20%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Conditions		36.8	22.3	14.9	11.7	10.4	10.1	30.1	178.2	322.8	93.3	87.6	54.4	72.7
Full Use	Flow	36.0	19.9	13.0	11.4	10.3	10.1	30.1	180.2	332.3	114.4	91.4	55.6	75.4
No Act	Flow	36.0	19.9	13.0	11.4	10.3	10.1	30.1	180.2	332.3	114.4	91.4	55.6	75.4
Alt 1a	Flow	36.0	19.9	13.0	11.4	10.3	10.1	30.1	180.2	332.3	114.4	91.4	55.6	75.4
Alt 1c	Flow	36.0	19.9	13.0	11.4	10.3	10.1	30.1	180.2	332.3	114.4	91.4	55.6	75.4
Alt 8a	Flow	36.0	19.9	13.0	11.4	10.3	10.1	30.1	180.2	332.3	114.4	91.4	55.6	75.4
Alt 10a	Flow	36.0	19.9	13.0	11.4	10.3	10.1	30.1	180.2	332.3	114.4	91.4	55.6	75.4
Alt 13a	Flow	36.0	19.9	13.0	11.4	10.3	10.1	30.1	180.2	332.3	114.4	91.4	55.6	75.4
		Flow change from Current Conditions												
Full Use	Div. Change	-0.9	-2.4	-1.9	-0.3	-0.1	0.0	0.0	2.0	9.5	21.1	3.8	1.2	2.7
No Act	Div. Change	-0.9	-2.4	-1.9	-0.3	-0.1	0.0	0.0	2.0	9.5	21.1	3.8	1.2	2.7
Alt 1a	Div. Change	-0.9	-2.4	-1.9	-0.3	-0.1	0.0	0.0	2.0	9.5	21.1	3.8	1.2	2.7
Alt 1c	Div. Change	-0.9	-2.4	-1.9	-0.3	-0.1	0.0	0.0	2.0	9.5	21.1	3.8	1.2	2.7
Alt 8a	Div. Change	-0.9	-2.4	-1.9	-0.3	-0.1	0.0	0.0	2.0	9.5	21.1	3.8	1.2	2.7
Alt 10a	Div. Change	-0.9	-2.4	-1.9	-0.3	-0.1	0.0	0.0	2.0	9.5	21.1	3.8	1.2	2.7
Alt 13a	Div. Change	-0.9	-2.4	-1.9	-0.3	-0.1	0.0	0.0	2.0	9.5	21.1	3.8	1.2	2.7
		Percent change in flow from Current Conditions												
Full Use	% Change	-2%	-11%	-13%	-2%	-1%	0%	0%	1%	3%	23%	4%	2%	4%
No Act	% Change	-2%	-11%	-13%	-2%	-1%	0%	0%	1%	3%	23%	4%	2%	4%
Alt 1a	% Change	-2%	-11%	-13%	-2%	-1%	0%	0%	1%	3%	23%	4%	2%	4%
Alt 1c	% Change	-2%	-11%	-13%	-2%	-1%	0%	0%	1%	3%	23%	4%	2%	4%
Alt 8a	% Change	-2%	-11%	-13%	-2%	-1%	0%	0%	1%	3%	23%	4%	2%	4%
Alt 10a	% Change	-2%	-11%	-13%	-2%	-1%	0%	0%	1%	3%	23%	4%	2%	4%
Alt 13a	% Change	-2%	-11%	-13%	-2%	-1%	0%	0%	1%	3%	23%	4%	2%	4%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Conditions		70.1	34.0	23.4	19.4	18.0	17.0	36.4	162.2	147.5	193.0	126.0	97.6	78.7
Full Use	Flow	69.4	31.8	21.4	19.1	17.9	17.0	36.4	194.5	171.1	214.8	135.3	103.2	86.0
No Act	Flow	68.8	31.6	21.4	19.1	17.9	17.0	36.4	201.0	190.5	225.2	147.9	106.0	90.2
Alt 1a	Flow	69.1	31.6	21.4	19.1	17.9	17.0	36.4	247.3	296.8	223.0	142.6	106.1	102.4
Alt 1c	Flow	69.1	31.6	21.4	19.1	17.9	17.0	36.4	247.0	290.4	220.8	140.4	106.3	101.4
Alt 8a	Flow	68.9	31.6	21.4	19.1	17.9	17.0	36.4	247.0	292.0	222.9	142.4	106.1	101.9
Alt 10a	Flow	68.8	31.6	21.4	19.1	17.9	17.0	36.4	247.2	292.8	222.7	142.5	106.1	102.0
Alt 13a	Flow	69.1	31.6	21.4	19.1	17.9	17.0	36.4	247.2	293.4	222.5	142.6	106.1	102.0
		Flow change from Current Conditions												
Full Use	Div. Change	-0.7	-2.3	-2.0	-0.3	-0.1	0.0	0.0	32.3	23.5	21.8	9.3	5.6	7.3
No Act	Div. Change	-1.3	-2.5	-2.0	-0.3	-0.1	0.0	0.0	38.8	42.9	32.2	21.9	8.4	11.5
Alt 1a	Div. Change	-1.0	-2.5	-2.0	-0.3	-0.1	0.0	0.0	85.1	149.3	30.0	16.6	8.6	23.6
Alt 1c	Div. Change	-1.0	-2.5	-2.0	-0.3	-0.1	0.0	0.0	84.7	142.8	27.8	14.5	8.7	22.7
Alt 8a	Div. Change	-1.2	-2.5	-2.0	-0.3	-0.1	0.0	0.0	84.8	144.4	29.9	16.5	8.6	23.2
Alt 10a	Div. Change	-1.3	-2.5	-2.0	-0.3	-0.1	0.0	0.0	85.0	145.3	29.7	16.5	8.6	23.2
Alt 13a	Div. Change	-1.0	-2.5	-2.0	-0.3	-0.1	0.0	0.0	85.0	145.9	29.5	16.6	8.6	23.3
		Percent change in flow from Current Conditions												
Full Use	% Change	-1%	-7%	-8%	-1%	0%	0%	0%	20%	16%	11%	7%	6%	9%
No Act	% Change	-2%	-7%	-8%	-1%	0%	0%	0%	24%	29%	17%	17%	9%	15%
Alt 1a	% Change	-1%	-7%	-8%	-1%	0%	0%	0%	52%	101%	16%	13%	9%	30%
Alt 1c	% Change	-1%	-7%	-8%	-1%	0%	0%	0%	52%	97%	14%	11%	9%	29%
Alt 8a	% Change	-2%	-7%	-8%	-1%	0%	0%	0%	52%	98%	16%	13%	9%	29%
Alt 10a	% Change	-2%	-7%	-8%	-1%	0%	0%	0%	52%	99%	15%	13%	9%	30%
Alt 13a	% Change	-1%	-7%	-8%	-1%	0%	0%	0%	52%	99%	15%	13%	9%	30%

Table H-1.29. Below Denver Water's Diversion from Fraser River (cfs)

Flow Change and % Change are based on comparisons to Current Conditions														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		1.3	1.9	2.2	2.3	2.3	2.3	1.8	6.4	42.2	15.7	5.6	3.5	7.3
Full Use	Flow	1.3	1.8	2.2	2.3	2.3	2.2	1.8	6.1	38.0	13.9	5.3	3.4	6.7
No Act	Flow	1.3	1.8	2.2	2.4	2.3	2.2	1.8	4.7	33.5	13.7	5.4	3.4	6.2
Alt 1a	Flow	1.3	1.8	2.1	2.3	2.3	2.2	1.8	2.0	20.7	11.6	5.4	3.4	4.7
Alt 1c	Flow	1.3	1.8	2.1	2.3	2.3	2.2	1.8	2.0	21.0	11.5	5.4	3.4	4.8
Alt 8a	Flow	1.3	1.8	2.1	2.3	2.3	2.2	1.8	2.0	21.6	12.1	5.4	3.4	4.9
Alt 10a	Flow	1.3	1.8	2.1	2.3	2.3	2.2	1.8	2.0	21.6	12.1	5.4	3.4	4.8
Alt 13a	Flow	1.3	1.8	2.1	2.3	2.3	2.2	1.8	2.0	20.9	11.8	5.4	3.4	4.8
		Flow change from Current Conditions												
Full Use	Flow Change	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	-0.3	-4.2	-1.8	-0.3	-0.1	-0.6
No Act	Flow Change	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	-1.7	-8.7	-2.0	-0.3	-0.1	-1.1
Alt 1a	Flow Change	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	-4.4	-21.5	-4.1	-0.3	-0.1	-2.6
Alt 1c	Flow Change	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	-4.4	-21.2	-4.2	-0.2	-0.1	-2.5
Alt 8a	Flow Change	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	-4.4	-20.6	-3.7	-0.3	-0.1	-2.4
Alt 10a	Flow Change	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	-4.4	-20.6	-3.6	-0.3	-0.1	-2.4
Alt 13a	Flow Change	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	-4.4	-21.3	-3.9	-0.3	-0.1	-2.5
		Percent change in flow from Current Conditions												
Full Use	% Change	-3%	-4%	-2%	1%	1%	0%	1%	-4%	-10%	-12%	-5%	-3%	-8%
No Act	% Change	-3%	-4%	-2%	2%	1%	0%	0%	-26%	-21%	-13%	-5%	-3%	-15%
Alt 1a	% Change	-4%	-4%	-4%	-2%	-1%	-1%	1%	-69%	-51%	-26%	-5%	-3%	-35%
Alt 1c	% Change	-4%	-4%	-4%	-2%	-1%	-1%	1%	-69%	-50%	-27%	-4%	-3%	-35%
Alt 8a	% Change	-4%	-4%	-4%	-2%	-1%	-1%	1%	-69%	-49%	-23%	-5%	-3%	-34%
Alt 10a	% Change	-4%	-4%	-4%	-2%	-1%	-1%	1%	-69%	-49%	-23%	-5%	-3%	-34%
Alt 13a	% Change	-4%	-4%	-4%	-2%	-1%	-1%	1%	-69%	-50%	-25%	-5%	-3%	-35%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Conditions		1.6	1.9	2.3	2.4	2.3	2.3	1.7	2.2	8.7	6.8	4.9	3.2	3.4
Full Use	Flow	1.6	1.9	2.3	2.4	2.4	2.3	1.7	2.2	7.1	5.2	3.9	2.7	3.0
No Act	Flow	1.6	1.9	2.3	2.4	2.4	2.3	1.7	2.2	7.1	5.2	3.9	2.7	3.0
Alt 1a	Flow	1.6	1.9	2.3	2.4	2.4	2.3	1.7	2.2	7.1	5.2	3.9	2.7	3.0
Alt 1c	Flow	1.6	1.9	2.3	2.4	2.4	2.3	1.7	2.2	7.1	5.2	3.9	2.7	3.0
Alt 8a	Flow	1.6	1.9	2.3	2.4	2.4	2.3	1.7	2.2	7.1	5.2	3.9	2.7	3.0
Alt 10a	Flow	1.6	1.9	2.3	2.4	2.4	2.3	1.7	2.2	7.1	5.2	3.9	2.7	3.0
Alt 13a	Flow	1.6	1.9	2.3	2.4	2.4	2.3	1.7	2.2	7.1	5.2	3.9	2.7	3.0
		Flow change from Current Conditions												
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	-1.6	-1.6	-1.0	-0.5	-0.4
No Act	Flow Change	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	-1.6	-1.6	-1.0	-0.5	-0.4
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	-1.6	-1.6	-1.0	-0.5	-0.4
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	-1.6	-1.6	-1.0	-0.5	-0.4
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	-1.6	-1.6	-1.0	-0.5	-0.4
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	-1.6	-1.6	-1.0	-0.5	-0.4
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	-1.6	-1.6	-1.0	-0.5	-0.4
		Percent change in flow from Current Conditions												
Full Use	% Change	2%	1%	1%	2%	3%	1%	1%	0%	-18%	-23%	-21%	-15%	-11%
No Act	% Change	2%	1%	1%	2%	3%	1%	1%	0%	-18%	-23%	-21%	-15%	-11%
Alt 1a	% Change	2%	1%	1%	2%	3%	1%	1%	0%	-18%	-23%	-21%	-15%	-11%
Alt 1c	% Change	2%	1%	1%	2%	3%	1%	1%	0%	-18%	-23%	-21%	-15%	-11%
Alt 8a	% Change	2%	1%	1%	2%	3%	1%	1%	0%	-18%	-23%	-21%	-15%	-11%
Alt 10a	% Change	2%	1%	1%	2%	3%	1%	1%	0%	-18%	-23%	-21%	-15%	-11%
Alt 13a	% Change	2%	1%	1%	2%	3%	1%	1%	0%	-18%	-23%	-21%	-15%	-11%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Conditions		0.9	2.0	2.1	2.2	2.4	2.6	1.9	15.4	95.2	39.7	4.9	3.5	14.4
Full Use	Flow	0.9	2.0	2.1	2.2	2.4	2.6	1.9	13.4	89.7	34.4	4.5	3.5	13.3
No Act	Flow	0.9	2.0	2.1	2.2	2.4	2.6	1.9	11.6	84.6	33.1	4.5	3.5	12.6
Alt 1a	Flow	0.9	2.0	2.1	2.2	2.4	2.6	1.9	4.5	63.7	33.6	4.7	3.5	10.4
Alt 1c	Flow	0.9	2.0	2.1	2.2	2.4	2.6	1.9	4.5	65.0	33.3	5.0	3.5	10.5
Alt 8a	Flow	0.9	2.0	2.1	2.2	2.4	2.6	1.9	4.5	63.7	33.5	4.7	3.5	10.3
Alt 10a	Flow	0.9	2.0	2.1	2.2	2.4	2.6	1.9	4.5	63.7	33.5	4.7	3.5	10.3
Alt 13a	Flow	0.9	2.0	2.1	2.2	2.4	2.6	1.9	4.5	63.6	33.5	4.7	3.5	10.3
		Flow change from Current Conditions												
Full Use	Flow Change	0.0	0.0	0.0	0.1	0.0	0.0	0.0	-2.0	-5.5	-5.3	-0.4	0.0	-1.1
No Act	Flow Change	0.0	0.0	0.0	0.1	0.0	0.0	0.0	-3.8	-10.6	-6.5	-0.4	0.0	-1.8
Alt 1a	Flow Change	0.0	0.0	0.0	0.1	0.0	0.0	0.0	-10.9	-31.5	-6.0	-0.2	0.0	-4.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.1	0.0	0.0	0.0	-10.9	-30.2	-6.3	0.1	0.0	-3.9
Alt 8a	Flow Change	0.0	0.0	0.0	0.1	0.0	0.0	0.0	-10.9	-31.5	-6.2	-0.2	0.0	-4.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.1	0.0	0.0	0.0	-10.9	-31.5	-6.2	-0.2	0.0	-4.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.1	0.0	0.0	0.0	-10.9	-31.6	-6.2	-0.2	0.0	-4.1
		Percent change in flow from Current Conditions												
Full Use	% Change	1%	0%	1%	4%	0%	1%	1%	-13%	-6%	-13%	-7%	1%	-8%
No Act	% Change	1%	0%	1%	4%	0%	1%	1%	-25%	-11%	-16%	-7%	1%	-12%
Alt 1a	% Change	1%	0%	0%	4%	0%	1%	1%	-71%	-33%	-15%	-4%	1%	-28%
Alt 1c	% Change	1%	0%	0%	4%	0%	1%	1%	-71%	-32%	-16%	3%	1%	-27%
Alt 8a	% Change	1%	0%	0%	3%	0%	1%	1%	-71%	-33%	-16%	-4%	1%	-28%
Alt 10a	% Change	1%	0%	0%	3%	0%	1%	1%	-71%	-33%	-16%	-4%	1%	-28%
Alt 13a	% Change	1%	0%	0%	3%	0%	1%	1%	-71%	-33%	-16%	-4%	1%	-28%

Table H-1.30. Below Denver Water's Diversion from Jim Creek (cfs)

Flow Change and % Change are based on comparisons to Current Conditions														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		0.0	0.0	0.1	0.1	0.1	0.1	0.0	1.7	10.2	1.4	0.0	0.0	1.1
Full Use	Flow	0.0	0.0	0.1	0.1	0.1	0.1	0.0	1.7	8.7	1.3	0.0	0.0	1.0
No Act	Flow	0.0	0.0	0.1	0.1	0.1	0.1	0.0	1.1	7.2	1.2	0.0	0.0	0.8
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.7	1.0	0.0	0.0	0.5
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	5.1	1.0	0.0	0.0	0.5
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.9	1.0	0.0	0.0	0.5
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.9	1.0	0.0	0.0	0.5
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.8	1.0	0.0	0.0	0.5
		Flow change from Current Conditions												
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-1.5	0.0	0.0	0.0	-0.1
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.6	-3.0	-0.2	0.0	0.0	-0.3
Alt 1a	Flow Change	0.0	0.0	-0.1	-0.1	-0.1	0.0	0.0	-1.6	-5.5	-0.4	0.0	0.0	-0.7
Alt 1c	Flow Change	0.0	0.0	-0.1	-0.1	-0.1	0.0	0.0	-1.6	-5.1	-0.3	0.0	0.0	-0.6
Alt 8a	Flow Change	0.0	0.0	-0.1	-0.1	-0.1	0.0	0.0	-1.6	-5.3	-0.4	0.0	0.0	-0.6
Alt 10a	Flow Change	0.0	0.0	-0.1	-0.1	-0.1	0.0	0.0	-1.6	-5.3	-0.4	0.0	0.0	-0.6
Alt 13a	Flow Change	0.0	0.0	-0.1	-0.1	-0.1	0.0	0.0	-1.6	-5.4	-0.3	0.0	0.0	-0.6
		Percent change in flow from Current Conditions												
Full Use	% Change	-71%	-40%	-29%	-31%	3%	-2%	50%	-4%	-14%	-4%	-68%	4%	-12%
No Act	% Change	-75%	-40%	-24%	2%	3%	-2%	50%	-34%	-29%	-13%	-68%	4%	-28%
Alt 1a	% Change	-100%	-40%	-76%	-92%	-79%	-86%	50%	-93%	-54%	-28%	-68%	4%	-57%
Alt 1c	% Change	-100%	-40%	-76%	-92%	-79%	-86%	50%	-92%	-50%	-23%	97%	4%	-54%
Alt 8a	% Change	-100%	-40%	-76%	-92%	-79%	-86%	50%	-93%	-52%	-27%	-68%	4%	-56%
Alt 10a	% Change	-100%	-40%	-76%	-92%	-79%	-86%	50%	-93%	-52%	-27%	-68%	4%	-56%
Alt 13a	% Change	-100%	-40%	-76%	-92%	-79%	-86%	50%	-93%	-53%	-24%	-68%	4%	-56%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Conditions		0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Full Use	Flow	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
No Act	Flow	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Alt 1a	Flow	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Alt 1c	Flow	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Alt 8a	Flow	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Alt 10a	Flow	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Alt 13a	Flow	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
		Flow change from Current Conditions												
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Percent change in flow from Current Conditions												
Full Use	% Change	0%	64%	12%	7%	8%	11%	0%	0%	0%	0%	0%	1%	6%
No Act	% Change	0%	64%	12%	7%	8%	11%	0%	0%	0%	0%	0%	1%	6%
Alt 1a	% Change	0%	64%	12%	7%	8%	11%	0%	0%	0%	0%	0%	1%	6%
Alt 1c	% Change	0%	64%	12%	7%	8%	11%	0%	0%	0%	0%	0%	1%	6%
Alt 8a	% Change	0%	64%	12%	7%	8%	11%	0%	0%	0%	0%	0%	1%	6%
Alt 10a	% Change	0%	64%	13%	7%	8%	11%	0%	0%	0%	0%	0%	1%	6%
Alt 13a	% Change	0%	64%	12%	7%	8%	11%	0%	0%	0%	0%	0%	1%	6%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Conditions		0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	30.6	7.6	0.1	0.0	3.6
Full Use	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	27.4	7.1	0.0	0.0	3.3
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	24.1	6.9	0.0	0.0	2.9
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	19.9	6.6	0.0	0.0	2.3
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	20.3	6.9	0.2	0.0	2.4
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	20.2	6.6	0.0	0.0	2.3
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	20.2	6.6	0.0	0.0	2.3
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	20.3	6.6	0.0	0.0	2.3
		Flow change from Current Conditions												
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.6	-3.2	-0.5	-0.1	0.0	-0.4
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.5	-6.5	-0.7	-0.1	0.0	-0.7
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-4.5	-10.7	-1.1	-0.1	0.0	-1.4
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-4.3	-10.3	-0.7	0.1	0.0	-1.3
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-4.5	-10.4	-1.0	-0.1	0.0	-1.3
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-4.5	-10.4	-1.0	-0.1	0.0	-1.3
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-4.5	-10.2	-1.0	-0.1	0.0	-1.3
		Percent change in flow from Current Conditions												
Full Use	% Change	0%	0%	0%	0%	0%	-45%	0%	-10%	-11%	-7%	-100%	0%	-10%
No Act	% Change	0%	0%	0%	0%	0%	-45%	0%	-27%	-21%	-9%	-100%	0%	-20%
Alt 1a	% Change	0%	0%	0%	0%	0%	-45%	0%	-79%	-35%	-14%	-100%	0%	-37%
Alt 1c	% Change	0%	0%	0%	0%	0%	-45%	0%	-77%	-34%	-9%	162%	0%	-35%
Alt 8a	% Change	0%	0%	0%	0%	0%	-45%	0%	-79%	-34%	-13%	-100%	0%	-36%
Alt 10a	% Change	0%	0%	0%	0%	0%	-45%	0%	-79%	-34%	-13%	-100%	0%	-36%
Alt 13a	% Change	0%	0%	0%	0%	0%	-45%	0%	-79%	-33%	-14%	-100%	0%	-36%

Table H-1.31. Below Denver Water's Diversions from Cub and Buck Creeks (cfs)

Flow Change and % Change are based on comparisons to Current Conditions														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.4	2.3	0.4	0.2	0.3	0.4
Full Use	Flow	0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.4	2.0	0.3	0.2	0.3	0.4
No Act	Flow	0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.3	1.7	0.3	0.2	0.3	0.4
Alt 1a	Flow	0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.0	0.9	0.2	0.2	0.3	0.3
Alt 1c	Flow	0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.0	1.0	0.2	0.2	0.3	0.3
Alt 8a	Flow	0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.0	1.0	0.2	0.2	0.3	0.3
Alt 10a	Flow	0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.0	1.0	0.2	0.2	0.3	0.3
Alt 13a	Flow	0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.0	1.0	0.3	0.2	0.3	0.3
Flow change from Current Conditions														
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-0.1	0.0	0.0	0.0
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.6	-0.1	0.0	0.0	-0.1
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-1.3	-0.1	0.0	0.0	-0.1
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-1.3	-0.1	0.0	0.0	-0.1
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-1.3	-0.1	0.0	0.0	-0.1
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-1.3	-0.1	0.0	0.0	-0.1
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-1.3	-0.1	0.0	0.0	-0.1
Percent change in flow from Current Conditions														
Full Use	% Change	-2%	1%	1%	1%	1%	0%	-4%	0%	-13%	-14%	5%	1%	-7%
No Act	% Change	-2%	1%	1%	1%	1%	1%	-1%	-30%	-25%	-17%	6%	2%	-14%
Alt 1a	% Change	-2%	2%	-1%	-1%	-1%	-1%	-4%	-90%	-58%	-34%	6%	2%	-36%
Alt 1c	% Change	-2%	2%	-1%	-1%	-1%	-1%	-4%	-90%	-57%	-34%	7%	2%	-35%
Alt 8a	% Change	-2%	2%	-1%	-1%	-1%	-1%	-4%	-90%	-56%	-32%	6%	2%	-35%
Alt 10a	% Change	-2%	2%	-1%	-1%	-1%	-1%	-4%	-90%	-56%	-32%	6%	2%	-35%
Alt 13a	% Change	-2%	2%	-1%	-1%	-1%	-1%	-4%	-90%	-58%	-29%	6%	2%	-35%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Current Conditions		0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.0	0.0	0.2	0.3	0.3	0.2
Full Use	Flow	0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.0	0.0	0.2	0.3	0.3	0.2
No Act	Flow	0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.0	0.0	0.2	0.3	0.3	0.2
Alt 1a	Flow	0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.0	0.0	0.2	0.3	0.3	0.2
Alt 1c	Flow	0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.0	0.0	0.2	0.3	0.3	0.2
Alt 8a	Flow	0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.0	0.0	0.2	0.3	0.3	0.2
Alt 10a	Flow	0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.0	0.0	0.2	0.3	0.3	0.2
Alt 13a	Flow	0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.0	0.0	0.2	0.3	0.3	0.2
Flow change from Current Conditions														
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent change in flow from Current Conditions														
Full Use	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Current Conditions		0.1	0.1	0.3	0.2	0.2	0.1	0.0	1.3	7.0	1.7	0.0	0.1	0.9
Full Use	Flow	0.1	0.2	0.3	0.3	0.2	0.0	0.0	1.1	6.4	1.5	0.0	0.1	0.8
No Act	Flow	0.1	0.2	0.3	0.3	0.2	0.0	0.0	1.0	5.8	1.4	0.0	0.1	0.8
Alt 1a	Flow	0.1	0.2	0.3	0.3	0.2	0.0	0.0	0.3	4.4	1.5	0.0	0.1	0.6
Alt 1c	Flow	0.1	0.2	0.3	0.3	0.2	0.0	0.0	0.3	4.5	1.4	0.0	0.1	0.6
Alt 8a	Flow	0.1	0.2	0.3	0.3	0.2	0.0	0.0	0.3	4.5	1.5	0.0	0.1	0.6
Alt 10a	Flow	0.1	0.2	0.3	0.3	0.2	0.0	0.0	0.3	4.5	1.5	0.0	0.1	0.6
Alt 13a	Flow	0.1	0.2	0.3	0.3	0.2	0.0	0.0	0.3	4.5	1.5	0.0	0.1	0.6
Flow change from Current Conditions														
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.6	-0.2	0.0	0.0	-0.1
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-1.2	-0.2	0.0	0.0	-0.1
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.0	-2.6	-0.2	0.0	0.0	-0.3
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.0	-2.5	-0.2	0.0	0.0	-0.3
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.0	-2.5	-0.2	0.0	0.0	-0.3
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.0	-2.5	-0.2	0.0	0.0	-0.3
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.0	-2.5	-0.2	0.0	0.0	-0.3
Percent change in flow from Current Conditions														
Full Use	% Change	0%	30%	7%	7%	3%	-40%	-9%	-11%	-9%	-12%	-36%	1%	-8%
No Act	% Change	0%	30%	7%	7%	3%	-40%	-9%	-23%	-17%	-13%	-36%	1%	-15%
Alt 1a	% Change	0%	34%	9%	7%	3%	-40%	-9%	-75%	-37%	-11%	-36%	1%	-33%
Alt 1c	% Change	0%	34%	9%	7%	3%	-40%	-9%	-75%	-36%	-14%	70%	1%	-33%
Alt 8a	% Change	0%	34%	9%	8%	3%	-40%	-9%	-75%	-35%	-11%	-36%	1%	-32%
Alt 10a	% Change	0%	34%	9%	8%	3%	-40%	-9%	-75%	-35%	-11%	-36%	1%	-32%
Alt 13a	% Change	0%	34%	9%	8%	3%	-40%	-9%	-75%	-35%	-11%	-36%	1%	-32%

Table H-1.32. Below Denver Water's Diversion from Cooper Creek (cfs)

Flow Change and % Change are based on comparisons to Current Conditions														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		0.0	0.0	0.0	0.1	0.2	0.2	0.1	0.1	0.5	0.1	0.1	0.2	0.1
Full Use	Flow	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.4	0.0	0.1	0.2	0.1
No Act	Flow	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.3	0.0	0.1	0.2	0.1
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.0	0.1	0.0	0.1	0.2	0.1
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.0	0.1	0.0	0.1	0.2	0.1
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.0	0.1	0.0	0.1	0.2	0.1
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.0	0.1	0.0	0.1	0.2	0.1
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.0	0.1	0.0	0.1	0.2	0.1
		Flow change from Current Conditions												
Full Use	Flow Change	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0
No Act	Flow Change	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	-0.2	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	-0.1	-0.4	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	-0.1	-0.4	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	-0.1	-0.3	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	-0.1	-0.3	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	-0.1	-0.4	0.0	0.0	0.0	0.0
		Percent change in flow from Current Conditions												
Full Use	% Change	-92%	-100%	-100%	-91%	-26%	4%	-5%	-4%	-18%	-18%	5%	2%	-15%
No Act	% Change	-92%	-100%	-100%	-91%	-26%	4%	-1%	-39%	-31%	-16%	6%	3%	-22%
Alt 1a	% Change	-92%	-100%	-100%	-91%	-27%	2%	-5%	-98%	-73%	-27%	6%	3%	-42%
Alt 1c	% Change	-92%	-100%	-100%	-91%	-27%	2%	-5%	-98%	-73%	-31%	8%	3%	-42%
Alt 8a	% Change	-92%	-100%	-100%	-91%	-27%	2%	-5%	-98%	-70%	-24%	6%	3%	-41%
Alt 10a	% Change	-92%	-100%	-100%	-91%	-27%	2%	-5%	-98%	-70%	-22%	6%	3%	-41%
Alt 13a	% Change	-92%	-100%	-100%	-91%	-27%	2%	-5%	-98%	-72%	-20%	6%	3%	-41%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Conditions		0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.1	0.2	0.2	0.1
Full Use	Flow	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.1	0.2	0.2	0.1
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.1	0.2	0.2	0.1
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.1	0.2	0.2	0.1
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.1	0.2	0.2	0.1
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.1	0.2	0.2	0.1
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.1	0.2	0.2	0.1
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.1	0.2	0.2	0.1
		Flow change from Current Conditions												
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Percent change in flow from Current Conditions												
Full Use	% Change	-80%	0%	0%	-100%	-51%	0%	2%	0%	0%	4%	3%	0%	-9%
No Act	% Change	-80%	0%	0%	-100%	-51%	0%	2%	0%	0%	4%	3%	0%	-9%
Alt 1a	% Change	-80%	0%	0%	-100%	-51%	0%	2%	0%	0%	4%	3%	0%	-9%
Alt 1c	% Change	-80%	0%	0%	-100%	-51%	0%	2%	0%	0%	4%	3%	0%	-9%
Alt 8a	% Change	-80%	0%	0%	-100%	-51%	0%	2%	0%	0%	4%	3%	0%	-9%
Alt 10a	% Change	-80%	0%	0%	-100%	-51%	0%	2%	0%	0%	4%	3%	0%	-9%
Alt 13a	% Change	-80%	0%	0%	-100%	-51%	0%	2%	0%	0%	4%	3%	0%	-9%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Conditions		0.0	0.0	0.0	0.1	0.3	0.0	0.0	0.0	1.1	0.1	0.0	0.0	0.1
Full Use	Flow	0.0	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.1
No Act	Flow	0.0	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.1
Alt 1a	Flow	0.0	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.1
Alt 1c	Flow	0.0	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.1
Alt 8a	Flow	0.0	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.1
Alt 10a	Flow	0.0	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.1
Alt 13a	Flow	0.0	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.1
		Flow change from Current Conditions												
Full Use	Flow Change	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	-0.3	0.0	0.0	0.0	0.0
No Act	Flow Change	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	-0.5	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	-0.8	0.0	0.0	0.0	-0.1
Alt 1c	Flow Change	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	-0.8	0.0	0.0	0.0	-0.1
Alt 8a	Flow Change	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	-0.8	0.0	0.0	0.0	-0.1
Alt 10a	Flow Change	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	-0.8	0.0	0.0	0.0	-0.1
Alt 13a	Flow Change	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	-0.8	0.0	0.0	0.0	-0.1
		Percent change in flow from Current Conditions												
Full Use	% Change	-75%	0%	0%	-57%	1%	-3%	-3%	-21%	-26%	-64%	-43%	1%	-24%
No Act	% Change	-75%	0%	0%	-57%	1%	-3%	-3%	-34%	-41%	-64%	-43%	1%	-34%
Alt 1a	% Change	-75%	0%	0%	-56%	1%	-3%	-3%	-77%	-70%	-16%	-43%	1%	-52%
Alt 1c	% Change	-75%	0%	0%	-56%	1%	-3%	-3%	-77%	-69%	-66%	150%	1%	-52%
Alt 8a	% Change	-75%	0%	0%	-56%	1%	-3%	-3%	-77%	-68%	-16%	-43%	1%	-51%
Alt 10a	% Change	-75%	0%	0%	-56%	1%	-3%	-3%	-77%	-68%	-16%	-43%	1%	-51%
Alt 13a	% Change	-75%	0%	0%	-56%	1%	-3%	-3%	-77%	-68%	-16%	-43%	1%	-51%

Table H-1.33. Fraser River near Winter Park Gage (cfs)

Flow Change and % Change are based on comparisons to Current Conditions

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		4.1	4.0	4.1	4.1	4.0	3.9	4.1	17.0	58.8	20.6	9.8	6.9	11.8
Full Use	Flow	4.1	3.9	4.0	4.0	4.0	3.9	4.0	16.6	52.7	18.6	9.6	6.8	11.0
No Act	Flow	4.1	3.9	4.0	4.1	4.0	3.9	4.0	14.6	46.4	18.3	9.6	6.8	10.3
Alt 1a	Flow	4.0	3.9	3.9	3.8	3.8	3.8	4.0	10.5	30.2	15.9	9.6	6.8	8.4
Alt 1c	Flow	4.0	3.9	3.9	3.8	3.8	3.8	4.0	10.5	30.9	15.8	9.6	6.8	8.4
Alt 8a	Flow	4.0	3.9	3.9	3.8	3.8	3.8	4.0	10.5	31.3	16.4	9.6	6.8	8.5
Alt 10a	Flow	4.0	3.9	3.9	3.8	3.8	3.8	4.0	10.5	31.2	16.4	9.6	6.8	8.5
Alt 13a	Flow	4.0	3.9	3.9	3.8	3.8	3.8	4.0	10.5	30.5	16.2	9.6	6.8	8.4
		Flow change from Current Conditions												
Full Use	Flow Change	-0.1	-0.1	-0.1	-0.1	0.0	0.0	0.0	-0.3	-6.1	-2.0	-0.3	-0.1	-0.8
No Act	Flow Change	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	-2.4	-12.4	-2.3	-0.3	-0.1	-1.5
Alt 1a	Flow Change	-0.1	-0.1	-0.2	-0.3	-0.2	-0.1	0.0	-6.5	-28.7	-4.7	-0.3	-0.1	-3.4
Alt 1c	Flow Change	-0.1	-0.1	-0.2	-0.3	-0.2	-0.1	0.0	-6.4	-28.0	-4.8	-0.2	-0.1	-3.4
Alt 8a	Flow Change	-0.1	-0.1	-0.2	-0.3	-0.2	-0.1	0.0	-6.5	-27.6	-4.2	-0.3	-0.1	-3.3
Alt 10a	Flow Change	-0.1	-0.1	-0.2	-0.3	-0.2	-0.1	0.0	-6.5	-27.6	-4.2	-0.3	-0.1	-3.3
Alt 13a	Flow Change	-0.1	-0.1	-0.2	-0.3	-0.2	-0.1	0.0	-6.5	-28.4	-4.4	-0.3	-0.1	-3.4
		Percent change in flow from Current Conditions												
Full Use	% Change	-2%	-3%	-3%	-3%	-1%	-1%	0%	-2%	-10%	-10%	-3%	-2%	-7%
No Act	% Change	-2%	-3%	-3%	-1%	-1%	-1%	0%	-14%	-21%	-11%	-3%	-2%	-13%
Alt 1a	% Change	-2%	-3%	-6%	-6%	-5%	-3%	0%	-38%	-49%	-23%	-3%	-2%	-29%
Alt 1c	% Change	-2%	-3%	-6%	-6%	-5%	-3%	0%	-38%	-48%	-23%	-2%	-2%	-29%
Alt 8a	% Change	-2%	-3%	-6%	-6%	-5%	-3%	0%	-38%	-47%	-20%	-3%	-2%	-28%
Alt 10a	% Change	-2%	-3%	-6%	-6%	-5%	-3%	0%	-38%	-47%	-20%	-3%	-2%	-28%
Alt 13a	% Change	-2%	-3%	-6%	-6%	-5%	-3%	0%	-38%	-48%	-21%	-3%	-2%	-29%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Conditions		3.9	4.0	3.8	3.8	3.8	3.8	4.1	8.2	9.5	9.4	8.9	6.2	5.8
Full Use	Flow	3.9	4.0	3.8	3.8	3.8	3.8	4.1	8.2	7.9	7.8	7.9	5.7	5.4
No Act	Flow	3.9	4.0	3.8	3.8	3.8	3.8	4.1	8.2	7.9	7.8	7.9	5.7	5.4
Alt 1a	Flow	3.9	4.0	3.8	3.8	3.8	3.8	4.1	8.2	7.9	7.8	7.9	5.7	5.4
Alt 1c	Flow	3.9	4.0	3.8	3.8	3.8	3.8	4.1	8.2	7.9	7.8	7.9	5.7	5.4
Alt 8a	Flow	3.9	4.0	3.8	3.8	3.8	3.8	4.1	8.2	7.9	7.8	7.9	5.7	5.4
Alt 10a	Flow	3.9	4.0	3.8	3.8	3.8	3.8	4.1	8.2	7.9	7.8	7.9	5.7	5.4
Alt 13a	Flow	3.9	4.0	3.8	3.8	3.8	3.8	4.1	8.2	7.9	7.8	7.9	5.7	5.4
		Flow change from Current Conditions												
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.6	-1.6	-1.0	-0.5	-0.4
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.6	-1.6	-1.0	-0.5	-0.4
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.6	-1.6	-1.0	-0.5	-0.4
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.6	-1.6	-1.0	-0.5	-0.4
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.6	-1.6	-1.0	-0.5	-0.4
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.6	-1.6	-1.0	-0.5	-0.4
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.6	-1.6	-1.0	-0.5	-0.4
		Percent change in flow from Current Conditions												
Full Use	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-17%	-17%	-12%	-9%	-7%
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-17%	-17%	-12%	-9%	-7%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-17%	-17%	-12%	-9%	-7%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-17%	-17%	-12%	-9%	-7%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-17%	-17%	-12%	-9%	-7%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-17%	-17%	-12%	-9%	-7%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-17%	-17%	-12%	-9%	-7%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Conditions		4.6	4.3	4.5	4.1	4.1	4.1	4.4	32.3	138.7	54.7	10.6	7.1	22.8
Full Use	Flow	4.5	4.3	4.5	4.1	4.1	4.0	4.4	29.5	129.1	48.6	10.2	7.1	21.2
No Act	Flow	4.5	4.3	4.5	4.1	4.1	4.0	4.4	26.6	120.0	47.2	10.2	7.1	20.1
Alt 1a	Flow	4.5	4.3	4.5	4.1	4.1	4.0	4.4	16.0	93.2	47.4	10.4	7.1	17.0
Alt 1c	Flow	4.5	4.3	4.5	4.1	4.1	4.0	4.4	16.1	94.9	47.3	10.9	7.1	17.2
Alt 8a	Flow	4.5	4.3	4.5	4.1	4.1	4.0	4.4	16.0	93.6	47.3	10.4	7.1	17.0
Alt 10a	Flow	4.5	4.3	4.5	4.1	4.1	4.0	4.4	16.0	93.6	47.3	10.4	7.1	17.0
Alt 13a	Flow	4.5	4.3	4.5	4.1	4.1	4.0	4.4	16.0	93.6	47.2	10.4	7.1	17.0
		Flow change from Current Conditions												
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-2.8	-9.6	-6.1	-0.4	0.0	-1.6
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-5.7	-18.7	-7.5	-0.4	0.0	-2.7
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-16.3	-45.5	-7.3	-0.3	0.0	-5.8
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-16.2	-43.8	-7.4	0.3	0.0	-5.6
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-16.3	-45.2	-7.4	-0.3	0.0	-5.8
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-16.3	-45.1	-7.4	-0.3	0.0	-5.8
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-16.3	-45.1	-7.5	-0.3	0.0	-5.8
		Percent change in flow from Current Conditions												
Full Use	% Change	0%	0%	0%	0%	0%	-1%	0%	-9%	-7%	-11%	-4%	0%	-7%
No Act	% Change	0%	0%	0%	0%	0%	-1%	0%	-18%	-14%	-14%	-4%	0%	-12%
Alt 1a	% Change	0%	0%	0%	0%	0%	-1%	0%	-51%	-33%	-13%	-3%	0%	-25%
Alt 1c	% Change	0%	0%	0%	0%	0%	-1%	0%	-50%	-32%	-13%	3%	0%	-25%
Alt 8a	% Change	0%	0%	0%	0%	0%	-1%	0%	-51%	-33%	-14%	-3%	0%	-25%
Alt 10a	% Change	0%	0%	0%	0%	0%	-1%	0%	-51%	-33%	-14%	-2%	0%	-25%
Alt 13a	% Change	0%	0%	0%	0%	0%	-1%	0%	-51%	-33%	-14%	-3%	0%	-25%

Table H-1.34. Vasquez Creek below the Gumlick Tunnel (cfs)

Flow Change and % Change are based on comparisons to Current Conditions														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		9.6	6.8	5.0	3.9	3.3	3.3	6.3	40.9	85.0	40.9	25.6	14.5	20.4
Full Use	Flow	9.8	6.9	5.1	4.0	3.3	3.3	6.3	41.4	85.4	52.9	26.3	14.8	21.6
No Act	Flow	9.9	6.9	5.2	3.9	3.3	3.3	6.3	42.5	88.6	54.9	26.7	14.9	22.2
Alt 1a	Flow	10.1	7.2	5.3	4.1	3.5	3.4	6.3	44.9	103.4	60.7	27.6	14.9	24.3
Alt 1c	Flow	10.1	7.2	5.3	4.1	3.5	3.4	6.3	44.9	102.9	60.6	27.6	14.9	24.2
Alt 8a	Flow	10.1	7.2	5.3	4.1	3.5	3.4	6.3	44.9	102.2	58.4	26.5	14.9	23.9
Alt 10a	Flow	10.1	7.2	5.3	4.1	3.5	3.4	6.3	44.9	102.1	58.2	26.5	14.9	23.9
Alt 13a	Flow	10.1	7.2	5.3	4.1	3.5	3.4	6.3	44.9	102.9	59.5	27.2	14.9	24.1
		Flow change from Current Conditions												
Full Use	Flow Change	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.5	0.4	12.0	0.7	0.4	1.2
No Act	Flow Change	0.3	0.1	0.1	0.0	0.0	0.0	0.0	1.6	3.6	14.0	1.1	0.4	1.8
Alt 1a	Flow Change	0.5	0.4	0.2	0.2	0.2	0.1	0.0	4.0	18.3	19.8	2.0	0.5	3.8
Alt 1c	Flow Change	0.5	0.4	0.2	0.2	0.2	0.1	0.0	4.0	17.9	19.6	2.0	0.5	3.8
Alt 8a	Flow Change	0.5	0.4	0.2	0.2	0.2	0.1	0.0	4.0	17.2	17.4	0.9	0.5	3.5
Alt 10a	Flow Change	0.5	0.4	0.2	0.2	0.2	0.1	0.0	4.0	17.1	17.3	0.9	0.5	3.4
Alt 13a	Flow Change	0.5	0.4	0.2	0.2	0.2	0.1	0.0	4.0	17.9	18.6	1.6	0.5	3.7
		Percent change in flow from Current Conditions												
Full Use	% Change	2%	2%	2%	1%	0%	0%	0%	1%	0%	29%	3%	3%	6%
No Act	% Change	3%	2%	3%	0%	0%	0%	0%	4%	4%	34%	4%	3%	9%
Alt 1a	% Change	5%	6%	5%	5%	5%	2%	0%	10%	22%	48%	8%	3%	19%
Alt 1c	% Change	5%	6%	5%	5%	5%	2%	0%	10%	21%	48%	8%	3%	19%
Alt 8a	% Change	5%	6%	5%	5%	5%	2%	0%	10%	20%	43%	4%	3%	17%
Alt 10a	% Change	5%	6%	5%	5%	5%	2%	0%	10%	20%	42%	4%	3%	17%
Alt 13a	% Change	5%	6%	5%	5%	5%	2%	0%	10%	21%	45%	6%	3%	18%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Conditions		9.7	6.7	4.7	3.4	2.9	2.8	6.3	41.8	85.4	16.3	18.4	11.2	17.5
Full Use	Flow	9.7	6.7	4.7	3.4	2.9	2.8	6.3	41.8	88.4	33.0	19.3	11.5	19.2
No Act	Flow	9.7	6.7	4.7	3.4	2.9	2.8	6.3	41.8	88.4	33.0	19.3	11.5	19.2
Alt 1a	Flow	9.7	6.7	4.7	3.4	2.9	2.8	6.3	41.8	88.4	33.0	19.3	11.5	19.2
Alt 1c	Flow	9.7	6.7	4.7	3.4	2.9	2.8	6.3	41.8	88.4	33.0	19.3	11.5	19.2
Alt 8a	Flow	9.7	6.7	4.7	3.4	2.9	2.8	6.3	41.8	88.4	33.0	19.3	11.5	19.2
Alt 10a	Flow	9.7	6.7	4.7	3.4	2.9	2.8	6.3	41.8	88.4	33.0	19.3	11.5	19.2
Alt 13a	Flow	9.7	6.7	4.7	3.4	2.9	2.8	6.3	41.8	88.4	33.0	19.3	11.5	19.2
		Flow change from Current Conditions												
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	16.7	0.9	0.3	1.7
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	16.7	0.9	0.3	1.7
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	16.7	0.9	0.3	1.7
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	16.7	0.9	0.3	1.7
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	16.7	0.9	0.3	1.7
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	16.7	0.9	0.3	1.7
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	16.7	0.9	0.3	1.7
		Percent change in flow from Current Conditions												
Full Use	% Change	0%	0%	0%	0%	0%	0%	0%	0%	4%	103%	5%	3%	10%
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	4%	103%	5%	3%	10%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	4%	103%	5%	3%	10%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	4%	103%	5%	3%	10%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	4%	103%	5%	3%	10%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	4%	103%	5%	3%	10%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	4%	103%	5%	3%	10%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Conditions		14.1	8.4	6.1	5.0	4.4	4.2	7.1	33.5	62.1	54.0	31.1	19.0	20.8
Full Use	Flow	14.1	8.4	6.1	5.0	4.4	4.2	7.1	40.2	62.9	56.7	32.0	20.6	21.8
No Act	Flow	14.1	8.4	6.1	5.0	4.4	4.2	7.1	40.8	63.8	58.8	34.7	21.1	22.4
Alt 1a	Flow	14.1	8.4	6.1	5.0	4.4	4.2	7.1	46.4	76.0	59.0	33.5	21.2	23.8
Alt 1c	Flow	14.1	8.4	6.1	5.0	4.4	4.2	7.1	46.4	76.0	59.0	32.9	21.2	23.7
Alt 8a	Flow	14.1	8.4	6.1	5.0	4.4	4.2	7.1	46.4	76.0	59.4	33.5	21.2	23.8
Alt 10a	Flow	14.1	8.4	6.1	5.0	4.4	4.2	7.1	46.4	76.0	59.3	33.5	21.2	23.8
Alt 13a	Flow	14.1	8.4	6.1	5.0	4.4	4.2	7.1	46.4	76.0	58.9	33.5	21.2	23.8
		Flow change from Current Conditions												
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7	0.8	2.8	0.9	1.6	1.1
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.3	1.6	4.9	3.6	2.1	1.6
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.9	13.8	5.0	2.4	2.2	3.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.9	13.8	5.1	1.8	2.2	3.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.9	13.8	5.4	2.4	2.2	3.1
Alt 10a	Flow Change	14.1	8.4	6.1	5.0	4.4	4.2	7.1	46.4	76.0	59.3	33.5	21.2	23.8
Alt 13a	Flow Change	14.1	8.4	6.1	5.0	4.4	4.2	7.1	46.4	76.0	58.9	33.5	21.2	23.8
		Percent change in flow from Current Conditions												
Full Use	% Change	0%	0%	0%	0%	0%	0%	0%	20%	1%	5%	3%	8%	5%
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	22%	3%	9%	11%	11%	8%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	38%	22%	9%	8%	11%	15%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	38%	22%	9%	6%	12%	14%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	38%	22%	10%	8%	11%	15%
Alt 10a	% Change	100%	100%	100%	100%	100%	100%	100%	138%	122%	110%	108%	111%	115%
Alt 13a	% Change	100%	100%	100%	100%	100%	100%	100%	138%	122%	109%	108%	111%	115%

Table H-1.35. Below Denver Water's Diversion from Vasquez Creek (cfs)

Flow Change and % Change are based on comparisons to Current Conditions														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		3.1	3.3	3.1	3.0	2.9	2.7	2.8	11.3	56.7	26.3	10.9	5.4	10.9
Full Use	Flow	3.3	3.2	3.3	2.9	2.9	2.7	2.8	10.7	53.5	24.2	9.5	5.6	10.4
No Act	Flow	3.2	3.1	3.3	3.0	2.9	2.7	2.8	9.4	48.9	23.6	9.2	5.5	9.8
Alt 1a	Flow	3.2	3.1	3.2	2.8	2.8	2.7	2.8	5.8	33.5	17.4	8.3	5.5	7.6
Alt 1c	Flow	3.2	3.1	3.2	2.8	2.8	2.7	2.8	5.8	34.4	17.5	8.3	5.5	7.7
Alt 8a	Flow	3.2	3.1	3.2	2.8	2.8	2.7	2.8	5.8	34.5	19.8	9.1	5.5	7.9
Alt 10a	Flow	3.2	3.1	3.2	2.8	2.8	2.7	2.8	5.8	34.5	19.8	9.1	5.5	7.9
Alt 13a	Flow	3.2	3.1	3.2	2.8	2.8	2.7	2.8	5.8	33.8	18.5	8.8	5.5	7.8
		Flow change from Current Conditions												
Full Use	Flow Change	0.2	-0.1	0.2	-0.1	0.0	0.0	0.0	-0.6	-3.1	-2.0	-1.5	0.2	-0.6
No Act	Flow Change	0.1	-0.1	0.2	0.0	0.0	0.0	0.0	-1.9	-7.8	-2.6	-1.8	0.1	-1.1
Alt 1a	Flow Change	0.1	-0.2	0.1	-0.2	-0.1	0.0	0.0	-5.4	-23.1	-8.8	-2.6	0.1	-3.3
Alt 1c	Flow Change	0.1	-0.2	0.1	-0.2	-0.1	0.0	0.0	-5.4	-22.3	-8.7	-2.6	0.1	-3.3
Alt 8a	Flow Change	0.1	-0.2	0.1	-0.2	-0.1	0.0	0.0	-5.4	-22.1	-6.5	-1.8	0.1	-3.0
Alt 10a	Flow Change	0.1	-0.2	0.1	-0.2	-0.1	0.0	0.0	-5.4	-22.1	-6.5	-1.8	0.1	-3.0
Alt 13a	Flow Change	0.1	-0.2	0.1	-0.2	-0.1	0.0	0.0	-5.4	-22.8	-7.8	-2.2	0.1	-3.2
		Percent change in flow from Current Conditions												
Full Use	% Change	6%	-2%	6%	-3%	0%	0%	0%	-5%	-6%	-8%	-13%	3%	-5%
No Act	% Change	4%	-4%	7%	0%	0%	0%	0%	-16%	-14%	-10%	-16%	2%	-10%
Alt 1a	% Change	3%	-6%	3%	-6%	-3%	-1%	0%	-48%	-41%	-34%	-24%	2%	-31%
Alt 1c	% Change	3%	-6%	3%	-6%	-3%	-1%	0%	-48%	-39%	-33%	-24%	2%	-30%
Alt 8a	% Change	3%	-6%	3%	-6%	-3%	-1%	0%	-48%	-39%	-25%	-17%	2%	-27%
Alt 10a	% Change	3%	-6%	3%	-6%	-3%	-1%	0%	-48%	-39%	-25%	-17%	2%	-27%
Alt 13a	% Change	3%	-6%	3%	-6%	-3%	-1%	0%	-48%	-40%	-30%	-20%	2%	-29%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Conditions		2.8	2.8	2.8	2.6	2.6	2.5	2.7	5.4	7.5	7.5	7.1	4.8	4.3
Full Use	Flow	3.2	3.0	3.0	2.6	2.6	2.5	2.7	5.4	6.2	6.2	6.2	4.9	4.1
No Act	Flow	3.2	3.0	3.0	2.6	2.6	2.5	2.7	5.4	6.2	6.2	6.2	4.9	4.1
Alt 1a	Flow	3.2	3.0	3.0	2.6	2.6	2.5	2.7	5.4	6.2	6.2	6.2	4.9	4.1
Alt 1c	Flow	3.2	3.0	3.0	2.6	2.6	2.5	2.7	5.4	6.2	6.2	6.2	4.9	4.1
Alt 8a	Flow	3.2	3.0	3.0	2.6	2.6	2.5	2.7	5.4	6.2	6.2	6.2	4.9	4.1
Alt 10a	Flow	3.2	3.0	3.0	2.6	2.6	2.5	2.7	5.4	6.2	6.2	6.2	4.9	4.1
Alt 13a	Flow	3.2	3.0	3.0	2.6	2.6	2.5	2.7	5.4	6.2	6.2	6.2	4.9	4.1
		Flow change from Current Conditions												
Full Use	Flow Change	0.4	0.2	0.2	0.0	0.0	0.0	0.0	0.0	-1.3	-1.3	-0.9	0.1	-0.2
No Act	Flow Change	0.4	0.2	0.2	0.0	0.0	0.0	0.0	0.0	-1.3	-1.3	-0.9	0.1	-0.2
Alt 1a	Flow Change	0.4	0.2	0.2	0.0	0.0	0.0	0.0	0.0	-1.3	-1.3	-0.9	0.1	-0.2
Alt 1c	Flow Change	0.4	0.2	0.2	0.0	0.0	0.0	0.0	0.0	-1.3	-1.3	-0.9	0.1	-0.2
Alt 8a	Flow Change	0.4	0.2	0.2	0.0	0.0	0.0	0.0	0.0	-1.3	-1.3	-0.9	0.1	-0.2
Alt 10a	Flow Change	0.4	0.2	0.2	0.0	0.0	0.0	0.0	0.0	-1.3	-1.3	-0.9	0.1	-0.2
Alt 13a	Flow Change	0.4	0.2	0.2	0.0	0.0	0.0	0.0	0.0	-1.3	-1.3	-0.9	0.1	-0.2
		Percent change in flow from Current Conditions												
Full Use	% Change	14%	6%	8%	0%	0%	0%	0%	0%	-17%	-17%	-12%	1%	-5%
No Act	% Change	14%	6%	8%	0%	0%	0%	0%	0%	-17%	-17%	-12%	1%	-5%
Alt 1a	% Change	14%	6%	8%	0%	0%	0%	0%	0%	-17%	-17%	-12%	1%	-5%
Alt 1c	% Change	14%	6%	8%	0%	0%	0%	0%	0%	-17%	-17%	-12%	1%	-5%
Alt 8a	% Change	14%	6%	8%	0%	0%	0%	0%	0%	-17%	-17%	-12%	1%	-5%
Alt 10a	% Change	14%	6%	8%	0%	0%	0%	0%	0%	-17%	-17%	-12%	1%	-5%
Alt 13a	% Change	14%	6%	8%	0%	0%	0%	0%	0%	-17%	-17%	-12%	1%	-5%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Conditions		3.0	3.0	3.0	3.0	3.0	2.8	2.9	23.9	130.1	64.5	20.2	6.1	22.1
Full Use	Flow	3.1	3.0	3.3	3.0	3.0	2.8	2.9	20.1	124.6	60.4	15.9	6.3	20.7
No Act	Flow	3.1	3.0	3.3	3.0	3.0	2.8	2.9	19.1	120.7	59.1	14.2	5.8	20.0
Alt 1a	Flow	3.1	3.0	3.3	3.0	3.0	2.8	2.9	9.1	97.9	59.8	14.2	5.7	17.3
Alt 1c	Flow	3.1	3.0	3.3	3.0	3.0	2.8	2.9	9.1	100.6	60.8	14.3	5.7	17.6
Alt 8a	Flow	3.1	3.0	3.3	3.0	3.0	2.8	2.9	9.1	98.6	59.8	14.3	5.7	17.4
Alt 10a	Flow	3.1	3.0	3.3	3.0	3.0	2.8	2.9	9.1	98.3	59.8	14.3	5.7	17.4
Alt 13a	Flow	3.1	3.0	3.3	3.0	3.0	2.8	2.9	9.1	99.0	59.1	14.3	5.7	17.4
		Flow change from Current Conditions												
Full Use	Flow Change	0.1	0.0	0.3	0.0	0.0	0.0	0.0	-3.8	-5.5	-4.0	-4.3	0.1	-1.4
No Act	Flow Change	0.1	0.0	0.3	0.0	0.0	0.0	0.0	-4.7	-9.5	-5.4	-6.0	-0.4	-2.1
Alt 1a	Flow Change	0.1	0.0	0.3	0.0	0.0	0.0	0.0	-14.7	-32.2	-4.7	-6.0	-0.4	-4.8
Alt 1c	Flow Change	0.1	0.0	0.3	0.0	0.0	0.0	0.0	-14.7	-29.5	-3.7	-5.9	-0.4	-4.5
Alt 8a	Flow Change	0.1	0.0	0.3	0.0	0.0	0.0	0.0	-14.7	-31.5	-4.7	-5.9	-0.4	-4.7
Alt 10a	Flow Change	0.1	0.0	0.3	0.0	0.0	0.0	0.0	-14.7	-31.8	-4.6	-5.9	-0.4	-4.8
Alt 13a	Flow Change	0.1	0.0	0.3	0.0	0.0	0.0	0.0	-14.7	-31.1	-5.4	-5.9	-0.4	-4.8
		Percent change in flow from Current Conditions												
Full Use	% Change	2%	2%	10%	0%	0%	0%	0%	-16%	-4%	-6%	-21%	2%	-6%
No Act	% Change	2%	2%	10%	0%	0%	0%	0%	-20%	-7%	-8%	-30%	-6%	-10%
Alt 1a	% Change	2%	2%	10%	0%	0%	0%	0%	-62%	-25%	-7%	-30%	-7%	-22%
Alt 1c	% Change	2%	2%	10%	0%	0%	0%	0%	-62%	-23%	-6%	-29%	-7%	-20%
Alt 8a	% Change	2%	2%	10%	0%	0%	0%	0%	-62%	-24%	-7%	-29%	-6%	-21%
Alt 10a	% Change	2%	2%	10%	0%	0%	0%	0%	-62%	-24%	-7%	-29%	-6%	-21%
Alt 13a	% Change	2%	2%	10%	0%	0%	0%	0%	-62%	-24%	-8%	-29%	-6%	-22%

Table H-1.36. Below Denver Water's Diversion from Little Vasquez Creek (cfs)

Flow Change and % Change are based on comparisons to Current Conditions														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		0.0	0.0	0.0	0.1	0.1	0.0	0.0	1.1	6.9	1.9	0.1	0.0	0.9
Full Use	Flow	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.8	6.3	1.4	0.0	0.0	0.7
No Act	Flow	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.5	5.4	1.4	0.0	0.0	0.6
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.8	0.0	0.0	0.3
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.8	0.0	0.0	0.3
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	1.0	0.0	0.0	0.3
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	1.1	0.0	0.0	0.3
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.9	0.0	0.0	0.3
		Flow change from Current Conditions												
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.6	-0.5	-0.1	0.0	-0.1
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.5	-1.5	-0.5	-0.1	0.0	-0.2
Alt 1a	Flow Change	0.0	0.0	0.0	-0.1	-0.1	0.0	0.0	-1.0	-4.4	-1.0	-0.1	0.0	-0.6
Alt 1c	Flow Change	0.0	0.0	0.0	-0.1	-0.1	0.0	0.0	-1.0	-4.5	-1.0	-0.1	0.0	-0.6
Alt 8a	Flow Change	0.0	0.0	0.0	-0.1	-0.1	0.0	0.0	-1.0	-4.2	-0.8	-0.1	0.0	-0.5
Alt 10a	Flow Change	0.0	0.0	0.0	-0.1	-0.1	0.0	0.0	-1.0	-4.2	-0.8	-0.1	0.0	-0.5
Alt 13a	Flow Change	0.0	0.0	0.0	-0.1	-0.1	0.0	0.0	-1.0	-4.4	-0.9	-0.1	0.0	-0.6
		Percent change in flow from Current Conditions												
Full Use	% Change	-85%	-100%	-99%	-39%	-1%	-5%	0%	-23%	-9%	-26%	-91%	240%	-15%
No Act	% Change	-81%	-100%	-99%	-7%	-1%	-5%	0%	-49%	-21%	-25%	-90%	242%	-26%
Alt 1a	% Change	-89%	-100%	-99%	-99%	-100%	-96%	0%	-98%	-64%	-54%	-96%	240%	-67%
Alt 1c	% Change	-89%	-100%	-99%	-99%	-100%	-96%	0%	-98%	-65%	-56%	-85%	242%	-68%
Alt 8a	% Change	-89%	-100%	-99%	-99%	-100%	-96%	0%	-98%	-61%	-44%	-92%	240%	-63%
Alt 10a	% Change	-89%	-100%	-99%	-99%	-100%	-96%	0%	-98%	-60%	-43%	-90%	240%	-63%
Alt 13a	% Change	-89%	-100%	-99%	-99%	-100%	-96%	0%	-98%	-63%	-51%	-96%	240%	-66%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Conditions		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0
Full Use	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.1
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.1
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.1
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.1
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.1
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.1
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.1
		Flow change from Current Conditions												
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Percent change in flow from Current Conditions												
Full Use	% Change	7183%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%
No Act	% Change	7183%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%
Alt 1a	% Change	7183%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%
Alt 1c	% Change	7183%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%
Alt 8a	% Change	7183%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%
Alt 10a	% Change	7183%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%
Alt 13a	% Change	7183%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Conditions		0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	11.4	3.6	0.5	0.0	1.4
Full Use	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	9.9	2.7	0.0	0.0	1.1
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	8.8	2.4	0.0	0.0	0.9
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	5.0	2.7	0.1	0.0	0.7
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.9	2.5	0.2	0.0	0.6
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.8	2.5	0.1	0.0	0.6
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.9	2.7	0.1	0.0	0.6
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.9	2.5	0.1	0.0	0.6
		Flow change from Current Conditions												
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.5	-1.5	-0.9	-0.4	0.0	-0.4
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.5	-2.6	-1.2	-0.5	0.0	-0.5
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.5	-6.4	-0.9	-0.4	0.0	-0.8
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.5	-6.5	-1.1	-0.2	0.0	-0.8
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.5	-6.6	-1.0	-0.4	0.0	-0.8
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.5	-6.5	-0.9	-0.4	0.0	-0.8
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.5	-6.5	-1.0	-0.4	0.0	-0.8
		Percent change in flow from Current Conditions												
Full Use	% Change	0%	0%	0%	0%	0%	-56%	0%	-95%	-13%	-25%	-93%	-79%	-26%
No Act	% Change	0%	0%	0%	0%	0%	-56%	0%	-92%	-23%	-33%	-100%	-79%	-34%
Alt 1a	% Change	0%	0%	0%	0%	0%	-56%	0%	-96%	-56%	-24%	-87%	-79%	-54%
Alt 1c	% Change	0%	0%	0%	0%	0%	-56%	0%	-96%	-57%	-30%	-54%	-79%	-55%
Alt 8a	% Change	0%	0%	0%	0%	0%	-56%	0%	-96%	-58%	-29%	-87%	-79%	-56%
Alt 10a	% Change	0%	0%	0%	0%	0%	-56%	0%	-96%	-57%	-24%	-87%	-79%	-55%
Alt 13a	% Change	0%	0%	0%	0%	0%	-56%	0%	-96%	-57%	-29%	-87%	-79%	-56%

Table H-1.37. Vasquez Creek Gage (cfs)

Flow Change and % Change are based on comparisons to Current Conditions														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		4.4	4.4	4.1	3.9	3.6	3.3	5.1	19.8	73.7	32.0	12.8	6.2	14.4
Full Use	Flow	1.4	1.2	0.8	0.7	0.5	0.3	1.2	14.8	64.9	24.2	7.7	3.1	10.1
No Act	Flow	1.3	1.2	0.8	0.8	0.5	0.3	1.2	13.2	59.4	23.6	7.4	3.0	9.4
Alt 1a	Flow	1.3	1.1	0.7	0.6	0.4	0.3	1.2	9.2	41.1	16.9	6.5	3.0	6.9
Alt 1c	Flow	1.3	1.1	0.7	0.6	0.4	0.3	1.2	9.2	41.8	16.9	6.5	3.0	6.9
Alt 8a	Flow	1.3	1.1	0.7	0.6	0.4	0.3	1.2	9.2	42.3	19.5	7.4	3.0	7.2
Alt 10a	Flow	1.3	1.1	0.7	0.6	0.4	0.3	1.2	9.2	42.3	19.5	7.4	3.0	7.2
Alt 13a	Flow	1.3	1.1	0.7	0.6	0.4	0.3	1.2	9.2	41.4	18.0	7.0	3.0	7.0
Flow change from Current Conditions														
Full Use	Flow Change	-3.0	-3.2	-3.3	-3.2	-3.1	-3.1	-3.9	-5.0	-8.8	-7.8	-5.1	-3.1	-4.4
No Act	Flow Change	-3.1	-3.2	-3.3	-3.1	-3.1	-3.1	-3.9	-6.6	-14.3	-8.4	-5.4	-3.2	-5.0
Alt 1a	Flow Change	-3.1	-3.3	-3.4	-3.4	-3.2	-3.1	-3.9	-10.6	-32.6	-15.1	-6.3	-3.2	-7.6
Alt 1c	Flow Change	-3.1	-3.3	-3.4	-3.4	-3.2	-3.1	-3.9	-10.6	-31.9	-15.1	-6.3	-3.2	-7.5
Alt 8a	Flow Change	-3.1	-3.3	-3.4	-3.4	-3.2	-3.1	-3.9	-10.6	-31.4	-12.6	-5.5	-3.2	-7.2
Alt 10a	Flow Change	-3.1	-3.3	-3.4	-3.4	-3.2	-3.1	-3.9	-10.6	-31.4	-12.6	-5.5	-3.2	-7.2
Alt 13a	Flow Change	-3.1	-3.3	-3.4	-3.4	-3.2	-3.1	-3.9	-10.6	-32.3	-14.0	-5.8	-3.2	-7.4
Percent change in flow from Current Conditions														
Full Use	% Change	-69%	-72%	-81%	-82%	-86%	-92%	-76%	-25%	-12%	-24%	-40%	-51%	-30%
No Act	% Change	-70%	-73%	-80%	-80%	-86%	-92%	-76%	-33%	-19%	-26%	-42%	-51%	-35%
Alt 1a	% Change	-72%	-75%	-83%	-85%	-89%	-92%	-76%	-54%	-44%	-47%	-49%	-51%	-53%
Alt 1c	% Change	-72%	-75%	-83%	-85%	-89%	-92%	-76%	-54%	-43%	-47%	-49%	-51%	-52%
Alt 8a	% Change	-72%	-75%	-83%	-85%	-89%	-92%	-76%	-54%	-43%	-39%	-43%	-51%	-50%
Alt 10a	% Change	-72%	-75%	-83%	-85%	-89%	-92%	-76%	-54%	-43%	-39%	-43%	-51%	-50%
Alt 13a	% Change	-72%	-75%	-83%	-85%	-89%	-92%	-76%	-54%	-44%	-44%	-45%	-51%	-51%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Conditions		3.2	3.6	3.6	3.5	3.4	3.2	5.6	9.8	11.0	10.1	7.9	4.8	5.8
Full Use	Flow	0.4	0.7	0.4	0.4	0.3	0.2	1.4	5.5	4.8	3.9	3.6	1.6	1.9
No Act	Flow	0.4	0.7	0.4	0.4	0.3	0.2	1.4	5.5	4.8	3.9	3.6	1.6	1.9
Alt 1a	Flow	0.4	0.7	0.4	0.4	0.3	0.2	1.4	5.5	4.8	3.9	3.6	1.6	1.9
Alt 1c	Flow	0.4	0.7	0.4	0.4	0.3	0.2	1.4	5.5	4.8	3.9	3.6	1.6	1.9
Alt 8a	Flow	0.4	0.7	0.4	0.4	0.3	0.2	1.4	5.5	4.8	3.9	3.6	1.6	1.9
Alt 10a	Flow	0.4	0.7	0.4	0.4	0.3	0.2	1.4	5.5	4.8	3.9	3.6	1.6	1.9
Alt 13a	Flow	0.4	0.7	0.4	0.4	0.3	0.2	1.4	5.5	4.8	3.9	3.6	1.6	1.9
Flow change from Current Conditions														
Full Use	Flow Change	-2.8	-2.9	-3.2	-3.1	-3.1	-2.9	-4.2	-4.4	-6.2	-6.2	-4.4	-3.2	-3.9
No Act	Flow Change	-2.8	-2.9	-3.2	-3.1	-3.1	-2.9	-4.2	-4.4	-6.2	-6.2	-4.4	-3.2	-3.9
Alt 1a	Flow Change	-2.8	-2.9	-3.2	-3.1	-3.1	-2.9	-4.2	-4.4	-6.2	-6.2	-4.4	-3.2	-3.9
Alt 1c	Flow Change	-2.8	-2.9	-3.2	-3.1	-3.1	-2.9	-4.2	-4.4	-6.2	-6.2	-4.4	-3.2	-3.9
Alt 8a	Flow Change	-2.8	-2.9	-3.2	-3.1	-3.1	-2.9	-4.2	-4.4	-6.2	-6.2	-4.4	-3.2	-3.9
Alt 10a	Flow Change	-2.8	-2.9	-3.2	-3.1	-3.1	-2.9	-4.2	-4.4	-6.2	-6.2	-4.4	-3.2	-3.9
Alt 13a	Flow Change	-2.8	-2.9	-3.2	-3.1	-3.1	-2.9	-4.2	-4.4	-6.2	-6.2	-4.4	-3.2	-3.9
Percent change in flow from Current Conditions														
Full Use	% Change	-87%	-82%	-88%	-89%	-92%	-93%	-74%	-44%	-56%	-62%	-55%	-67%	-67%
No Act	% Change	-87%	-82%	-88%	-89%	-92%	-93%	-74%	-44%	-56%	-62%	-55%	-67%	-67%
Alt 1a	% Change	-87%	-82%	-88%	-89%	-92%	-93%	-74%	-44%	-56%	-62%	-55%	-67%	-67%
Alt 1c	% Change	-87%	-82%	-88%	-89%	-92%	-93%	-74%	-44%	-56%	-62%	-55%	-67%	-67%
Alt 8a	% Change	-87%	-82%	-88%	-89%	-92%	-93%	-74%	-44%	-56%	-62%	-55%	-67%	-67%
Alt 10a	% Change	-87%	-82%	-88%	-89%	-92%	-93%	-74%	-44%	-56%	-62%	-55%	-67%	-67%
Alt 13a	% Change	-87%	-82%	-88%	-89%	-92%	-93%	-74%	-44%	-56%	-62%	-55%	-67%	-67%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Conditions		7.5	5.4	4.6	3.7	3.2	2.8	5.7	34.8	158.7	71.9	23.2	7.0	27.4
Full Use	Flow	4.3	2.3	1.4	0.7	0.4	0.2	1.9	25.2	146.7	61.6	15.0	3.8	22.0
No Act	Flow	4.3	2.3	1.4	0.7	0.4	0.2	1.9	24.4	141.6	60.0	13.2	3.3	21.1
Alt 1a	Flow	4.3	2.3	1.4	0.7	0.4	0.2	1.9	14.3	115.1	61.0	13.4	3.3	18.2
Alt 1c	Flow	4.3	2.3	1.4	0.7	0.4	0.2	1.9	14.3	117.6	61.8	13.5	3.3	18.5
Alt 8a	Flow	4.3	2.3	1.4	0.7	0.4	0.2	1.9	14.3	115.6	60.8	13.4	3.3	18.2
Alt 10a	Flow	4.3	2.3	1.4	0.7	0.4	0.2	1.9	14.3	115.4	61.1	13.4	3.3	18.2
Alt 13a	Flow	4.3	2.3	1.4	0.7	0.4	0.2	1.9	14.3	116.1	60.2	13.4	3.3	18.2
Flow change from Current Conditions														
Full Use	Flow Change	-3.1	-3.1	-3.2	-3.0	-2.8	-2.6	-3.8	-9.6	-12.1	-10.3	-8.3	-3.2	-5.4
No Act	Flow Change	-3.1	-3.1	-3.2	-3.0	-2.8	-2.6	-3.8	-10.4	-17.1	-12.0	-10.0	-3.7	-6.2
Alt 1a	Flow Change	-3.1	-3.1	-3.2	-3.0	-2.8	-2.6	-3.8	-20.5	-43.7	-10.9	-9.9	-3.7	-9.2
Alt 1c	Flow Change	-3.1	-3.1	-3.2	-3.0	-2.8	-2.6	-3.8	-20.5	-41.1	-10.1	-9.7	-3.7	-8.9
Alt 8a	Flow Change	-3.1	-3.1	-3.2	-3.0	-2.8	-2.6	-3.8	-20.5	-43.1	-11.1	-9.8	-3.7	-9.2
Alt 10a	Flow Change	-3.1	-3.1	-3.2	-3.0	-2.8	-2.6	-3.8	-20.5	-43.3	-10.9	-9.8	-3.7	-9.2
Alt 13a	Flow Change	-3.1	-3.1	-3.2	-3.0	-2.8	-2.6	-3.8	-20.5	-42.7	-11.8	-9.8	-3.7	-9.2
Percent change in flow from Current Conditions														
Full Use	% Change	-42%	-57%	-70%	-81%	-88%	-93%	-67%	-27%	-8%	-14%	-36%	-46%	-20%
No Act	% Change	-42%	-57%	-70%	-81%	-88%	-93%	-67%	-30%	-11%	-17%	-43%	-52%	-23%
Alt 1a	% Change	-42%	-57%	-70%	-81%	-88%	-93%	-67%	-59%	-28%	-15%	-42%	-53%	-34%
Alt 1c	% Change	-42%	-57%	-70%	-81%	-88%	-93%	-67%	-59%	-26%	-14%	-42%	-53%	-33%
Alt 8a	% Change	-42%	-57%	-70%	-81%	-88%	-93%	-67%	-59%	-27%	-15%	-42%	-53%	-33%
Alt 10a	% Change	-42%	-57%	-70%	-81%	-88%	-93%	-67%	-59%	-27%	-15%	-42%	-53%	-33%
Alt 13a	% Change	-42%	-57%	-70%	-81%	-88%	-93%	-67%	-59%	-27%	-16%	-42%	-53%	-34%

Table H-1.38. Fraser River below Vasquez Creek (cfs)

Flow Change and % Change are based on comparisons to Current Conditions														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		8.8	8.8	8.5	8.4	8.1	8.2	13.3	43.8	136.9	53.4	22.8	13.5	27.9
Full Use	Flow	5.9	5.6	5.2	5.0	5.0	5.1	9.5	38.5	122.1	43.8	17.6	10.5	22.8
No Act	Flow	5.9	5.6	5.2	5.2	5.0	5.1	9.5	34.8	110.3	42.8	17.3	10.4	21.4
Alt 1a	Flow	5.8	5.5	5.0	4.8	4.7	5.0	9.5	26.8	75.7	33.7	16.5	10.4	16.9
Alt 1c	Flow	5.8	5.5	5.0	4.8	4.7	5.0	9.5	26.8	77.2	33.7	16.5	10.4	17.1
Alt 8a	Flow	5.8	5.5	5.0	4.8	4.7	5.0	9.5	26.8	78.1	36.8	17.3	10.4	17.5
Alt 10a	Flow	5.8	5.5	5.0	4.8	4.7	5.0	9.5	26.8	78.0	36.8	17.3	10.4	17.4
Alt 13a	Flow	5.8	5.5	5.0	4.8	4.7	5.0	9.5	26.8	76.4	35.1	16.9	10.4	17.1
Flow change from Current Conditions														
Full Use	Flow Change	-3.0	-3.1	-3.4	-3.3	-3.1	-3.1	-3.9	-5.3	-14.8	-9.6	-5.1	-3.0	-5.1
No Act	Flow Change	-3.0	-3.2	-3.3	-3.1	-3.1	-3.1	-3.9	-8.9	-26.6	-10.5	-5.4	-3.1	-6.4
Alt 1a	Flow Change	-3.1	-3.3	-3.6	-3.6	-3.4	-3.2	-3.9	-17.0	-61.2	-19.7	-6.3	-3.1	-10.9
Alt 1c	Flow Change	-3.1	-3.3	-3.6	-3.6	-3.4	-3.2	-3.9	-17.0	-59.7	-19.7	-6.2	-3.1	-10.8
Alt 8a	Flow Change	-3.1	-3.3	-3.6	-3.6	-3.4	-3.2	-3.9	-17.0	-58.8	-16.6	-5.5	-3.1	-10.4
Alt 10a	Flow Change	-3.1	-3.3	-3.6	-3.6	-3.4	-3.2	-3.9	-17.0	-58.9	-16.6	-5.5	-3.1	-10.4
Alt 13a	Flow Change	-3.1	-3.3	-3.6	-3.6	-3.4	-3.2	-3.9	-17.0	-60.6	-18.2	-5.8	-3.1	-10.7
Percent change in flow from Current Conditions														
Full Use	% Change	-33%	-36%	-40%	-40%	-38%	-38%	-29%	-12%	-11%	-18%	-23%	-22%	-18%
No Act	% Change	-34%	-36%	-39%	-38%	-38%	-38%	-29%	-20%	-19%	-20%	-24%	-23%	-23%
Alt 1a	% Change	-35%	-37%	-42%	-43%	-42%	-39%	-29%	-39%	-45%	-37%	-28%	-23%	-39%
Alt 1c	% Change	-35%	-37%	-42%	-43%	-42%	-39%	-29%	-39%	-44%	-37%	-27%	-23%	-39%
Alt 8a	% Change	-35%	-37%	-42%	-43%	-42%	-39%	-29%	-39%	-43%	-31%	-24%	-23%	-37%
Alt 10a	% Change	-35%	-37%	-42%	-43%	-42%	-39%	-29%	-39%	-43%	-31%	-24%	-23%	-37%
Alt 13a	% Change	-35%	-37%	-42%	-43%	-42%	-39%	-29%	-39%	-44%	-34%	-26%	-23%	-38%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Conditions		7.3	7.8	7.5	7.4	7.4	7.6	12.3	19.6	21.4	19.7	16.9	11.2	12.2
Full Use	Flow	4.7	5.0	4.4	4.3	4.4	4.6	8.1	15.2	13.7	12.0	11.8	7.7	8.0
No Act	Flow	4.7	5.0	4.4	4.3	4.4	4.6	8.1	15.2	13.7	12.0	11.8	7.7	8.0
Alt 1a	Flow	4.7	5.0	4.4	4.3	4.4	4.6	8.1	15.2	13.7	12.0	11.8	7.7	8.0
Alt 1c	Flow	4.7	5.0	4.4	4.3	4.4	4.6	8.1	15.2	13.7	12.0	11.8	7.7	8.0
Alt 8a	Flow	4.7	5.0	4.4	4.3	4.4	4.6	8.1	15.2	13.7	12.0	11.8	7.7	8.0
Alt 10a	Flow	4.7	5.0	4.4	4.3	4.4	4.6	8.1	15.2	13.7	12.0	11.8	7.7	8.0
Alt 13a	Flow	4.7	5.0	4.4	4.3	4.4	4.6	8.1	15.2	13.7	12.0	11.8	7.7	8.0
Flow change from Current Conditions														
Full Use	Flow Change	-2.6	-2.8	-3.1	-3.1	-3.1	-2.9	-4.2	-4.3	-7.7	-7.7	-5.2	-3.6	-4.2
No Act	Flow Change	-2.6	-2.8	-3.1	-3.1	-3.1	-2.9	-4.2	-4.3	-7.7	-7.7	-5.2	-3.6	-4.2
Alt 1a	Flow Change	-2.6	-2.8	-3.1	-3.1	-3.1	-2.9	-4.2	-4.3	-7.7	-7.7	-5.2	-3.6	-4.2
Alt 1c	Flow Change	-2.6	-2.8	-3.1	-3.1	-3.1	-2.9	-4.2	-4.3	-7.7	-7.7	-5.2	-3.6	-4.2
Alt 8a	Flow Change	-2.6	-2.8	-3.1	-3.1	-3.1	-2.9	-4.2	-4.3	-7.7	-7.7	-5.2	-3.6	-4.2
Alt 10a	Flow Change	-2.6	-2.8	-3.1	-3.1	-3.1	-2.9	-4.2	-4.3	-7.7	-7.7	-5.2	-3.6	-4.2
Alt 13a	Flow Change	-2.6	-2.8	-3.1	-3.1	-3.1	-2.9	-4.2	-4.3	-7.7	-7.7	-5.2	-3.6	-4.2
Percent change in flow from Current Conditions														
Full Use	% Change	-36%	-36%	-41%	-42%	-41%	-39%	-34%	-22%	-36%	-39%	-31%	-32%	-34%
No Act	% Change	-36%	-36%	-41%	-42%	-41%	-39%	-34%	-22%	-36%	-39%	-31%	-32%	-34%
Alt 1a	% Change	-36%	-36%	-41%	-42%	-41%	-39%	-34%	-22%	-36%	-39%	-31%	-32%	-34%
Alt 1c	% Change	-36%	-36%	-41%	-42%	-41%	-39%	-34%	-22%	-36%	-39%	-31%	-32%	-34%
Alt 8a	% Change	-36%	-36%	-41%	-42%	-41%	-39%	-34%	-22%	-36%	-39%	-31%	-32%	-34%
Alt 10a	% Change	-36%	-36%	-41%	-42%	-41%	-39%	-34%	-22%	-36%	-39%	-31%	-32%	-34%
Alt 13a	% Change	-36%	-36%	-41%	-42%	-41%	-39%	-34%	-22%	-36%	-39%	-31%	-32%	-34%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Conditions		12.9	10.3	9.6	8.4	8.0	7.8	16.9	81.4	308.4	129.1	34.0	14.6	53.4
Full Use	Flow	9.9	7.4	6.4	5.4	5.2	5.1	13.2	69.2	286.8	112.8	25.6	11.6	46.5
No Act	Flow	9.9	7.4	6.4	5.4	5.2	5.1	13.2	65.4	272.6	109.7	23.8	11.1	44.6
Alt 1a	Flow	9.9	7.4	6.4	5.4	5.2	5.1	13.2	44.7	219.3	111.0	24.1	11.1	38.6
Alt 1c	Flow	9.9	7.4	6.4	5.4	5.2	5.1	13.2	44.8	223.5	111.7	24.9	11.1	39.1
Alt 8a	Flow	9.9	7.4	6.4	5.4	5.2	5.1	13.2	44.7	220.2	110.7	24.2	11.1	38.6
Alt 10a	Flow	9.9	7.4	6.4	5.4	5.2	5.1	13.2	44.7	220.0	110.9	24.2	11.1	38.6
Alt 13a	Flow	9.9	7.4	6.4	5.4	5.2	5.1	13.2	44.7	220.7	110.0	24.1	11.1	38.6
Flow change from Current Conditions														
Full Use	Flow Change	-3.0	-2.9	-3.2	-2.9	-2.8	-2.6	-3.8	-12.3	-21.6	-16.2	-8.4	-3.0	-6.9
No Act	Flow Change	-3.0	-2.9	-3.2	-2.9	-2.8	-2.6	-3.8	-16.1	-35.7	-19.3	-10.2	-3.5	-8.8
Alt 1a	Flow Change	-3.0	-2.9	-3.2	-2.9	-2.8	-2.6	-3.8	-36.7	-89.1	-18.1	-9.9	-3.5	-14.9
Alt 1c	Flow Change	-3.0	-2.9	-3.2	-2.9	-2.8	-2.6	-3.8	-36.6	-84.9	-17.3	-9.1	-3.5	-14.4
Alt 8a	Flow Change	-3.0	-2.9	-3.2	-2.9	-2.8	-2.6	-3.8	-36.7	-88.2	-18.3	-9.8	-3.5	-14.8
Alt 10a	Flow Change	-3.0	-2.9	-3.2	-2.9	-2.8	-2.6	-3.8	-36.7	-88.4	-18.1	-9.8	-3.5	-14.8
Alt 13a	Flow Change	-3.0	-2.9	-3.2	-2.9	-2.8	-2.6	-3.8	-36.7	-87.7	-19.1	-9.9	-3.5	-14.8
Percent change in flow from Current Conditions														
Full Use	% Change	-23%	-28%	-33%	-35%	-35%	-34%	-22%	-15%	-7%	-13%	-25%	-20%	-13%
No Act	% Change	-23%	-28%	-33%	-35%	-35%	-34%	-22%	-20%	-12%	-15%	-30%	-24%	-17%
Alt 1a	% Change	-23%	-28%	-33%	-35%	-35%	-34%	-22%	-45%	-29%	-14%	-29%	-24%	-28%
Alt 1c	% Change	-23%	-28%	-33%	-35%	-35%	-34%	-22%	-45%	-28%	-13%	-27%	-24%	-27%
Alt 8a	% Change	-23%	-28%	-33%	-35%	-35%	-34%	-22%	-45%	-29%	-14%	-29%	-24%	-28%
Alt 10a	% Change	-23%	-28%	-33%	-35%	-35%	-34%	-22%	-45%	-29%	-14%	-29%	-24%	-28%
Alt 13a	% Change	-23%	-28%	-33%	-35%	-35%	-34%	-22%	-45%	-28%	-15%	-29%	-24%	-28%

Table H-1.39. Below Denver Water's Diversions from Elk Creek and Tributaries (cfs)

Flow Change and % Change are based on comparisons to Current Conditions														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.8	7.5	4.0	1.5	0.5	1.2
Full Use	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.7	7.2	3.8	1.4	0.5	1.1
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	6.7	3.7	1.4	0.5	1.1
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.7	3.2	1.4	0.5	0.8
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.7	3.2	1.4	0.5	0.8
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.8	3.3	1.4	0.5	0.8
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.8	3.3	1.4	0.5	0.8
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.7	3.3	1.4	0.5	0.8
Flow change from Current Conditions														
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.4	-0.2	-0.1	0.0	-0.1
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.9	-0.3	-0.1	0.0	-0.1
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.7	-2.9	-0.7	-0.1	0.0	-0.4
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.7	-2.9	-0.8	-0.1	0.0	-0.4
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.7	-2.8	-0.6	-0.1	0.0	-0.4
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.7	-2.8	-0.6	-0.1	0.0	-0.4
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.7	-2.9	-0.7	-0.1	0.0	-0.4
Percent change in flow from Current Conditions														
Full Use	% Change	-6%	-23%	-48%	-25%	0%	-3%	0%	-8%	-5%	-5%	-3%	-1%	-5%
No Act	% Change	-16%	-33%	-43%	3%	0%	-3%	0%	-27%	-11%	-8%	-5%	-2%	-10%
Alt 1a	% Change	-28%	-71%	-84%	-88%	-80%	-63%	0%	-88%	-38%	-19%	-9%	-2%	-32%
Alt 1c	% Change	-28%	-71%	-84%	-88%	-80%	-63%	0%	-88%	-38%	-19%	-9%	-2%	-32%
Alt 8a	% Change	-28%	-71%	-84%	-88%	-80%	-63%	0%	-88%	-37%	-16%	-5%	-2%	-30%
Alt 10a	% Change	-28%	-71%	-84%	-88%	-80%	-63%	0%	-88%	-37%	-16%	-5%	-2%	-30%
Alt 13a	% Change	-28%	-71%	-84%	-88%	-80%	-63%	0%	-88%	-38%	-18%	-8%	-2%	-31%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Conditions		0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.9	1.9	1.0	0.5	0.5
Full Use	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.9	1.9	1.0	0.5	0.5
No Act	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.9	1.9	1.0	0.5	0.5
Alt 1a	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.9	1.9	1.0	0.5	0.5
Alt 1c	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.9	1.9	1.0	0.5	0.5
Alt 8a	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.9	1.9	1.0	0.5	0.5
Alt 10a	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.9	1.9	1.0	0.5	0.5
Alt 13a	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.9	1.9	1.0	0.5	0.5
Flow change from Current Conditions														
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent change in flow from Current Conditions														
Full Use	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Conditions		0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	16.8	7.3	3.1	0.5	2.5
Full Use	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	15.4	7.0	2.7	0.4	2.3
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	15.1	6.9	2.5	0.4	2.2
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	12.7	7.0	2.6	0.4	1.9
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	12.7	7.1	2.6	0.4	1.9
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	13.0	7.0	2.6	0.4	2.0
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	12.9	7.0	2.6	0.4	2.0
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	13.0	7.0	2.6	0.4	2.0
Flow change from Current Conditions														
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.4	-1.4	-0.3	-0.4	-0.1	-0.2
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.6	-1.7	-0.4	-0.6	-0.1	-0.3
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.9	-4.1	-0.3	-0.5	-0.1	-0.6
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.9	-4.1	-0.2	-0.5	-0.1	-0.6
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.9	-3.8	-0.3	-0.5	-0.1	-0.6
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.9	-3.9	-0.3	-0.5	-0.1	-0.6
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.9	-3.8	-0.3	-0.5	-0.1	-0.6
Percent change in flow from Current Conditions														
Full Use	% Change	0%	0%	0%	0%	0%	-52%	0%	-18%	-8%	-3%	-13%	-13%	-8%
No Act	% Change	0%	0%	0%	0%	0%	-52%	0%	-25%	-10%	-6%	-19%	-18%	-11%
Alt 1a	% Change	0%	0%	0%	0%	0%	-52%	0%	-79%	-24%	-4%	-17%	-21%	-23%
Alt 1c	% Change	0%	0%	0%	0%	0%	-52%	0%	-79%	-24%	-2%	-17%	-23%	-23%
Alt 8a	% Change	0%	0%	0%	0%	0%	-52%	0%	-79%	-23%	-4%	-16%	-21%	-22%
Alt 10a	% Change	0%	0%	0%	0%	0%	-52%	0%	-79%	-23%	-4%	-16%	-21%	-22%
Alt 13a	% Change	0%	0%	0%	0%	0%	-52%	0%	-79%	-23%	-5%	-16%	-21%	-22%

Table H-1.40. Below Denver Water's Diversion from St. Louis Creek (cfs)

Flow Change and % Change are based on comparisons to Current Conditions		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		2.9	2.4	2.1	1.9	1.7	1.6	2.0	9.3	39.7	23.4	10.4	5.0	8.6
Full Use	Flow	2.8	2.4	2.0	1.9	1.7	1.6	2.0	9.0	39.0	21.3	10.1	4.9	8.2
No Act	Flow	2.8	2.4	2.0	1.9	1.7	1.6	2.0	8.5	37.2	20.5	9.8	4.9	7.9
Alt 1a	Flow	2.8	2.3	2.0	1.9	1.7	1.6	2.0	6.7	28.9	17.8	9.6	4.9	6.9
Alt 1c	Flow	2.8	2.3	2.0	1.9	1.7	1.6	2.0	6.7	29.0	17.9	9.6	4.9	6.9
Alt 8a	Flow	2.8	2.3	2.0	1.9	1.7	1.6	2.0	6.7	29.4	18.6	9.9	4.9	7.0
Alt 10a	Flow	2.8	2.3	2.0	1.9	1.7	1.6	2.0	6.7	29.4	18.6	9.9	4.9	7.0
Alt 13a	Flow	2.8	2.3	2.0	1.9	1.7	1.6	2.0	6.7	29.1	18.3	9.7	4.9	6.9
Flow change from Current Conditions														
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-0.7	-2.1	-0.3	-0.1	-0.3
No Act	Flow Change	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.9	-2.5	-2.9	-0.6	-0.1	-0.6
Alt 1a	Flow Change	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	-2.6	-10.7	-5.6	-0.8	-0.1	-1.7
Alt 1c	Flow Change	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	-2.6	-10.7	-5.6	-0.8	-0.1	-1.7
Alt 8a	Flow Change	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	-2.6	-10.3	-4.8	-0.4	-0.1	-1.5
Alt 10a	Flow Change	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	-2.6	-10.3	-4.8	-0.4	-0.1	-1.5
Alt 13a	Flow Change	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	-2.6	-10.6	-5.2	-0.6	-0.1	-1.6
Percent change in flow from Current Conditions														
Full Use	% Change	-1%	-2%	-1%	-1%	-1%	0%	0%	-3%	-2%	-9%	-3%	-1%	-4%
No Act	% Change	-3%	-2%	-1%	-1%	-1%	0%	0%	-9%	-6%	-13%	-6%	-2%	-7%
Alt 1a	% Change	-3%	-2%	-1%	-1%	-1%	0%	0%	-28%	-27%	-24%	-7%	-2%	-20%
Alt 1c	% Change	-3%	-2%	-1%	-1%	-1%	0%	0%	-28%	-27%	-24%	-8%	-2%	-19%
Alt 8a	% Change	-3%	-2%	-1%	-1%	-1%	0%	0%	-28%	-26%	-21%	-4%	-2%	-18%
Alt 10a	% Change	-3%	-2%	-1%	-1%	-1%	0%	0%	-28%	-26%	-20%	-4%	-2%	-18%
Alt 13a	% Change	-3%	-2%	-1%	-1%	-1%	0%	0%	-28%	-27%	-22%	-6%	-2%	-19%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Conditions		2.7	2.3	2.0	1.8	1.7	1.6	2.3	6.3	9.5	9.1	7.0	3.9	4.2
Full Use	Flow	2.7	2.3	2.0	1.8	1.7	1.6	2.3	6.3	7.9	7.8	6.2	3.7	3.9
No Act	Flow	2.7	2.3	2.0	1.8	1.7	1.6	2.3	6.3	7.9	7.8	6.2	3.7	3.9
Alt 1a	Flow	2.7	2.3	2.0	1.8	1.7	1.6	2.3	6.3	7.9	7.8	6.2	3.7	3.9
Alt 1c	Flow	2.7	2.3	2.0	1.8	1.7	1.6	2.3	6.3	7.9	7.8	6.2	3.7	3.9
Alt 8a	Flow	2.7	2.3	2.0	1.8	1.7	1.6	2.3	6.3	7.9	7.8	6.2	3.7	3.9
Alt 10a	Flow	2.7	2.3	2.0	1.8	1.7	1.6	2.3	6.3	7.9	7.8	6.2	3.7	3.9
Alt 13a	Flow	2.7	2.3	2.0	1.8	1.7	1.6	2.3	6.3	7.9	7.8	6.2	3.7	3.9
Flow change from Current Conditions														
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.6	-1.3	-0.8	-0.2	-0.3
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.6	-1.3	-0.8	-0.2	-0.3
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.6	-1.3	-0.8	-0.2	-0.3
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.6	-1.3	-0.8	-0.2	-0.3
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.6	-1.3	-0.8	-0.2	-0.3
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.6	-1.3	-0.8	-0.2	-0.3
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.6	-1.3	-0.8	-0.2	-0.3
Percent change in flow from Current Conditions														
Full Use	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-17%	-15%	-11%	-5%	-8%
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-17%	-15%	-11%	-5%	-8%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-17%	-15%	-11%	-5%	-8%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-17%	-15%	-11%	-5%	-8%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-17%	-15%	-11%	-5%	-8%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-17%	-15%	-11%	-5%	-8%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-17%	-15%	-11%	-5%	-8%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Conditions		3.4	2.8	2.5	1.8	1.8	1.8	2.4	18.4	83.8	49.5	19.3	7.0	16.3
Full Use	Flow	3.4	2.8	2.5	1.8	1.8	1.8	2.4	14.6	83.2	46.5	18.9	6.5	15.5
No Act	Flow	3.4	2.8	2.5	1.8	1.8	1.8	2.4	14.4	82.0	45.3	17.0	6.2	15.1
Alt 1a	Flow	3.4	2.8	2.5	1.8	1.8	1.8	2.4	10.0	72.3	44.7	18.0	6.2	14.0
Alt 1c	Flow	3.4	2.8	2.5	1.8	1.8	1.8	2.4	10.2	72.6	45.4	18.0	6.2	14.1
Alt 8a	Flow	3.4	2.8	2.5	1.8	1.8	1.8	2.4	10.3	73.2	45.0	18.0	6.2	14.1
Alt 10a	Flow	3.4	2.8	2.5	1.8	1.8	1.8	2.4	10.1	73.2	45.2	18.0	6.2	14.1
Alt 13a	Flow	3.4	2.8	2.5	1.8	1.8	1.8	2.4	10.1	72.6	45.5	18.0	6.2	14.1
Flow change from Current Conditions														
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.8	-0.5	-2.9	-0.4	-0.5	-0.7
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-4.1	-1.8	-4.2	-2.3	-0.9	-1.1
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-8.4	-11.5	-4.8	-1.3	-0.9	-2.2
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-8.2	-11.2	-4.0	-1.3	-0.9	-2.1
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-8.2	-10.5	-4.5	-1.3	-0.9	-2.1
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-8.3	-10.5	-4.3	-1.3	-0.9	-2.1
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-8.3	-11.2	-4.0	-1.3	-0.9	-2.1
Percent change in flow from Current Conditions														
Full Use	% Change	0%	0%	0%	0%	0%	0%	0%	-21%	-1%	-6%	-2%	-7%	-4%
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-22%	-2%	-8%	-12%	-12%	-7%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	-46%	-14%	-10%	-7%	-12%	-14%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	-45%	-13%	-8%	-7%	-12%	-13%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	-44%	-13%	-9%	-7%	-12%	-13%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	-45%	-13%	-9%	-7%	-12%	-13%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	-45%	-13%	-8%	-7%	-12%	-13%

Table H-1.41. Below Denver Water's Diversions from St. Louis Creek Tributaries (cfs)

Flow Change and % Change are based on comparisons to Current Conditions														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		0.1	0.1	0.1	0.1	0.1	0.0	0.0	3.0	27.3	11.9	1.8	0.1	3.7
Full Use	Flow	0.1	0.1	0.0	0.1	0.1	0.0	0.0	2.8	26.4	10.1	1.6	0.0	3.4
No Act	Flow	0.0	0.1	0.0	0.1	0.1	0.0	0.0	2.2	24.2	9.7	1.3	0.0	3.1
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	15.7	7.0	1.0	0.0	2.0
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	15.9	6.9	0.9	0.0	2.0
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	16.2	7.9	1.5	0.0	2.2
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	16.2	7.8	1.5	0.0	2.2
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	15.9	7.4	1.2	0.0	2.1
Flow change from Current Conditions														
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.9	-1.8	-0.1	-0.1	-0.3
No Act	Flow Change	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.8	-3.1	-2.1	-0.5	-0.1	-0.6
Alt 1a	Flow Change	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	-2.7	-11.6	-4.8	-0.8	-0.1	-1.7
Alt 1c	Flow Change	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	-2.7	-11.5	-5.0	-0.8	-0.1	-1.7
Alt 8a	Flow Change	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	-2.7	-11.1	-3.9	-0.3	-0.1	-1.5
Alt 10a	Flow Change	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	-2.7	-11.1	-4.0	-0.3	-0.1	-1.6
Alt 13a	Flow Change	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	-2.7	-11.4	-4.5	-0.6	-0.1	-1.6
Percent change in flow from Current Conditions														
Full Use	% Change	-32%	-39%	-60%	-29%	0%	-1%	0%	-7%	-3%	-15%	-8%	-59%	-7%
No Act	% Change	-70%	-44%	-55%	0%	0%	-1%	0%	-27%	-11%	-18%	-26%	-85%	-15%
Alt 1a	% Change	-100%	-98%	-100%	-100%	-100%	-91%	0%	-91%	-43%	-41%	-44%	-86%	-46%
Alt 1c	% Change	-100%	-98%	-100%	-100%	-100%	-91%	0%	-91%	-42%	-42%	-47%	-95%	-46%
Alt 8a	% Change	-100%	-98%	-100%	-100%	-100%	-91%	0%	-91%	-41%	-33%	-16%	-86%	-42%
Alt 10a	% Change	-100%	-98%	-100%	-100%	-100%	-91%	0%	-91%	-41%	-34%	-17%	-86%	-42%
Alt 13a	% Change	-100%	-98%	-100%	-100%	-100%	-91%	0%	-91%	-42%	-38%	-34%	-86%	-44%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Conditions		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Full Use	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flow change from Current Conditions														
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent change in flow from Current Conditions														
Full Use	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Conditions		0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	67.9	33.1	10.5	1.0	10.3
Full Use	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.4	65.6	30.8	9.7	0.3	9.6
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.8	63.8	29.6	7.4	0.1	9.1
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	53.5	29.5	8.5	0.1	7.8
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	54.6	30.2	8.3	0.0	8.0
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	55.2	30.0	8.6	0.1	8.0
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	54.9	29.6	8.5	0.1	8.0
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	54.0	29.7	8.4	0.1	7.9
Flow change from Current Conditions														
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-2.6	-2.3	-2.3	-0.8	-0.7	-0.7
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.2	-4.1	-3.5	-3.1	-0.9	-1.2
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-8.4	-14.4	-3.6	-2.0	-0.9	-2.4
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-8.4	-13.3	-2.9	-2.2	-1.0	-2.3
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-8.4	-12.7	-3.1	-2.0	-0.9	-2.3
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-8.4	-13.1	-3.5	-2.0	-0.9	-2.3
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-8.4	-13.9	-3.3	-2.1	-0.9	-2.4
Percent change in flow from Current Conditions														
Full Use	% Change	0%	0%	0%	0%	0%	-10%	0%	-23%	-3%	-7%	-7%	-70%	-7%
No Act	% Change	0%	0%	0%	0%	0%	-10%	0%	-29%	-6%	-10%	-29%	-90%	-12%
Alt 1a	% Change	0%	0%	0%	0%	0%	-10%	0%	-77%	-21%	-11%	-19%	-91%	-24%
Alt 1c	% Change	0%	0%	0%	0%	0%	-10%	0%	-77%	-20%	-9%	-21%	-100%	-23%
Alt 8a	% Change	0%	0%	0%	0%	0%	-10%	0%	-77%	-19%	-9%	-19%	-91%	-22%
Alt 10a	% Change	0%	0%	0%	0%	0%	-10%	0%	-77%	-19%	-11%	-19%	-91%	-23%
Alt 13a	% Change	0%	0%	0%	0%	0%	-10%	0%	-77%	-20%	-10%	-20%	-91%	-23%

Table H-1.42. St. Louis Creek near Fraser Gage (cfs)

Flow Change and % Change are based on comparisons to Current Conditions														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		8.7	7.5	6.1	5.4	4.9	4.9	7.5	26.9	100.5	54.2	21.3	11.3	21.6
Full Use	Flow	8.6	7.4	6.0	5.3	4.9	5.0	7.5	26.4	98.9	50.3	20.8	11.2	21.0
No Act	Flow	8.5	7.4	6.0	5.4	4.9	5.0	7.5	25.2	95.0	49.1	20.3	11.1	20.4
Alt 1a	Flow	8.5	7.3	6.0	5.3	4.8	4.9	7.5	21.5	78.2	43.7	19.7	11.1	18.2
Alt 1c	Flow	8.5	7.3	6.0	5.3	4.8	4.9	7.5	21.6	78.4	43.6	19.7	11.1	18.2
Alt 8a	Flow	8.5	7.3	6.0	5.3	4.8	4.9	7.5	21.6	79.2	45.4	20.6	11.1	18.5
Alt 10a	Flow	8.5	7.3	6.0	5.3	4.8	4.9	7.5	21.6	79.2	45.3	20.6	11.1	18.5
Alt 13a	Flow	8.5	7.3	6.0	5.3	4.8	4.9	7.5	21.5	78.5	44.5	20.1	11.1	18.3
		Flow change from Current Conditions												
Full Use	Flow Change	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	-0.5	-1.6	-3.9	-0.5	-0.1	-0.6
No Act	Flow Change	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	-1.7	-5.5	-5.1	-1.0	-0.2	-1.2
Alt 1a	Flow Change	-0.2	-0.1	-0.1	-0.1	-0.1	0.0	0.0	-5.4	-22.4	-10.5	-1.6	-0.2	-3.4
Alt 1c	Flow Change	-0.2	-0.1	-0.1	-0.1	-0.1	0.0	0.0	-5.3	-22.1	-10.5	-1.6	-0.2	-3.4
Alt 8a	Flow Change	-0.2	-0.1	-0.1	-0.1	-0.1	0.0	0.0	-5.3	-21.4	-8.8	-0.7	-0.2	-3.1
Alt 10a	Flow Change	-0.2	-0.1	-0.1	-0.1	-0.1	0.0	0.0	-5.3	-21.4	-8.8	-0.7	-0.2	-3.1
Alt 13a	Flow Change	-0.2	-0.1	-0.1	-0.1	-0.1	0.0	0.0	-5.3	-22.1	-9.6	-1.2	-0.2	-3.3
		Percent change in flow from Current Conditions												
Full Use	% Change	-1%	-1%	-1%	-1%	0%	0%	0%	-2%	-2%	-7%	-2%	-1%	-3%
No Act	% Change	-2%	-1%	-1%	0%	0%	0%	0%	-6%	-6%	-9%	-5%	-2%	-5%
Alt 1a	% Change	-2%	-2%	-1%	-2%	-2%	-1%	0%	-20%	-22%	-19%	-7%	-2%	-16%
Alt 1c	% Change	-2%	-2%	-1%	-2%	-2%	-1%	0%	-20%	-22%	-19%	-8%	-2%	-16%
Alt 8a	% Change	-2%	-2%	-1%	-2%	-2%	-1%	0%	-20%	-21%	-16%	-3%	-2%	-14%
Alt 10a	% Change	-2%	-2%	-1%	-2%	-2%	-1%	0%	-20%	-21%	-16%	-3%	-2%	-14%
Alt 13a	% Change	-2%	-2%	-1%	-2%	-2%	-1%	0%	-20%	-22%	-18%	-6%	-2%	-15%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Conditions		7.6	7.0	5.8	4.9	4.5	4.6	8.7	18.1	26.9	18.9	14.0	9.4	10.9
Full Use	Flow	7.6	7.0	5.8	4.9	4.5	4.6	8.7	18.1	25.3	17.6	13.2	9.2	10.5
No Act	Flow	7.6	7.0	5.8	4.9	4.5	4.6	8.7	18.1	25.3	17.6	13.2	9.2	10.5
Alt 1a	Flow	7.6	7.0	5.8	4.9	4.5	4.6	8.7	18.1	25.3	17.6	13.2	9.2	10.5
Alt 1c	Flow	7.6	7.0	5.8	4.9	4.5	4.6	8.7	18.1	25.3	17.6	13.2	9.2	10.5
Alt 8a	Flow	7.6	7.0	5.8	4.9	4.5	4.6	8.7	18.1	25.3	17.6	13.2	9.2	10.5
Alt 10a	Flow	7.6	7.0	5.8	4.9	4.5	4.6	8.7	18.1	25.3	17.6	13.2	9.2	10.5
Alt 13a	Flow	7.6	7.0	5.8	4.9	4.5	4.6	8.7	18.1	25.3	17.6	13.2	9.2	10.5
		Flow change from Current Conditions												
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.6	-1.3	-0.8	-0.2	-0.3
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.6	-1.3	-0.8	-0.2	-0.3
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.6	-1.3	-0.8	-0.2	-0.3
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.6	-1.3	-0.8	-0.2	-0.3
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.6	-1.3	-0.8	-0.2	-0.3
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.6	-1.3	-0.8	-0.2	-0.3
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.6	-1.3	-0.8	-0.2	-0.3
		Percent change in flow from Current Conditions												
Full Use	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-6%	-7%	-6%	-2%	-3%
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-6%	-7%	-6%	-2%	-3%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-6%	-7%	-6%	-2%	-3%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-6%	-7%	-6%	-2%	-3%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-6%	-7%	-6%	-2%	-3%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-6%	-7%	-6%	-2%	-3%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-6%	-7%	-6%	-2%	-3%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Conditions		11.8	9.6	7.8	5.9	5.7	6.1	9.0	48.0	197.8	110.2	43.2	15.8	39.2
Full Use	Flow	11.8	9.6	7.8	5.9	5.7	6.1	9.0	41.6	194.9	105.0	42.1	14.6	37.8
No Act	Flow	11.8	9.6	7.8	5.9	5.7	6.1	9.0	40.8	191.9	102.5	37.9	14.0	36.9
Alt 1a	Flow	11.8	9.6	7.8	5.9	5.7	6.1	9.0	31.2	172.0	101.8	39.9	14.0	34.6
Alt 1c	Flow	11.8	9.6	7.8	5.9	5.7	6.1	9.0	31.3	173.3	103.2	39.8	13.9	34.8
Alt 8a	Flow	11.8	9.6	7.8	5.9	5.7	6.1	9.0	31.4	174.6	102.6	39.9	14.0	34.9
Alt 10a	Flow	11.8	9.6	7.8	5.9	5.7	6.1	9.0	31.3	174.2	102.4	39.9	14.0	34.8
Alt 13a	Flow	11.8	9.6	7.8	5.9	5.7	6.1	9.0	31.2	172.7	102.9	39.8	14.0	34.7
		Flow change from Current Conditions												
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-6.4	-2.9	-5.2	-1.2	-1.2	-1.4
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-7.2	-5.9	-7.7	-5.4	-1.8	-2.3
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-16.8	-25.8	-8.3	-3.3	-1.8	-4.7
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-16.7	-24.5	-6.9	-3.5	-1.9	-4.5
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-16.6	-23.2	-7.5	-3.3	-1.8	-4.4
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-16.7	-23.6	-7.7	-3.3	-1.8	-4.4
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-16.8	-25.0	-7.3	-3.4	-1.8	-4.5
		Percent change in flow from Current Conditions												
Full Use	% Change	0%	0%	0%	0%	0%	0%	0%	-13%	-1%	-5%	-3%	-8%	-4%
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-15%	-3%	-7%	-12%	-11%	-6%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	-35%	-13%	-8%	-8%	-11%	-12%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	-35%	-12%	-6%	-8%	-12%	-11%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	-35%	-12%	-7%	-8%	-11%	-11%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	-35%	-12%	-7%	-8%	-11%	-11%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	-35%	-13%	-7%	-8%	-11%	-12%

Table H-1.43. Below Denver Water's Diversion from King Creek (cfs)

Flow Change and % Change are based on comparisons to Current Conditions														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.2	0.5	0.1	0.0	0.2
Full Use	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.2	0.4	0.1	0.0	0.2
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.1	0.4	0.1	0.0	0.1
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.3	0.0	0.0	0.1
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.3	0.0	0.0	0.1
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.3	0.1	0.0	0.1
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.3	0.1	0.0	0.1
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.3	0.1	0.0	0.1
		Flow change from Current Conditions												
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	0.0	0.0	0.0
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.1	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.5	-0.2	0.0	0.0	-0.1
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.5	-0.2	0.0	0.0	-0.1
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.5	-0.2	0.0	0.0	-0.1
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.5	-0.2	0.0	0.0	-0.1
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.5	-0.2	0.0	0.0	-0.1
		Percent change in flow from Current Conditions												
Full Use	% Change	-41%	-20%	-48%	-17%	0%	-7%	0%	-6%	-5%	-12%	-13%	-60%	-8%
No Act	% Change	-70%	-32%	-48%	0%	0%	-7%	0%	-26%	-14%	-17%	-26%	-85%	-16%
Alt 1a	% Change	-100%	-97%	-99%	-100%	-100%	-96%	0%	-93%	-44%	-40%	-47%	-92%	-47%
Alt 1c	% Change	-100%	-97%	-99%	-100%	-100%	-96%	0%	-93%	-44%	-41%	-50%	-100%	-47%
Alt 8a	% Change	-100%	-97%	-99%	-100%	-100%	-96%	0%	-93%	-43%	-32%	-21%	-92%	-43%
Alt 10a	% Change	-100%	-97%	-99%	-100%	-100%	-96%	0%	-93%	-43%	-32%	-21%	-92%	-43%
Alt 13a	% Change	-100%	-97%	-99%	-100%	-100%	-96%	0%	-93%	-44%	-37%	-37%	-92%	-46%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Conditions		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Full Use	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Flow change from Current Conditions												
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Percent change in flow from Current Conditions												
Full Use	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Conditions		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	3.0	1.6	0.5	0.0	0.5
Full Use	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	2.8	1.4	0.4	0.0	0.4
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	2.7	1.4	0.4	0.0	0.4
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.3	1.4	0.4	0.0	0.3
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.3	1.4	0.4	0.0	0.4
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.3	1.4	0.4	0.0	0.4
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.3	1.4	0.4	0.0	0.4
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.3	1.4	0.4	0.0	0.3
		Flow change from Current Conditions												
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.2	-0.1	-0.1	0.0	0.0
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.3	-0.1	-0.1	0.0	-0.1
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.4	-0.7	-0.1	-0.1	0.0	-0.1
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.4	-0.7	-0.1	-0.1	0.0	-0.1
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.4	-0.7	-0.1	-0.1	0.0	-0.1
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.4	-0.7	-0.1	-0.1	0.0	-0.1
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.4	-0.7	-0.1	-0.1	0.0	-0.1
		Percent change in flow from Current Conditions												
Full Use	% Change	0%	0%	0%	0%	0%	-67%	0%	-20%	-7%	-7%	-15%	-60%	-9%
No Act	% Change	0%	0%	0%	0%	0%	-67%	0%	-24%	-11%	-10%	-28%	-85%	-14%
Alt 1a	% Change	0%	0%	0%	0%	0%	-67%	0%	-81%	-24%	-8%	-25%	-92%	-25%
Alt 1c	% Change	0%	0%	0%	0%	0%	-67%	0%	-81%	-23%	-8%	-26%	-100%	-25%
Alt 8a	% Change	0%	0%	0%	0%	0%	-67%	0%	-81%	-23%	-7%	-25%	-92%	-24%
Alt 10a	% Change	0%	0%	0%	0%	0%	-67%	0%	-81%	-23%	-8%	-25%	-92%	-24%
Alt 13a	% Change	0%	0%	0%	0%	0%	-67%	0%	-81%	-24%	-9%	-25%	-92%	-25%

Table H-1.44. Fraser River below St. Louis Creek (cfs)

Flow Change and % Change are based on comparisons to Current Conditions														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		13.9	17.3	15.1	14.3	13.9	15.3	36.4	97.0	250.4	98.4	36.4	19.5	52.3
Full Use	Flow	7.2	10.3	8.0	7.0	6.7	8.5	28.7	87.7	229.5	79.9	26.4	12.3	42.7
No Act	Flow	7.0	10.2	8.0	7.3	6.7	8.5	28.7	82.8	213.2	77.6	25.5	12.2	40.6
Alt 1a	Flow	6.9	10.1	7.7	6.7	6.4	8.4	28.7	70.5	159.4	62.5	24.1	12.2	33.6
Alt 1c	Flow	6.9	10.1	7.7	6.7	6.4	8.4	28.7	70.6	161.1	62.4	24.1	12.1	33.7
Alt 8a	Flow	6.9	10.1	7.7	6.7	6.4	8.4	28.7	70.6	162.8	67.5	25.8	12.2	34.5
Alt 10a	Flow	6.9	10.1	7.7	6.7	6.4	8.4	28.7	70.5	162.7	67.4	25.8	12.2	34.4
Alt 13a	Flow	6.9	10.1	7.7	6.7	6.4	8.4	28.7	70.5	160.3	64.9	24.9	12.2	34.0
		Flow change from Current Conditions												
Full Use	Flow Change	-6.8	-7.0	-7.2	-7.2	-7.2	-6.8	-7.7	-9.3	-20.8	-18.5	-10.0	-7.2	-9.6
No Act	Flow Change	-6.9	-7.1	-7.1	-7.0	-7.2	-6.8	-7.7	-14.3	-37.2	-20.8	-10.9	-7.3	-11.7
Alt 1a	Flow Change	-7.0	-7.2	-7.4	-7.6	-7.6	-6.9	-7.7	-26.5	-91.0	-35.9	-12.4	-7.3	-18.7
Alt 1c	Flow Change	-7.0	-7.2	-7.4	-7.6	-7.6	-6.9	-7.7	-26.5	-89.3	-36.0	-12.4	-7.3	-18.6
Alt 8a	Flow Change	-7.0	-7.2	-7.4	-7.6	-7.6	-6.9	-7.7	-26.5	-87.6	-31.0	-10.6	-7.3	-17.9
Alt 10a	Flow Change	-7.0	-7.2	-7.4	-7.6	-7.6	-6.9	-7.7	-26.5	-87.6	-31.0	-10.6	-7.3	-17.9
Alt 13a	Flow Change	-7.0	-7.2	-7.4	-7.6	-7.6	-6.9	-7.7	-26.5	-90.0	-33.6	-11.6	-7.3	-18.4
		Percent change in flow from Current Conditions												
Full Use	% Change	-49%	-41%	-47%	-51%	-52%	-44%	-21%	-10%	-8%	-19%	-27%	-37%	-18%
No Act	% Change	-49%	-41%	-47%	-49%	-52%	-44%	-21%	-15%	-15%	-21%	-30%	-38%	-22%
Alt 1a	% Change	-50%	-42%	-49%	-53%	-54%	-45%	-21%	-27%	-36%	-37%	-34%	-38%	-36%
Alt 1c	% Change	-50%	-42%	-49%	-53%	-54%	-45%	-21%	-27%	-36%	-37%	-34%	-38%	-36%
Alt 8a	% Change	-50%	-42%	-49%	-53%	-54%	-45%	-21%	-27%	-35%	-31%	-29%	-38%	-34%
Alt 10a	% Change	-50%	-42%	-49%	-53%	-54%	-45%	-21%	-27%	-35%	-32%	-29%	-38%	-34%
Alt 13a	% Change	-50%	-42%	-49%	-53%	-54%	-45%	-21%	-27%	-36%	-34%	-32%	-38%	-35%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Conditions		10.0	15.2	13.2	11.9	12.3	12.9	30.3	37.3	35.1	25.8	23.8	14.0	20.1
Full Use	Flow	3.5	8.7	6.6	5.3	5.4	6.1	22.2	29.5	21.9	12.1	13.5	6.4	11.8
No Act	Flow	3.5	8.7	6.6	5.3	5.4	6.1	22.2	29.5	21.9	12.1	13.5	6.4	11.8
Alt 1a	Flow	3.5	8.7	6.6	5.3	5.4	6.1	22.2	29.5	21.9	12.1	13.5	6.4	11.8
Alt 1c	Flow	3.5	8.7	6.6	5.3	5.4	6.1	22.2	29.5	21.9	12.1	13.5	6.4	11.8
Alt 8a	Flow	3.5	8.7	6.6	5.3	5.4	6.1	22.2	29.5	21.9	12.1	13.5	6.4	11.8
Alt 10a	Flow	3.5	8.7	6.6	5.3	5.4	6.1	22.2	29.5	21.9	12.1	13.5	6.4	11.8
Alt 13a	Flow	3.5	8.7	6.6	5.3	5.4	6.1	22.2	29.5	21.9	12.1	13.5	6.4	11.8
		Flow change from Current Conditions												
Full Use	Flow Change	-6.5	-6.5	-6.5	-6.6	-6.9	-6.8	-8.1	-7.8	-13.3	-13.8	-10.3	-7.6	-8.4
No Act	Flow Change	-6.5	-6.5	-6.5	-6.6	-6.9	-6.8	-8.1	-7.8	-13.3	-13.8	-10.3	-7.6	-8.4
Alt 1a	Flow Change	-6.5	-6.5	-6.5	-6.6	-6.9	-6.8	-8.1	-7.8	-13.3	-13.8	-10.3	-7.6	-8.4
Alt 1c	Flow Change	-6.5	-6.5	-6.5	-6.6	-6.9	-6.8	-8.1	-7.8	-13.3	-13.8	-10.3	-7.6	-8.4
Alt 8a	Flow Change	-6.5	-6.5	-6.5	-6.6	-6.9	-6.8	-8.1	-7.8	-13.3	-13.8	-10.3	-7.6	-8.4
Alt 10a	Flow Change	-6.5	-6.5	-6.5	-6.6	-6.9	-6.8	-8.1	-7.8	-13.3	-13.8	-10.3	-7.6	-8.4
Alt 13a	Flow Change	-6.5	-6.5	-6.5	-6.6	-6.9	-6.8	-8.1	-7.8	-13.3	-13.8	-10.3	-7.6	-8.4
		Percent change in flow from Current Conditions												
Full Use	% Change	-65%	-43%	-50%	-55%	-56%	-53%	-27%	-21%	-38%	-53%	-43%	-54%	-42%
No Act	% Change	-65%	-43%	-50%	-55%	-56%	-53%	-27%	-21%	-38%	-53%	-43%	-54%	-42%
Alt 1a	% Change	-65%	-43%	-50%	-55%	-56%	-53%	-27%	-21%	-38%	-53%	-43%	-54%	-42%
Alt 1c	% Change	-65%	-43%	-50%	-55%	-56%	-53%	-27%	-21%	-38%	-53%	-43%	-54%	-42%
Alt 8a	% Change	-65%	-43%	-50%	-55%	-56%	-53%	-27%	-21%	-38%	-53%	-43%	-54%	-42%
Alt 10a	% Change	-65%	-43%	-50%	-55%	-56%	-53%	-27%	-21%	-38%	-53%	-43%	-54%	-42%
Alt 13a	% Change	-65%	-43%	-50%	-55%	-56%	-53%	-27%	-21%	-38%	-53%	-43%	-54%	-42%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Conditions		21.7	21.9	18.3	15.5	15.5	16.1	51.5	189.6	560.6	240.6	72.5	25.3	104.1
Full Use	Flow	15.0	15.0	11.0	8.5	8.4	9.9	44.2	167.0	530.6	214.0	58.1	17.0	91.6
No Act	Flow	15.0	15.0	11.0	8.5	8.4	9.9	44.2	162.2	513.0	208.2	51.9	15.9	88.6
Alt 1a	Flow	15.0	15.0	11.0	8.5	8.4	9.9	44.2	130.4	436.8	209.0	54.3	15.8	79.9
Alt 1c	Flow	15.0	15.0	11.0	8.5	8.4	9.9	44.2	130.7	442.5	211.2	54.9	15.7	80.6
Alt 8a	Flow	15.0	15.0	11.0	8.5	8.4	9.9	44.2	130.6	440.6	209.6	54.4	15.8	80.2
Alt 10a	Flow	15.0	15.0	11.0	8.5	8.4	9.9	44.2	130.5	440.0	209.6	54.4	15.8	80.2
Alt 13a	Flow	15.0	15.0	11.0	8.5	8.4	9.9	44.2	130.4	439.3	209.0	54.3	15.8	80.1
		Flow change from Current Conditions												
Full Use	Flow Change	-6.7	-6.9	-7.4	-7.0	-7.1	-6.2	-7.3	-22.6	-30.0	-26.6	-14.4	-8.3	-12.5
No Act	Flow Change	-6.7	-6.9	-7.4	-7.0	-7.1	-6.2	-7.3	-27.4	-47.5	-32.4	-20.6	-9.5	-15.5
Alt 1a	Flow Change	-6.7	-7.0	-7.4	-7.0	-7.1	-6.2	-7.3	-59.3	-123.7	-31.6	-18.2	-9.5	-24.2
Alt 1c	Flow Change	-6.7	-7.0	-7.4	-7.0	-7.1	-6.2	-7.3	-59.0	-118.1	-29.4	-17.6	-9.6	-23.5
Alt 8a	Flow Change	-6.7	-7.0	-7.4	-7.0	-7.1	-6.2	-7.3	-59.0	-119.9	-31.0	-18.1	-9.5	-23.8
Alt 10a	Flow Change	-6.7	-7.0	-7.4	-7.0	-7.1	-6.2	-7.3	-59.2	-120.5	-31.0	-18.1	-9.5	-23.9
Alt 13a	Flow Change	-6.7	-7.0	-7.4	-7.0	-7.1	-6.2	-7.3	-59.2	-121.2	-31.6	-18.3	-9.5	-24.0
		Percent change in flow from Current Conditions												
Full Use	% Change	-31%	-32%	-40%	-45%	-46%	-38%	-14%	-12%	-5%	-11%	-20%	-33%	-12%
No Act	% Change	-31%	-32%	-40%	-45%	-46%	-38%	-14%	-14%	-8%	-13%	-28%	-37%	-15%
Alt 1a	% Change	-31%	-32%	-40%	-45%	-46%	-38%	-14%	-31%	-22%	-13%	-25%	-38%	-23%
Alt 1c	% Change	-31%	-32%	-40%	-45%	-46%	-38%	-14%	-31%	-21%	-12%	-24%	-38%	-23%
Alt 8a	% Change	-31%	-32%	-40%	-45%	-46%	-38%	-14%	-31%	-21%	-13%	-25%	-38%	-23%
Alt 10a	% Change	-31%	-32%	-40%	-45%	-46%	-38%	-14%	-31%	-22%	-13%	-25%	-38%	-23%
Alt 13a	% Change	-31%	-32%	-40%	-45%	-46%	-38%	-14%	-31%	-22%	-13%	-25%	-38%	-23%

Table H-1.45. Below Denver Water's Englewood Ranch Gravity System Diversions (cfs)

Flow Change and % Change are based on comparisons to Current Conditions														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		4.7	4.0	3.4	2.3	2.4	2.8	3.3	16.3	60.8	16.6	5.9	4.2	10.5
Full Use	Flow	4.6	4.0	3.4	2.3	2.4	2.8	3.3	16.0	60.8	16.0	5.9	4.2	10.5
No Act	Flow	4.6	4.0	3.4	2.3	2.4	2.8	3.3	15.7	60.3	15.5	5.8	4.2	10.4
Alt 1a	Flow	4.6	4.0	3.4	2.3	2.4	2.8	3.3	14.9	59.4	14.8	5.5	4.2	10.1
Alt 1c	Flow	4.6	4.0	3.4	2.3	2.4	2.8	3.3	14.9	59.5	14.7	5.5	4.2	10.1
Alt 8a	Flow	4.6	4.0	3.4	2.3	2.4	2.8	3.3	14.9	59.4	15.1	5.8	4.2	10.2
Alt 10a	Flow	4.6	4.0	3.4	2.3	2.4	2.8	3.3	14.9	59.4	15.1	5.8	4.2	10.2
Alt 13a	Flow	4.6	4.0	3.4	2.3	2.4	2.8	3.3	14.9	59.4	14.9	5.6	4.2	10.2
Flow change from Current Conditions														
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	0.0	-0.6	0.0	0.0	-0.1
No Act	Flow Change	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.5	-0.5	-1.1	-0.1	0.0	-0.2
Alt 1a	Flow Change	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-1.4	-1.3	-1.9	-0.4	0.0	-0.4
Alt 1c	Flow Change	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-1.4	-1.3	-1.9	-0.4	-0.1	-0.4
Alt 8a	Flow Change	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-1.4	-1.3	-1.5	-0.1	0.0	-0.4
Alt 10a	Flow Change	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-1.4	-1.3	-1.5	-0.1	0.0	-0.4
Alt 13a	Flow Change	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-1.4	-1.3	-1.7	-0.3	0.0	-0.4
Percent change in flow from Current Conditions														
Full Use	% Change	-1%	0%	0%	0%	0%	0%	0%	-2%	0%	-4%	-1%	-1%	-1%
No Act	% Change	-1%	0%	0%	0%	0%	0%	0%	-3%	-1%	-7%	-2%	-1%	-2%
Alt 1a	% Change	-1%	0%	0%	0%	0%	0%	0%	-8%	-2%	-11%	-6%	-1%	-4%
Alt 1c	% Change	-1%	0%	0%	0%	0%	0%	0%	-8%	-2%	-11%	-7%	-1%	-4%
Alt 8a	% Change	-1%	0%	0%	0%	0%	0%	0%	-8%	-2%	-9%	-1%	-1%	-3%
Alt 10a	% Change	-1%	0%	0%	0%	0%	0%	0%	-8%	-2%	-9%	-1%	-1%	-3%
Alt 13a	% Change	-1%	0%	0%	0%	0%	0%	0%	-8%	-2%	-10%	-5%	-1%	-4%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Current Conditions		4.7	4.1	3.0	2.2	2.3	2.9	3.4	5.9	16.3	4.7	5.0	4.1	4.9
Full Use	Flow	4.7	4.1	3.0	2.2	2.3	2.9	3.4	5.9	16.3	4.8	5.0	4.1	4.9
No Act	Flow	4.7	4.1	3.0	2.2	2.3	2.9	3.4	5.9	16.3	4.8	5.0	4.1	4.9
Alt 1a	Flow	4.7	4.1	3.0	2.2	2.3	2.9	3.4	5.9	16.3	4.8	5.0	4.1	4.9
Alt 1c	Flow	4.7	4.1	3.0	2.2	2.3	2.9	3.4	5.9	16.3	4.8	5.0	4.1	4.9
Alt 8a	Flow	4.7	4.1	3.0	2.2	2.3	2.9	3.4	5.9	16.3	4.8	5.0	4.1	4.9
Alt 10a	Flow	4.7	4.1	3.0	2.2	2.3	2.9	3.4	5.9	16.3	4.8	5.0	4.1	4.9
Alt 13a	Flow	4.7	4.1	3.0	2.2	2.3	2.9	3.4	5.9	16.3	4.8	5.0	4.1	4.9
Flow change from Current Conditions														
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent change in flow from Current Conditions														
Full Use	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Current Conditions		5.2	4.3	4.3	2.8	2.9	2.8	3.5	26.2	101.6	36.3	9.4	5.4	17.0
Full Use	Flow	5.2	4.3	4.3	2.8	2.9	2.8	3.5	23.6	101.6	35.7	9.1	5.2	16.7
No Act	Flow	5.2	4.3	4.3	2.8	2.9	2.8	3.5	23.3	101.5	35.1	8.6	5.1	16.6
Alt 1a	Flow	5.2	4.3	4.3	2.8	2.9	2.8	3.5	20.7	99.5	35.4	8.9	5.1	16.3
Alt 1c	Flow	5.2	4.3	4.3	2.8	2.9	2.8	3.5	20.7	99.5	35.4	9.0	5.1	16.3
Alt 8a	Flow	5.2	4.3	4.3	2.8	2.9	2.8	3.5	20.7	99.5	35.4	8.9	5.1	16.3
Alt 10a	Flow	5.2	4.3	4.3	2.8	2.9	2.8	3.5	20.7	99.5	35.4	8.9	5.1	16.3
Alt 13a	Flow	5.2	4.3	4.3	2.8	2.9	2.8	3.5	20.7	99.5	35.4	8.9	5.1	16.3
Flow change from Current Conditions														
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-2.6	-0.1	-0.7	-0.3	-0.2	-0.3
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-2.9	-0.1	-1.2	-0.8	-0.3	-0.4
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-5.5	-2.2	-0.9	-0.5	-0.3	-0.8
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-5.5	-2.2	-0.9	-0.4	-0.3	-0.8
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-5.5	-2.2	-0.9	-0.5	-0.3	-0.8
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-5.5	-2.2	-1.0	-0.5	-0.3	-0.8
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-5.5	-2.2	-1.0	-0.5	-0.3	-0.8
Percent change in flow from Current Conditions														
Full Use	% Change	0%	0%	0%	0%	0%	0%	0%	-10%	0%	-2%	-3%	-4%	-2%
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-11%	0%	-3%	-9%	-6%	-3%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	-21%	-2%	-3%	-6%	-6%	-5%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	-21%	-2%	-3%	-4%	-6%	-5%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	-21%	-2%	-3%	-6%	-6%	-5%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	-21%	-2%	-3%	-6%	-6%	-5%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	-21%	-2%	-3%	-6%	-6%	-5%

Table H-1.46. Below Denver Water's Diversions from North Fork Ranch Creek and Dribble Creek (cfs)

Flow Change and % Change are based on comparisons to Current Conditions														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		0.1	0.1	0.1	0.1	0.1	0.0	0.1	2.1	15.5	5.7	0.6	0.2	2.0
Full Use	Flow	0.1	0.1	0.1	0.1	0.1	0.0	0.1	2.0	15.4	5.2	0.6	0.1	2.0
No Act	Flow	0.1	0.1	0.1	0.1	0.1	0.0	0.1	1.7	14.9	5.0	0.5	0.1	1.9
Alt 1a	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.1	1.2	11.8	4.2	0.4	0.1	1.5
Alt 1c	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.1	1.2	11.9	4.2	0.4	0.1	1.5
Alt 8a	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.1	1.2	12.1	4.5	0.5	0.1	1.6
Alt 10a	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.1	1.2	12.1	4.5	0.5	0.1	1.6
Alt 13a	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.1	1.2	11.9	4.3	0.4	0.1	1.5
Flow change from Current Conditions														
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.5	0.0	0.0	-0.1
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.4	-0.6	-0.7	-0.1	0.0	-0.2
Alt 1a	Flow Change	0.0	-0.1	-0.1	0.0	0.0	0.0	0.0	-0.9	-3.6	-1.5	-0.2	0.0	-0.5
Alt 1c	Flow Change	0.0	-0.1	-0.1	0.0	0.0	0.0	0.0	-0.9	-3.5	-1.5	-0.3	0.0	-0.5
Alt 8a	Flow Change	0.0	-0.1	-0.1	0.0	0.0	0.0	0.0	-0.9	-3.4	-1.2	-0.1	0.0	-0.5
Alt 10a	Flow Change	0.0	-0.1	-0.1	0.0	0.0	0.0	0.0	-0.9	-3.4	-1.2	-0.1	0.0	-0.5
Alt 13a	Flow Change	0.0	-0.1	-0.1	0.0	0.0	0.0	0.0	-0.9	-3.5	-1.3	-0.2	0.0	-0.5
Percent change in flow from Current Conditions														
Full Use	% Change	-18%	-32%	-41%	-24%	-5%	-10%	3%	-6%	-1%	-9%	-7%	-14%	-4%
No Act	% Change	-18%	-32%	-41%	2%	-5%	-10%	3%	-20%	-4%	-13%	-17%	-14%	-8%
Alt 1a	% Change	-32%	-73%	-65%	-62%	-81%	-40%	3%	-44%	-23%	-26%	-40%	-14%	-27%
Alt 1c	% Change	-32%	-73%	-65%	-62%	-81%	-40%	3%	-44%	-23%	-26%	-42%	-14%	-26%
Alt 8a	% Change	-32%	-73%	-65%	-62%	-81%	-40%	3%	-44%	-22%	-21%	-12%	-14%	-24%
Alt 10a	% Change	-32%	-73%	-65%	-62%	-81%	-40%	3%	-44%	-22%	-20%	-12%	-14%	-24%
Alt 13a	% Change	-32%	-73%	-65%	-62%	-81%	-40%	3%	-44%	-23%	-24%	-30%	-14%	-25%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Conditions		0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.5	0.1	0.0	0.1
Full Use	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.6	0.1	0.0	0.2
No Act	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.6	0.1	0.0	0.2
Alt 1a	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.6	0.1	0.0	0.2
Alt 1c	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.6	0.1	0.0	0.2
Alt 8a	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.6	0.1	0.0	0.2
Alt 10a	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.6	0.1	0.0	0.2
Alt 13a	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.6	0.1	0.0	0.2
Flow change from Current Conditions														
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0
Percent change in flow from Current Conditions														
Full Use	% Change	-2%	8%	0%	0%	0%	0%	0%	15%	19%	20%	-2%	0%	17%
No Act	% Change	-2%	8%	0%	0%	0%	0%	0%	15%	19%	20%	-2%	0%	17%
Alt 1a	% Change	-2%	8%	0%	0%	0%	0%	0%	15%	19%	20%	-2%	0%	17%
Alt 1c	% Change	-2%	8%	0%	0%	0%	0%	0%	15%	19%	20%	-2%	0%	17%
Alt 8a	% Change	-2%	8%	0%	0%	0%	0%	0%	15%	19%	20%	-2%	0%	17%
Alt 10a	% Change	-2%	8%	0%	0%	0%	0%	0%	15%	19%	20%	-2%	0%	17%
Alt 13a	% Change	-2%	8%	0%	0%	0%	0%	0%	15%	19%	20%	-2%	0%	17%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Conditions		0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2	32.3	13.3	2.0	0.4	4.5
Full Use	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	32.2	13.0	2.0	0.3	4.3
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4	32.0	12.6	1.6	0.2	4.2
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	28.6	12.7	1.8	0.2	3.9
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	28.7	12.6	1.8	0.2	3.9
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	28.7	12.6	1.8	0.2	3.9
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	28.6	12.6	1.8	0.2	3.9
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	28.7	12.8	1.8	0.2	3.9
Flow change from Current Conditions														
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.7	-0.1	-0.2	-0.1	-0.1	-0.2
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.9	-0.3	-0.7	-0.4	-0.1	-0.3
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.1	-3.7	-0.6	-0.3	-0.1	-0.7
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.1	-3.7	-0.7	-0.2	-0.1	-0.7
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.1	-3.7	-0.6	-0.3	-0.1	-0.7
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.1	-3.7	-0.6	-0.3	-0.1	-0.7
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.1	-3.7	-0.5	-0.3	-0.1	-0.6
Percent change in flow from Current Conditions														
Full Use	% Change	15%	-1%	-12%	54%	0%	54%	-100%	-28%	0%	-2%	-3%	-27%	-4%
No Act	% Change	15%	-1%	-12%	54%	0%	54%	-100%	-30%	-1%	-5%	-22%	-40%	-6%
Alt 1a	% Change	15%	-1%	-12%	54%	0%	54%	-100%	-50%	-12%	-4%	-13%	-40%	-14%
Alt 1c	% Change	15%	-1%	-12%	54%	0%	54%	-100%	-50%	-11%	-5%	-12%	-38%	-14%
Alt 8a	% Change	15%	-1%	-12%	54%	0%	54%	-100%	-50%	-11%	-5%	-13%	-40%	-14%
Alt 10a	% Change	15%	-1%	-12%	54%	0%	54%	-100%	-50%	-12%	-5%	-13%	-40%	-15%
Alt 13a	% Change	15%	-1%	-12%	54%	0%	54%	-100%	-50%	-11%	-4%	-13%	-40%	-14%

Table H-1.47. Below Denver Water's Diversion from Main Ranch Creek (cfs)

Flow Change and % Change are based on comparisons to Current Conditions														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		1.4	1.4	1.2	1.0	0.9	0.8	1.3	4.9	20.3	8.9	3.1	1.8	3.9
Full Use	Flow	1.4	1.4	1.2	1.0	0.9	0.8	1.3	4.8	20.2	8.4	3.0	1.7	3.9
No Act	Flow	1.4	1.4	1.2	1.0	0.9	0.8	1.3	4.5	19.5	8.1	3.0	1.7	3.7
Alt 1a	Flow	1.4	1.4	1.2	1.0	0.9	0.8	1.3	3.8	15.9	7.3	2.9	1.7	3.3
Alt 1c	Flow	1.4	1.4	1.2	1.0	0.9	0.8	1.3	3.8	16.0	7.3	2.9	1.7	3.3
Alt 8a	Flow	1.4	1.4	1.2	1.0	0.9	0.8	1.3	3.8	16.2	7.7	3.0	1.7	3.4
Alt 10a	Flow	1.4	1.4	1.2	1.0	0.9	0.8	1.3	3.8	16.1	7.7	3.0	1.7	3.4
Alt 13a	Flow	1.4	1.4	1.2	1.0	0.9	0.8	1.3	3.8	16.0	7.5	3.0	1.7	3.3
		Flow change from Current Conditions												
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.6	0.0	0.0	-0.1
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.4	-0.8	-0.8	-0.1	0.0	-0.2
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.1	-4.5	-1.7	-0.2	0.0	-0.6
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.1	-4.3	-1.6	-0.2	0.0	-0.6
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.1	-4.1	-1.3	0.0	0.0	-0.6
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.1	-4.2	-1.3	0.0	0.0	-0.6
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.1	-4.3	-1.5	-0.1	0.0	-0.6
		Percent change in flow from Current Conditions												
Full Use	% Change	-2%	0%	0%	0%	0%	0%	1%	-2%	-1%	-6%	-1%	-1%	-2%
No Act	% Change	-2%	0%	0%	0%	0%	0%	1%	-8%	-4%	-9%	-2%	-1%	-5%
Alt 1a	% Change	-2%	-1%	0%	0%	0%	0%	1%	-22%	-22%	-18%	-5%	-1%	-16%
Alt 1c	% Change	-2%	-1%	0%	0%	0%	0%	1%	-22%	-21%	-18%	-5%	-1%	-15%
Alt 8a	% Change	-2%	-1%	0%	0%	0%	0%	1%	-22%	-20%	-14%	-1%	-1%	-14%
Alt 10a	% Change	-2%	-1%	0%	0%	0%	0%	1%	-22%	-21%	-14%	-1%	-1%	-14%
Alt 13a	% Change	-2%	-1%	0%	0%	0%	0%	1%	-22%	-21%	-16%	-4%	-1%	-15%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Conditions		1.2	1.2	1.0	0.9	0.7	0.6	1.3	2.9	4.1	2.9	2.2	1.5	1.7
Full Use	Flow	1.2	1.2	1.0	0.9	0.7	0.6	1.3	2.9	3.5	2.6	2.0	1.3	1.6
No Act	Flow	1.2	1.2	1.0	0.9	0.7	0.6	1.3	2.9	3.5	2.6	2.0	1.3	1.6
Alt 1a	Flow	1.2	1.2	1.0	0.9	0.7	0.6	1.3	2.9	3.5	2.6	2.0	1.3	1.6
Alt 1c	Flow	1.2	1.2	1.0	0.9	0.7	0.6	1.3	2.9	3.5	2.6	2.0	1.3	1.6
Alt 8a	Flow	1.2	1.2	1.0	0.9	0.7	0.6	1.3	2.9	3.5	2.6	2.0	1.3	1.6
Alt 10a	Flow	1.2	1.2	1.0	0.9	0.7	0.6	1.3	2.9	3.5	2.6	2.0	1.3	1.6
Alt 13a	Flow	1.2	1.2	1.0	0.9	0.7	0.6	1.3	2.9	3.5	2.6	2.0	1.3	1.6
		Flow change from Current Conditions												
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.6	-0.3	-0.2	-0.2	-0.1
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.6	-0.3	-0.2	-0.2	-0.1
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.6	-0.3	-0.2	-0.2	-0.1
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.6	-0.3	-0.2	-0.2	-0.1
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.6	-0.3	-0.2	-0.2	-0.1
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.6	-0.3	-0.2	-0.2	-0.1
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.6	-0.3	-0.2	-0.2	-0.1
		Percent change in flow from Current Conditions												
Full Use	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-14%	-10%	-11%	-12%	-6%
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-14%	-10%	-11%	-12%	-6%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-14%	-10%	-11%	-12%	-6%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-14%	-10%	-11%	-12%	-6%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-14%	-10%	-11%	-12%	-6%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-14%	-10%	-11%	-12%	-6%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-14%	-10%	-11%	-12%	-6%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Conditions		1.6	1.7	1.4	1.2	1.0	0.9	1.3	9.6	41.2	17.8	4.6	2.1	7.0
Full Use	Flow	1.6	1.7	1.4	1.2	1.0	0.9	1.3	7.9	41.0	17.8	4.6	2.1	6.9
No Act	Flow	1.6	1.7	1.4	1.2	1.0	0.9	1.3	7.7	40.8	17.3	4.5	2.1	6.8
Alt 1a	Flow	1.6	1.7	1.4	1.2	1.0	0.9	1.3	6.3	36.8	17.5	4.5	2.1	6.4
Alt 1c	Flow	1.6	1.7	1.4	1.2	1.0	0.9	1.3	6.3	37.1	17.5	4.5	2.1	6.4
Alt 8a	Flow	1.6	1.7	1.4	1.2	1.0	0.9	1.3	6.3	37.1	17.5	4.5	2.1	6.4
Alt 10a	Flow	1.6	1.7	1.4	1.2	1.0	0.9	1.3	6.3	36.9	17.5	4.5	2.1	6.4
Alt 13a	Flow	1.6	1.7	1.4	1.2	1.0	0.9	1.3	6.3	37.0	17.6	4.5	2.1	6.4
		Flow change from Current Conditions												
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.7	-0.2	0.0	0.0	0.0	-0.2
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.9	-0.4	-0.5	-0.1	0.0	-0.2
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.3	-4.3	-0.3	-0.1	0.0	-0.7
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.3	-4.1	-0.3	-0.1	0.0	-0.6
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.3	-4.1	-0.3	-0.1	0.0	-0.6
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.3	-4.2	-0.3	-0.1	0.0	-0.7
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.3	-4.2	-0.2	-0.1	0.0	-0.6
		Percent change in flow from Current Conditions												
Full Use	% Change	0%	0%	0%	0%	0%	0%	0%	-18%	0%	0%	0%	0%	-2%
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-20%	-1%	-3%	-3%	0%	-3%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	-34%	-11%	-2%	-2%	0%	-9%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	-34%	-10%	-2%	-2%	0%	-9%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	-34%	-10%	-2%	-2%	0%	-9%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	-34%	-10%	-1%	-2%	0%	-9%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	-34%	-10%	-1%	-2%	0%	-9%

Table H-1.48. Below Denver Water's Diversions from Middle and South Fork of Ranch Creek (cfs)

Flow Change and % Change are based on comparisons to Current Conditions														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		0.1	0.1	0.1	0.1	0.1	0.0	0.0	2.9	24.8	9.0	0.8	0.1	3.2
Full Use	Flow	0.1	0.0	0.0	0.1	0.1	0.0	0.0	2.7	24.7	7.9	0.8	0.0	3.0
No Act	Flow	0.1	0.0	0.0	0.1	0.1	0.0	0.0	2.1	23.3	7.4	0.7	0.0	2.8
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	16.1	5.8	0.4	0.0	1.9
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	16.3	5.9	0.4	0.0	1.9
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	16.7	6.5	0.7	0.0	2.1
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	16.7	6.5	0.7	0.0	2.1
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	16.3	6.2	0.5	0.0	2.0
Flow change from Current Conditions														
Full Use	Flow Change	0.0	-0.1	-0.1	0.0	0.0	0.0	0.0	-0.2	-0.1	-1.0	-0.1	0.0	-0.1
No Act	Flow Change	0.0	-0.1	-0.1	0.0	0.0	0.0	0.0	-0.8	-1.5	-1.5	-0.2	0.0	-0.4
Alt 1a	Flow Change	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	-2.3	-8.7	-3.1	-0.4	0.0	-1.3
Alt 1c	Flow Change	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	-2.3	-8.5	-3.0	-0.5	0.0	-1.2
Alt 8a	Flow Change	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	-2.3	-8.1	-2.5	-0.1	0.0	-1.1
Alt 10a	Flow Change	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	-2.3	-8.1	-2.4	-0.1	0.0	-1.1
Alt 13a	Flow Change	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	-2.3	-8.5	-2.8	-0.3	0.0	-1.2
Percent change in flow from Current Conditions														
Full Use	% Change	-33%	-53%	-62%	-35%	0%	0%	0%	-8%	0%	-11%	-9%	-37%	-4%
No Act	% Change	-40%	-61%	-55%	0%	0%	0%	0%	-28%	-6%	-17%	-22%	-58%	-11%
Alt 1a	% Change	-62%	-98%	-98%	-100%	-100%	-82%	0%	-78%	-35%	-35%	-53%	-58%	-39%
Alt 1c	% Change	-62%	-98%	-98%	-100%	-100%	-82%	0%	-78%	-34%	-34%	-55%	-64%	-39%
Alt 8a	% Change	-62%	-98%	-98%	-100%	-100%	-82%	0%	-78%	-33%	-27%	-14%	-58%	-35%
Alt 10a	% Change	-62%	-98%	-98%	-100%	-100%	-82%	0%	-78%	-33%	-27%	-14%	-58%	-35%
Alt 13a	% Change	-62%	-98%	-98%	-100%	-100%	-82%	0%	-78%	-34%	-31%	-41%	-58%	-38%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Current Conditions		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0
Full Use	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0
Flow change from Current Conditions														
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent change in flow from Current Conditions														
Full Use	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Current Conditions		0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.7	59.1	23.4	3.7	0.3	8.1
Full Use	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7	59.0	22.7	3.6	0.2	7.8
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.3	58.4	21.6	2.9	0.1	7.5
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	50.3	21.8	3.2	0.1	6.6
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	50.8	22.0	3.3	0.0	6.7
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	50.9	21.8	3.2	0.1	6.7
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	50.9	21.9	3.2	0.1	6.7
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	50.9	22.1	3.2	0.1	6.7
Flow change from Current Conditions														
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.0	-0.1	-0.8	-0.1	-0.2	-0.4
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.4	-0.7	-1.8	-0.8	-0.3	-0.6
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-6.6	-8.8	-1.7	-0.5	-0.3	-1.5
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-6.6	-8.4	-1.5	-0.5	-0.3	-1.4
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-6.6	-8.2	-1.6	-0.5	-0.3	-1.4
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-6.6	-8.2	-1.5	-0.5	-0.3	-1.4
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-6.6	-8.2	-1.3	-0.5	-0.3	-1.4
Percent change in flow from Current Conditions														
Full Use	% Change	0%	0%	0%	0%	0%	0%	0%	-28%	0%	-3%	-4%	-49%	-4%
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-32%	-1%	-8%	-22%	-77%	-7%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	-62%	-15%	-7%	-14%	-77%	-18%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	-62%	-14%	-6%	-13%	-87%	-18%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	-62%	-14%	-7%	-14%	-77%	-18%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	-62%	-14%	-6%	-14%	-77%	-18%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	-62%	-14%	-6%	-14%	-77%	-17%

Table H-1.49. Fraser River below Crooked Creek (cfs)

Flow Change and % Change are based on comparisons to Current Conditions		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		40.6	37.7	31.6	29.0	29.8	39.4	134.9	291.5	492.0	177.2	63.7	42.3	117.5
Full Use	Flow	40.4	37.2	31.2	28.3	29.4	39.0	134.3	287.0	476.3	162.2	59.2	40.9	113.8
No Act	Flow	40.2	37.2	31.3	28.6	29.4	39.0	134.3	280.7	456.3	158.4	58.0	40.7	111.2
Alt 1a	Flow	40.1	36.9	30.9	27.9	28.8	38.8	134.3	265.2	387.6	139.3	55.8	40.7	102.2
Alt 1c	Flow	40.1	36.9	30.9	27.9	28.8	38.8	134.3	265.2	389.8	139.2	55.7	40.7	102.4
Alt 8a	Flow	40.1	36.9	30.9	27.9	28.8	38.8	134.3	265.2	392.1	145.9	58.4	40.7	103.3
Alt 10a	Flow	40.1	36.9	30.9	27.9	28.8	38.8	134.3	265.2	392.0	145.9	58.4	40.7	103.3
Alt 13a	Flow	40.1	36.9	30.9	27.9	28.8	38.8	134.3	265.2	389.0	142.5	56.9	40.7	102.7
		Flow change from Current Conditions												
Full Use	Flow Change	-0.2	-0.5	-0.4	-0.7	-0.4	-0.4	-0.6	-4.5	-15.8	-14.9	-4.5	-1.4	-3.7
No Act	Flow Change	-0.4	-0.6	-0.3	-0.4	-0.4	-0.4	-0.6	-10.8	-35.8	-18.8	-5.7	-1.6	-6.3
Alt 1a	Flow Change	-0.6	-0.8	-0.6	-1.1	-0.9	-0.6	-0.6	-26.3	-104.4	-37.9	-7.9	-1.6	-15.3
Alt 1c	Flow Change	-0.6	-0.8	-0.6	-1.1	-0.9	-0.6	-0.6	-26.3	-102.2	-38.0	-7.9	-1.6	-15.1
Alt 8a	Flow Change	-0.6	-0.8	-0.6	-1.1	-0.9	-0.6	-0.6	-26.3	-99.9	-31.3	-5.2	-1.6	-14.1
Alt 10a	Flow Change	-0.6	-0.8	-0.6	-1.1	-0.9	-0.6	-0.6	-26.3	-100.0	-31.2	-5.2	-1.6	-14.1
Alt 13a	Flow Change	-0.6	-0.8	-0.6	-1.1	-0.9	-0.6	-0.6	-26.3	-103.1	-34.7	-6.8	-1.6	-14.8
		Percent change in flow from Current Conditions												
Full Use	% Change	-1%	-1%	-1%	-2%	-1%	-1%	0%	-2%	-3%	-8%	-7%	-3%	-3%
No Act	% Change	-1%	-1%	-1%	-1%	-1%	-1%	0%	-4%	-7%	-11%	-9%	-4%	-5%
Alt 1a	% Change	-1%	-2%	-2%	-4%	-3%	-2%	0%	-9%	-21%	-21%	-12%	-4%	-13%
Alt 1c	% Change	-1%	-2%	-2%	-4%	-3%	-2%	0%	-9%	-21%	-21%	-12%	-4%	-13%
Alt 8a	% Change	-1%	-2%	-2%	-4%	-3%	-2%	0%	-9%	-20%	-18%	-8%	-4%	-12%
Alt 10a	% Change	-1%	-2%	-2%	-4%	-3%	-2%	0%	-9%	-20%	-18%	-8%	-4%	-12%
Alt 13a	% Change	-1%	-2%	-2%	-4%	-3%	-2%	0%	-9%	-21%	-20%	-11%	-4%	-13%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Conditions		29.3	33.0	25.9	22.0	24.9	32.2	102.3	110.3	88.4	57.2	46.1	32.9	50.4
Full Use	Flow	29.6	33.1	25.9	21.7	24.6	31.9	101.5	108.4	80.4	49.6	41.3	31.1	48.3
No Act	Flow	29.6	33.1	25.9	21.7	24.6	31.9	101.5	108.4	80.5	49.6	41.3	31.1	48.3
Alt 1a	Flow	29.6	33.1	25.9	21.7	24.6	31.9	101.5	108.4	80.5	49.6	41.3	31.1	48.3
Alt 1c	Flow	29.6	33.1	25.9	21.7	24.6	31.9	101.5	108.4	80.5	49.6	41.3	31.1	48.3
Alt 8a	Flow	29.6	33.1	25.9	21.7	24.6	31.9	101.5	108.4	80.5	49.6	41.3	31.1	48.3
Alt 10a	Flow	29.6	33.1	25.9	21.7	24.6	31.9	101.5	108.4	80.5	49.6	41.3	31.1	48.3
Alt 13a	Flow	29.6	33.1	25.9	21.7	24.6	31.9	101.5	108.4	80.5	49.6	41.3	31.1	48.3
		Flow change from Current Conditions												
Full Use	Flow Change	0.3	0.1	0.0	-0.3	-0.4	-0.3	-0.7	-1.9	-8.0	-7.6	-4.8	-1.9	-2.1
No Act	Flow Change	0.3	0.1	0.0	-0.3	-0.4	-0.3	-0.7	-1.9	-7.9	-7.6	-4.8	-1.9	-2.1
Alt 1a	Flow Change	0.3	0.1	0.0	-0.3	-0.4	-0.3	-0.7	-1.9	-7.9	-7.6	-4.8	-1.9	-2.1
Alt 1c	Flow Change	0.3	0.1	0.0	-0.3	-0.4	-0.3	-0.7	-1.9	-7.9	-7.6	-4.8	-1.9	-2.1
Alt 8a	Flow Change	0.3	0.1	0.0	-0.3	-0.4	-0.3	-0.7	-1.9	-7.9	-7.6	-4.8	-1.9	-2.1
Alt 10a	Flow Change	0.3	0.1	0.0	-0.3	-0.4	-0.3	-0.7	-1.9	-7.9	-7.6	-4.8	-1.9	-2.1
Alt 13a	Flow Change	0.3	0.1	0.0	-0.3	-0.4	-0.3	-0.7	-1.9	-7.9	-7.6	-4.8	-1.9	-2.1
		Percent change in flow from Current Conditions												
Full Use	% Change	1%	0%	0%	-1%	-1%	-1%	-1%	-2%	-9%	-13%	-10%	-6%	-4%
No Act	% Change	1%	0%	0%	-1%	-1%	-1%	-1%	-2%	-9%	-13%	-10%	-6%	-4%
Alt 1a	% Change	1%	0%	0%	-1%	-1%	-1%	-1%	-2%	-9%	-13%	-10%	-6%	-4%
Alt 1c	% Change	1%	0%	0%	-1%	-1%	-1%	-1%	-2%	-9%	-13%	-10%	-6%	-4%
Alt 8a	% Change	1%	0%	0%	-1%	-1%	-1%	-1%	-2%	-9%	-13%	-10%	-6%	-4%
Alt 10a	% Change	1%	0%	0%	-1%	-1%	-1%	-1%	-2%	-9%	-13%	-10%	-6%	-4%
Alt 13a	% Change	1%	0%	0%	-1%	-1%	-1%	-1%	-2%	-9%	-13%	-10%	-6%	-4%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Conditions		72.6	47.4	38.4	35.1	36.3	40.4	200.6	541.9	1,051.1	407.6	114.4	53.7	219.9
Full Use	Flow	72.5	47.3	38.5	34.8	36.0	40.1	199.9	516.1	1,025.6	385.6	105.2	50.7	212.7
No Act	Flow	72.5	47.3	38.5	34.8	36.0	40.1	199.9	510.3	1,005.5	377.2	97.4	49.3	209.1
Alt 1a	Flow	72.5	47.3	38.5	34.8	36.0	40.1	199.9	470.2	911.6	378.9	100.5	49.2	198.3
Alt 1c	Flow	72.5	47.3	38.5	34.8	36.0	40.1	199.9	470.5	918.0	381.0	101.4	49.0	199.1
Alt 8a	Flow	72.5	47.3	38.5	34.8	36.0	40.1	199.9	470.4	916.4	379.4	100.6	49.2	198.8
Alt 10a	Flow	72.5	47.3	38.5	34.8	36.0	40.1	199.9	470.3	915.5	379.5	100.6	49.2	198.7
Alt 13a	Flow	72.5	47.3	38.5	34.8	36.0	40.1	199.9	470.2	914.9	379.3	100.5	49.2	198.6
		Flow change from Current Conditions												
Full Use	Flow Change	0.0	-0.1	0.0	-0.3	-0.3	-0.4	-0.6	-25.8	-25.4	-22.0	-9.2	-3.0	-7.3
No Act	Flow Change	0.0	-0.1	0.0	-0.3	-0.3	-0.4	-0.6	-31.6	-45.5	-30.4	-17.0	-4.4	-10.9
Alt 1a	Flow Change	0.0	-0.1	0.0	-0.3	-0.3	-0.4	-0.6	-71.8	-139.5	-28.7	-13.9	-4.4	-21.7
Alt 1c	Flow Change	0.0	-0.1	0.0	-0.3	-0.3	-0.4	-0.6	-71.4	-133.0	-26.5	-13.0	-4.6	-20.9
Alt 8a	Flow Change	0.0	-0.1	0.0	-0.3	-0.3	-0.4	-0.6	-71.5	-134.7	-28.2	-13.8	-4.4	-21.2
Alt 10a	Flow Change	0.0	-0.1	0.0	-0.3	-0.3	-0.4	-0.6	-71.6	-135.6	-28.0	-13.8	-4.4	-21.3
Alt 13a	Flow Change	0.0	-0.1	0.0	-0.3	-0.3	-0.4	-0.6	-71.7	-136.1	-28.3	-13.9	-4.4	-21.4
		Percent change in flow from Current Conditions												
Full Use	% Change	0%	0%	0%	-1%	-1%	-1%	0%	-5%	-2%	-5%	-8%	-6%	-3%
No Act	% Change	0%	0%	0%	-1%	-1%	-1%	0%	-6%	-4%	-7%	-15%	-8%	-5%
Alt 1a	% Change	0%	0%	0%	-1%	-1%	-1%	0%	-13%	-13%	-7%	-12%	-8%	-10%
Alt 1c	% Change	0%	0%	0%	-1%	-1%	-1%	0%	-13%	-13%	-7%	-11%	-9%	-9%
Alt 8a	% Change	0%	0%	0%	-1%	-1%	-1%	0%	-13%	-13%	-7%	-12%	-8%	-10%
Alt 10a	% Change	0%	0%	0%	-1%	-1%	-1%	0%	-13%	-13%	-7%	-12%	-8%	-10%
Alt 13a	% Change	0%	0%	0%	-1%	-1%	-1%	0%	-13%	-13%	-7%	-12%	-8%	-10%

Table H-1.50. Fraser River at Granby Gage (cfs)

Flow Change and % Change are based on comparisons to Current Conditions		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		43.3	40.8	33.7	31.7	33.3	46.1	168.1	349.9	526.5	185.7	64.3	43.2	130.5
Full Use	Flow	43.0	39.6	32.6	30.9	33.0	45.7	167.4	345.3	509.8	169.3	58.5	41.5	126.4
No Act	Flow	42.9	39.6	32.6	31.2	33.0	45.7	167.4	339.1	489.8	165.5	57.4	41.3	123.8
Alt 1a	Flow	42.7	39.4	32.3	30.4	32.4	45.5	167.4	324.0	420.9	146.2	55.1	41.3	114.8
Alt 1c	Flow	42.7	39.4	32.3	30.4	32.4	45.5	167.4	324.0	423.2	146.1	55.0	41.3	115.0
Alt 8a	Flow	42.7	39.4	32.3	30.4	32.4	45.5	167.4	324.0	425.4	152.8	57.8	41.3	116.0
Alt 10a	Flow	42.7	39.4	32.3	30.4	32.4	45.5	167.4	324.0	425.3	152.9	57.8	41.3	115.9
Alt 13a	Flow	42.7	39.4	32.3	30.4	32.4	45.5	167.4	324.0	422.2	149.4	56.2	41.3	115.3
		Flow change from Current Conditions												
Full Use	Flow Change	-0.3	-1.1	-1.1	-0.8	-0.3	-0.4	-0.6	-4.6	-16.7	-16.4	-5.7	-1.7	-4.1
No Act	Flow Change	-0.4	-1.2	-1.1	-0.5	-0.3	-0.4	-0.6	-10.8	-36.7	-20.2	-6.9	-1.9	-6.8
Alt 1a	Flow Change	-0.6	-1.4	-1.4	-1.2	-0.9	-0.6	-0.6	-25.9	-105.6	-39.5	-9.2	-1.9	-15.7
Alt 1c	Flow Change	-0.6	-1.4	-1.4	-1.2	-0.9	-0.6	-0.6	-25.9	-103.3	-39.6	-9.2	-1.9	-15.6
Alt 8a	Flow Change	-0.6	-1.4	-1.4	-1.2	-0.9	-0.6	-0.6	-25.9	-101.1	-32.9	-6.5	-1.9	-14.6
Alt 10a	Flow Change	-0.6	-1.4	-1.4	-1.2	-0.9	-0.6	-0.6	-25.9	-101.2	-32.8	-6.5	-1.9	-14.6
Alt 13a	Flow Change	-0.6	-1.4	-1.4	-1.2	-0.9	-0.6	-0.6	-25.9	-104.3	-36.3	-8.1	-1.9	-15.3
		Percent change in flow from Current Conditions												
Full Use	% Change	-1%	-3%	-3%	-2%	-1%	-1%	0%	-1%	-3%	-9%	-9%	-4%	-3%
No Act	% Change	-1%	-3%	-3%	-2%	-1%	-1%	0%	-3%	-7%	-11%	-11%	-4%	-5%
Alt 1a	% Change	-1%	-4%	-4%	-4%	-3%	-1%	0%	-7%	-20%	-21%	-14%	-4%	-12%
Alt 1c	% Change	-1%	-4%	-4%	-4%	-3%	-1%	0%	-7%	-20%	-21%	-14%	-4%	-12%
Alt 8a	% Change	-1%	-4%	-4%	-4%	-3%	-1%	0%	-7%	-19%	-18%	-10%	-4%	-11%
Alt 10a	% Change	-1%	-4%	-4%	-4%	-3%	-1%	0%	-7%	-19%	-18%	-10%	-4%	-11%
Alt 13a	% Change	-1%	-4%	-4%	-4%	-3%	-1%	0%	-7%	-20%	-20%	-13%	-4%	-12%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Conditions		30.4	34.6	26.8	23.0	27.4	37.1	123.0	120.3	89.5	56.5	46.9	33.1	54.1
Full Use	Flow	30.7	34.0	26.1	22.6	27.1	36.7	122.3	118.2	80.5	47.6	40.9	31.0	51.5
No Act	Flow	30.7	34.0	26.1	22.6	27.1	36.7	122.3	118.2	80.6	47.6	40.9	31.0	51.5
Alt 1a	Flow	30.7	34.0	26.1	22.6	27.1	36.7	122.3	118.2	80.6	47.6	40.9	31.0	51.5
Alt 1c	Flow	30.7	34.0	26.1	22.6	27.1	36.7	122.3	118.2	80.6	47.6	40.9	31.0	51.5
Alt 8a	Flow	30.7	34.0	26.1	22.6	27.1	36.7	122.3	118.2	80.6	47.6	40.9	31.0	51.5
Alt 10a	Flow	30.7	34.0	26.1	22.6	27.1	36.7	122.3	118.2	80.6	47.6	40.9	31.0	51.5
Alt 13a	Flow	30.7	34.0	26.1	22.6	27.1	36.7	122.3	118.2	80.6	47.6	40.9	31.0	51.5
		Flow change from Current Conditions												
Full Use	Flow Change	0.3	-0.6	-0.8	-0.4	-0.3	-0.4	-0.7	-2.1	-9.0	-8.9	-6.0	-2.1	-2.6
No Act	Flow Change	0.3	-0.6	-0.8	-0.4	-0.3	-0.4	-0.7	-2.1	-8.9	-8.9	-6.0	-2.1	-2.6
Alt 1a	Flow Change	0.3	-0.6	-0.8	-0.4	-0.3	-0.4	-0.7	-2.1	-8.9	-8.9	-6.0	-2.1	-2.6
Alt 1c	Flow Change	0.3	-0.6	-0.8	-0.4	-0.3	-0.4	-0.7	-2.1	-8.9	-8.9	-6.0	-2.1	-2.6
Alt 8a	Flow Change	0.3	-0.6	-0.8	-0.4	-0.3	-0.4	-0.7	-2.1	-8.9	-8.9	-6.0	-2.1	-2.6
Alt 10a	Flow Change	0.3	-0.6	-0.8	-0.4	-0.3	-0.4	-0.7	-2.1	-8.9	-8.9	-6.0	-2.1	-2.6
Alt 13a	Flow Change	0.3	-0.6	-0.8	-0.4	-0.3	-0.4	-0.7	-2.1	-8.9	-8.9	-6.0	-2.1	-2.6
		Percent change in flow from Current Conditions												
Full Use	% Change	1%	-2%	-3%	-2%	-1%	-1%	-1%	-2%	-10%	-16%	-13%	-6%	-5%
No Act	% Change	1%	-2%	-3%	-2%	-1%	-1%	-1%	-2%	-10%	-16%	-13%	-6%	-5%
Alt 1a	% Change	1%	-2%	-3%	-2%	-1%	-1%	-1%	-2%	-10%	-16%	-13%	-6%	-5%
Alt 1c	% Change	1%	-2%	-3%	-2%	-1%	-1%	-1%	-2%	-10%	-16%	-13%	-6%	-5%
Alt 8a	% Change	1%	-2%	-3%	-2%	-1%	-1%	-1%	-2%	-10%	-16%	-13%	-6%	-5%
Alt 10a	% Change	1%	-2%	-3%	-2%	-1%	-1%	-1%	-2%	-10%	-16%	-13%	-6%	-5%
Alt 13a	% Change	1%	-2%	-3%	-2%	-1%	-1%	-1%	-2%	-10%	-16%	-13%	-6%	-5%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Conditions		79.9	53.0	41.6	39.6	41.7	47.3	255.4	662.1	1,139.2	435.6	117.8	57.1	247.5
Full Use	Flow	79.8	52.2	40.9	39.2	41.5	46.9	254.8	636.1	1,113.0	412.1	107.4	53.7	239.8
No Act	Flow	79.8	52.2	40.9	39.2	41.5	46.9	254.8	630.4	1,092.9	403.7	99.7	52.2	236.2
Alt 1a	Flow	79.8	52.2	40.9	39.2	41.5	46.9	254.8	590.5	998.6	405.5	102.7	52.2	225.4
Alt 1c	Flow	79.8	52.2	40.9	39.2	41.5	46.9	254.8	590.8	1,005.1	407.5	103.7	52.0	226.2
Alt 8a	Flow	79.8	52.2	40.9	39.2	41.5	46.9	254.8	590.8	1,003.3	406.1	102.8	52.2	225.9
Alt 10a	Flow	79.8	52.2	40.9	39.2	41.5	46.9	254.8	590.6	1,002.5	406.2	102.8	52.2	225.8
Alt 13a	Flow	79.8	52.2	40.9	39.2	41.5	46.9	254.8	590.6	1,001.9	405.9	102.7	52.2	225.7
		Flow change from Current Conditions												
Full Use	Flow Change	-0.1	-0.8	-0.7	-0.4	-0.3	-0.4	-0.6	-25.9	-26.2	-23.4	-10.4	-3.4	-7.7
No Act	Flow Change	-0.1	-0.8	-0.7	-0.4	-0.3	-0.4	-0.6	-31.7	-46.3	-31.8	-18.2	-4.9	-11.3
Alt 1a	Flow Change	-0.1	-0.8	-0.7	-0.4	-0.3	-0.4	-0.6	-71.6	-140.6	-30.0	-15.1	-4.9	-22.1
Alt 1c	Flow Change	-0.1	-0.8	-0.7	-0.4	-0.3	-0.4	-0.6	-71.3	-134.1	-28.0	-14.1	-5.1	-21.3
Alt 8a	Flow Change	-0.1	-0.8	-0.7	-0.4	-0.3	-0.4	-0.6	-71.3	-135.9	-29.5	-15.0	-4.9	-21.7
Alt 10a	Flow Change	-0.1	-0.8	-0.7	-0.4	-0.3	-0.4	-0.6	-71.4	-136.7	-29.4	-15.0	-4.9	-21.7
Alt 13a	Flow Change	-0.1	-0.8	-0.7	-0.4	-0.3	-0.4	-0.6	-71.5	-137.3	-29.7	-15.1	-4.9	-21.8
		Percent change in flow from Current Conditions												
Full Use	% Change	0%	-1%	-2%	-1%	-1%	-1%	0%	-4%	-2%	-5%	-9%	-6%	-3%
No Act	% Change	0%	-1%	-2%	-1%	-1%	-1%	0%	-5%	-4%	-7%	-15%	-9%	-5%
Alt 1a	% Change	0%	-1%	-2%	-1%	-1%	-1%	0%	-11%	-12%	-7%	-13%	-9%	-9%
Alt 1c	% Change	0%	-1%	-2%	-1%	-1%	-1%	0%	-11%	-12%	-6%	-12%	-9%	-9%
Alt 8a	% Change	0%	-1%	-2%	-1%	-1%	-1%	0%	-11%	-12%	-7%	-13%	-9%	-9%
Alt 10a	% Change	0%	-1%	-2%	-1%	-1%	-1%	0%	-11%	-12%	-7%	-13%	-9%	-9%
Alt 13a	% Change	0%	-1%	-2%	-1%	-1%	-1%	0%	-11%	-12%	-7%	-13%	-9%	-9%

Table H-1.51. Gumlick Tunnel Diversions (cfs)

Flow Change and % Change are based on comparisons to Current Conditions														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		6.4	4.2	3.0	2.4	2.1	2.1	4.4	29.0	47.7	19.5	16.1	9.3	12.2
Full Use	Flow	6.7	4.4	3.1	2.4	2.1	2.2	4.4	29.5	48.1	31.5	16.8	9.7	13.4
No Act	Flow	6.7	4.4	3.1	2.4	2.1	2.2	4.4	30.6	51.3	33.5	17.3	9.7	14.0
Alt 1a	Flow	6.9	4.6	3.2	2.6	2.3	2.2	4.4	33.0	66.0	39.3	18.1	9.8	16.0
Alt 1c	Flow	6.9	4.6	3.2	2.6	2.3	2.2	4.4	33.0	65.6	39.1	18.1	9.8	16.0
Alt 8a	Flow	6.9	4.6	3.2	2.6	2.3	2.2	4.4	33.0	64.9	36.9	17.0	9.8	15.7
Alt 10a	Flow	6.9	4.6	3.2	2.6	2.3	2.2	4.4	33.0	64.8	36.8	17.0	9.8	15.6
Alt 13a	Flow	6.9	4.6	3.2	2.6	2.3	2.2	4.4	33.0	65.6	38.1	17.7	9.8	15.9
Flow change from Current Conditions														
Full Use	Div. Change	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.5	0.4	12.0	0.7	0.4	1.2
No Act	Div. Change	0.3	0.2	0.1	0.0	0.0	0.0	0.0	1.6	3.6	14.0	1.1	0.4	1.8
Alt 1a	Div. Change	0.5	0.4	0.2	0.2	0.2	0.1	0.0	4.0	18.3	19.8	2.0	0.5	3.8
Alt 1c	Div. Change	0.5	0.4	0.2	0.2	0.2	0.1	0.0	4.0	17.9	19.6	2.0	0.5	3.8
Alt 8a	Div. Change	0.5	0.4	0.2	0.2	0.2	0.1	0.0	4.0	17.2	17.4	0.9	0.5	3.5
Alt 10a	Div. Change	0.5	0.4	0.2	0.2	0.2	0.1	0.0	4.0	17.1	17.3	0.9	0.5	3.4
Alt 13a	Div. Change	0.5	0.4	0.2	0.2	0.2	0.1	0.0	4.0	17.9	18.6	1.6	0.5	3.7
Percent change in flow from Current Conditions														
Full Use	% Change	3%	3%	4%	2%	0%	0%	0%	2%	1%	61%	4%	4%	10%
No Act	% Change	4%	4%	4%	0%	0%	0%	0%	5%	8%	72%	7%	5%	15%
Alt 1a	% Change	7%	10%	8%	9%	8%	3%	0%	14%	38%	101%	12%	5%	31%
Alt 1c	% Change	7%	10%	8%	9%	8%	3%	0%	14%	38%	101%	12%	5%	31%
Alt 8a	% Change	7%	10%	8%	9%	8%	3%	0%	14%	36%	90%	6%	5%	28%
Alt 10a	% Change	7%	10%	8%	9%	8%	3%	0%	14%	36%	89%	6%	5%	28%
Alt 13a	% Change	7%	10%	8%	9%	8%	3%	0%	14%	38%	95%	10%	5%	30%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Conditions		6.7	4.4	3.2	2.3	1.9	1.8	4.4	32.0	68.6	7.1	12.6	7.6	12.7
Full Use	Flow	6.7	4.4	3.2	2.3	1.9	1.8	4.4	32.0	71.7	23.8	13.4	7.9	14.5
No Act	Flow	6.7	4.4	3.2	2.3	1.9	1.8	4.4	32.0	71.7	23.8	13.4	7.9	14.5
Alt 1a	Flow	6.7	4.4	3.2	2.3	1.9	1.8	4.4	32.0	71.7	23.8	13.4	7.9	14.5
Alt 1c	Flow	6.7	4.4	3.2	2.3	1.9	1.8	4.4	32.0	71.7	23.8	13.4	7.9	14.5
Alt 8a	Flow	6.7	4.4	3.2	2.3	1.9	1.8	4.4	32.0	71.7	23.8	13.4	7.9	14.5
Alt 10a	Flow	6.7	4.4	3.2	2.3	1.9	1.8	4.4	32.0	71.7	23.8	13.4	7.9	14.5
Alt 13a	Flow	6.7	4.4	3.2	2.3	1.9	1.8	4.4	32.0	71.7	23.8	13.4	7.9	14.5
Flow change from Current Conditions														
Full Use	Div. Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	16.7	0.9	0.3	1.7
No Act	Div. Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	16.7	0.9	0.3	1.7
Alt 1a	Div. Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	16.7	0.9	0.3	1.7
Alt 1c	Div. Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	16.7	0.9	0.3	1.7
Alt 8a	Div. Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	16.7	0.9	0.3	1.7
Alt 10a	Div. Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	16.7	0.9	0.3	1.7
Alt 13a	Div. Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	16.7	0.9	0.3	1.7
Percent change in flow from Current Conditions														
Full Use	% Change	0%	0%	0%	0%	0%	0%	0%	0%	4%	237%	7%	4%	14%
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	4%	237%	7%	4%	14%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	4%	237%	7%	4%	14%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	4%	237%	7%	4%	14%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	4%	237%	7%	4%	14%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	4%	237%	7%	4%	14%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	4%	237%	7%	4%	14%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Conditions		10.0	5.7	3.7	3.2	3.0	2.8	5.2	18.8	8.4	17.4	17.0	11.4	8.9
Full Use	Flow	10.0	5.7	3.7	3.2	3.0	2.8	5.2	25.4	9.2	20.2	17.9	13.0	9.9
No Act	Flow	10.0	5.7	3.7	3.2	3.0	2.8	5.2	26.0	10.0	22.3	20.6	13.5	10.5
Alt 1a	Flow	10.0	5.7	3.7	3.2	3.0	2.8	5.2	31.7	22.3	22.4	19.4	13.6	11.9
Alt 1c	Flow	10.0	5.7	3.7	3.2	3.0	2.8	5.2	31.7	22.3	22.5	18.8	13.6	11.9
Alt 8a	Flow	10.0	5.7	3.7	3.2	3.0	2.8	5.2	31.7	22.3	22.8	19.4	13.6	11.9
Alt 10a	Flow	10.0	5.7	3.7	3.2	3.0	2.8	5.2	31.7	22.3	22.7	19.4	13.6	11.9
Alt 13a	Flow	10.0	5.7	3.7	3.2	3.0	2.8	5.2	31.7	22.3	22.3	19.4	13.6	11.9
Flow change from Current Conditions														
Full Use	Div. Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7	0.8	2.7	0.9	1.6	1.1
No Act	Div. Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.3	1.6	4.9	3.6	2.1	1.6
Alt 1a	Div. Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.9	13.8	5.0	2.4	2.1	3.0
Alt 1c	Div. Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.9	13.8	5.1	1.8	2.2	3.0
Alt 8a	Div. Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.9	13.8	5.4	2.4	2.1	3.1
Alt 10a	Div. Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.9	13.8	5.3	2.4	2.1	3.0
Alt 13a	Div. Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.9	13.8	4.9	2.4	2.1	3.0
Percent change in flow from Current Conditions														
Full Use	% Change	0%	0%	0%	0%	0%	0%	0%	36%	9%	16%	5%	14%	12%
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	39%	20%	28%	21%	18%	18%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	69%	165%	29%	14%	19%	34%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	69%	165%	29%	10%	19%	34%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	69%	165%	31%	14%	19%	34%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	69%	165%	31%	14%	19%	34%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	69%	165%	28%	14%	19%	34%

Table H-1.52. Below Denver Water's Diversion from Steelman Creek (cfs)

Flow Change and % Change are based on comparisons to Current Conditions														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		0.2	0.2	0.1	0.1	0.1	0.0	0.0	1.8	19.6	11.5	1.0	0.1	2.9
Full Use	Flow	0.1	0.1	0.1	0.1	0.1	0.0	0.0	1.7	19.5	8.4	0.8	0.1	2.6
No Act	Flow	0.1	0.1	0.0	0.1	0.1	0.0	0.0	1.4	18.6	7.9	0.7	0.0	2.4
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	15.4	6.6	0.5	0.0	1.9
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	15.4	6.6	0.5	0.0	1.9
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	15.6	7.1	0.7	0.0	2.0
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	15.6	7.2	0.7	0.0	2.0
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	15.4	6.8	0.6	0.0	2.0
Flow change from Current Conditions														
Full Use	Flow Change	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-3.0	-0.2	-0.1	-0.3
No Act	Flow Change	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	-0.4	-0.9	-3.5	-0.3	-0.1	-0.5
Alt 1a	Flow Change	-0.2	-0.2	-0.1	-0.1	-0.1	0.0	0.0	-1.0	-4.2	-4.9	-0.5	-0.1	-0.9
Alt 1c	Flow Change	-0.2	-0.2	-0.1	-0.1	-0.1	0.0	0.0	-1.0	-4.2	-4.9	-0.5	-0.1	-0.9
Alt 8a	Flow Change	-0.2	-0.2	-0.1	-0.1	-0.1	0.0	0.0	-1.0	-4.0	-4.3	-0.2	-0.1	-0.9
Alt 10a	Flow Change	-0.2	-0.2	-0.1	-0.1	-0.1	0.0	0.0	-1.0	-4.0	-4.3	-0.2	-0.1	-0.8
Alt 13a	Flow Change	-0.2	-0.2	-0.1	-0.1	-0.1	0.0	0.0	-1.0	-4.2	-4.6	-0.4	-0.1	-0.9
Percent change in flow from Current Conditions														
Full Use	% Change	-36%	-31%	-43%	-23%	0%	0%	0%	-8%	-1%	-26%	-19%	-61%	-11%
No Act	% Change	-58%	-33%	-54%	0%	0%	0%	0%	-22%	-5%	-31%	-29%	-69%	-16%
Alt 1a	% Change	-100%	-100%	-99%	-96%	-94%	-91%	0%	-55%	-22%	-43%	-52%	-80%	-33%
Alt 1c	% Change	-100%	-100%	-99%	-96%	-94%	-91%	0%	-55%	-21%	-42%	-51%	-81%	-32%
Alt 8a	% Change	-100%	-100%	-99%	-96%	-94%	-91%	0%	-55%	-21%	-38%	-23%	-80%	-30%
Alt 10a	% Change	-100%	-100%	-99%	-96%	-94%	-91%	0%	-55%	-20%	-37%	-23%	-80%	-29%
Alt 13a	% Change	-100%	-100%	-99%	-96%	-94%	-91%	0%	-55%	-21%	-40%	-42%	-80%	-31%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Conditions		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	4.7	0.2	0.1	0.5
Full Use	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.7	0.0	0.0	0.1
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.7	0.0	0.0	0.1
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.7	0.0	0.0	0.1
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.7	0.0	0.0	0.1
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.7	0.0	0.0	0.1
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.7	0.0	0.0	0.1
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.7	0.0	0.0	0.1
Flow change from Current Conditions														
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.0	-4.0	-0.2	-0.1	-0.4
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.0	-4.0	-0.2	-0.1	-0.4
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.0	-4.0	-0.2	-0.1	-0.4
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.0	-4.0	-0.2	-0.1	-0.4
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.0	-4.0	-0.2	-0.1	-0.4
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.0	-4.0	-0.2	-0.1	-0.4
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.0	-4.0	-0.2	-0.1	-0.4
Percent change in flow from Current Conditions														
Full Use	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-74%	-84%	-100%	-100%	-81%
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-74%	-84%	-100%	-100%	-81%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-74%	-84%	-100%	-99%	-81%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-74%	-84%	-100%	-99%	-81%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-74%	-84%	-100%	-99%	-81%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-74%	-84%	-100%	-99%	-81%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-74%	-84%	-100%	-100%	-81%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Conditions		0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7	35.4	22.2	4.2	0.6	5.8
Full Use	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9	35.2	21.7	4.0	0.3	5.5
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	35.0	21.2	3.5	0.2	5.4
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	32.4	21.4	3.8	0.1	5.1
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	32.4	21.4	4.0	0.1	5.1
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	32.4	21.3	3.8	0.1	5.1
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	32.4	21.3	3.8	0.1	5.1
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	32.4	21.2	3.8	0.1	5.1
Flow change from Current Conditions														
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.8	-0.2	-0.5	-0.2	-0.3	-0.3
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-2.1	-0.4	-1.1	-0.7	-0.4	-0.4
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.6	-3.0	-0.9	-0.4	-0.4	-0.7
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.6	-3.0	-0.8	-0.2	-0.4	-0.7
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.6	-3.0	-0.9	-0.4	-0.4	-0.7
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.6	-3.0	-0.9	-0.4	-0.4	-0.7
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.6	-3.0	-1.0	-0.4	-0.4	-0.7
Percent change in flow from Current Conditions														
Full Use	% Change	0%	0%	0%	0%	0%	0%	0%	-27%	-1%	-2%	-5%	-56%	-4%
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-31%	-1%	-5%	-16%	-67%	-7%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	-54%	-8%	-4%	-10%	-75%	-12%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	-54%	-8%	-4%	-5%	-77%	-12%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	-54%	-8%	-4%	-9%	-75%	-12%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	-54%	-8%	-4%	-9%	-75%	-12%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	-54%	-8%	-4%	-9%	-75%	-12%

Table H-1.53. Below Denver Water's Diversion from Bobtail Creek (cfs)

Flow Change and % Change are based on comparisons to Current Conditions														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		0.1	0.1	0.1	0.0	0.0	0.0	0.0	2.6	35.1	19.7	1.7	0.3	5.0
Full Use	Flow	0.1	0.1	0.0	0.0	0.0	0.0	0.0	2.4	35.0	14.4	1.4	0.1	4.5
No Act	Flow	0.0	0.1	0.0	0.0	0.0	0.0	0.0	1.9	33.6	13.5	1.2	0.0	4.2
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	26.6	10.9	0.8	0.0	3.3
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	26.8	11.0	0.8	0.0	3.3
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	27.2	12.0	1.3	0.0	3.5
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	27.3	12.1	1.3	0.0	3.5
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	26.8	11.5	1.0	0.0	3.4
		Flow change from Current Conditions												
Full Use	Flow Change	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.1	-5.4	-0.3	-0.2	-0.5
No Act	Flow Change	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.7	-1.5	-6.2	-0.5	-0.2	-0.8
Alt 1a	Flow Change	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	-1.7	-8.4	-8.8	-0.9	-0.2	-1.7
Alt 1c	Flow Change	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	-1.7	-8.3	-8.8	-0.9	-0.2	-1.7
Alt 8a	Flow Change	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	-1.7	-7.8	-7.7	-0.4	-0.2	-1.5
Alt 10a	Flow Change	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	-1.7	-7.8	-7.7	-0.4	-0.2	-1.5
Alt 13a	Flow Change	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	-1.7	-8.2	-8.3	-0.7	-0.2	-1.6
		Percent change in flow from Current Conditions												
Full Use	% Change	-62%	-47%	-57%	-26%	0%	0%	2%	-8%	0%	-27%	-18%	-68%	-11%
No Act	% Change	-74%	-47%	-59%	0%	0%	0%	0%	-27%	-4%	-32%	-30%	-88%	-16%
Alt 1a	% Change	-100%	-100%	-100%	-95%	-91%	-86%	2%	-67%	-24%	-45%	-52%	-90%	-34%
Alt 1c	% Change	-100%	-100%	-100%	-95%	-91%	-86%	2%	-67%	-24%	-44%	-52%	-91%	-34%
Alt 8a	% Change	-100%	-100%	-100%	-95%	-91%	-86%	2%	-67%	-22%	-39%	-25%	-90%	-31%
Alt 10a	% Change	-100%	-100%	-100%	-95%	-91%	-86%	2%	-67%	-22%	-39%	-25%	-90%	-31%
Alt 13a	% Change	-100%	-100%	-100%	-95%	-91%	-86%	2%	-67%	-23%	-42%	-42%	-90%	-33%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Conditions		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	9.1	0.4	0.0	0.9
Full Use	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.0	0.0	0.0	0.1
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.0	0.0	0.0	0.1
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.0	0.0	0.0	0.1
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.0	0.0	0.0	0.1
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.0	0.0	0.0	0.1
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.0	0.0	0.0	0.1
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.0	0.0	0.0	0.1
		Flow change from Current Conditions												
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.2	-8.1	-0.4	0.0	-0.8
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.2	-8.1	-0.4	0.0	-0.8
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.2	-8.1	-0.4	0.0	-0.8
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.2	-8.1	-0.4	0.0	-0.8
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.2	-8.1	-0.4	0.0	-0.8
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.2	-8.1	-0.4	0.0	-0.8
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.2	-8.1	-0.4	0.0	-0.8
		Percent change in flow from Current Conditions												
Full Use	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-94%	-89%	-100%	-97%	-89%
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-94%	-89%	-100%	-97%	-89%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-94%	-89%	-100%	-100%	-89%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-94%	-89%	-100%	-100%	-89%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-94%	-89%	-100%	-100%	-89%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-94%	-89%	-100%	-100%	-89%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-94%	-89%	-100%	-97%	-89%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Conditions		0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.4	72.9	37.4	8.4	1.4	10.6
Full Use	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7	72.6	36.1	7.9	0.6	10.2
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	72.2	34.9	6.5	0.2	9.9
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	66.3	34.9	7.0	0.2	9.2
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	66.3	35.0	7.2	0.1	9.2
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	66.3	34.7	6.9	0.2	9.2
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	66.3	34.8	6.9	0.2	9.2
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	66.3	35.0	7.0	0.2	9.2
		Flow change from Current Conditions												
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-2.7	-0.3	-1.4	-0.4	-0.9	-0.5
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-2.9	-0.7	-2.5	-1.9	-1.3	-0.8
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-5.1	-6.6	-2.5	-1.4	-1.3	-1.4
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-5.1	-6.6	-2.5	-1.1	-1.3	-1.4
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-5.1	-6.6	-2.7	-1.4	-1.3	-1.4
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-5.1	-6.6	-2.6	-1.4	-1.3	-1.4
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-5.1	-6.6	-2.4	-1.4	-1.3	-1.4
		Percent change in flow from Current Conditions												
Full Use	% Change	0%	0%	0%	0%	0%	0%	0%	-37%	0%	-4%	-5%	-62%	-4%
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-39%	-1%	-7%	-23%	-88%	-7%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	-69%	-9%	-7%	-17%	-88%	-13%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	-69%	-9%	-7%	-14%	-90%	-13%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	-69%	-9%	-7%	-17%	-88%	-13%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	-69%	-9%	-7%	-17%	-88%	-13%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	-69%	-9%	-6%	-17%	-88%	-13%

Table H-1.54. Below Denver Water's Diversion from Jones Creek (cfs)

Flow Change and % Change are based on comparisons to Current Conditions														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		0.1	0.1	0.0	0.0	0.0	0.0	0.0	1.0	10.8	6.4	0.5	0.1	1.6
Full Use	Flow	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.9	10.7	4.7	0.4	0.0	1.4
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	10.3	4.4	0.4	0.0	1.3
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	8.8	3.7	0.3	0.0	1.1
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	8.8	3.7	0.3	0.0	1.1
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	8.9	4.0	0.4	0.0	1.1
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	8.9	4.0	0.4	0.0	1.2
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	8.8	3.8	0.3	0.0	1.1
		Flow change from Current Conditions												
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	-1.7	-0.1	0.0	-0.2
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.5	-2.1	-0.2	0.0	-0.3
Alt 1a	Flow Change	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	-0.5	-2.0	-2.8	-0.3	-0.1	-0.5
Alt 1c	Flow Change	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	-0.5	-2.0	-2.7	-0.3	-0.1	-0.5
Alt 8a	Flow Change	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	-0.5	-1.9	-2.4	-0.1	-0.1	-0.4
Alt 10a	Flow Change	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	-0.5	-1.9	-2.4	-0.1	-0.1	-0.4
Alt 13a	Flow Change	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	-0.5	-2.0	-2.6	-0.2	-0.1	-0.5
		Percent change in flow from Current Conditions												
Full Use	% Change	-35%	-31%	-36%	-21%	0%	0%	0%	-9%	0%	-27%	-19%	-55%	-11%
No Act	% Change	-56%	-32%	-51%	0%	0%	0%	0%	-20%	-4%	-32%	-29%	-61%	-16%
Alt 1a	% Change	-95%	-100%	-94%	-95%	-92%	-75%	0%	-52%	-19%	-43%	-50%	-75%	-31%
Alt 1c	% Change	-95%	-100%	-94%	-95%	-92%	-75%	0%	-52%	-18%	-43%	-50%	-76%	-31%
Alt 8a	% Change	-95%	-100%	-94%	-95%	-92%	-75%	0%	-52%	-18%	-38%	-22%	-75%	-28%
Alt 10a	% Change	-95%	-100%	-94%	-95%	-92%	-75%	0%	-52%	-18%	-38%	-23%	-75%	-28%
Alt 13a	% Change	-95%	-100%	-94%	-95%	-92%	-75%	0%	-52%	-18%	-41%	-41%	-75%	-30%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Conditions		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	2.7	0.1	0.1	0.3
Full Use	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.5	0.0	0.0	0.1
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.5	0.0	0.0	0.1
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.5	0.0	0.0	0.1
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.5	0.0	0.0	0.1
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.5	0.0	0.0	0.1
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.5	0.0	0.0	0.1
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.5	0.0	0.0	0.1
		Flow change from Current Conditions												
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.6	-2.2	-0.1	-0.1	-0.2
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.6	-2.2	-0.1	-0.1	-0.2
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.6	-2.2	-0.1	-0.1	-0.2
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.6	-2.2	-0.1	-0.1	-0.2
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.6	-2.2	-0.1	-0.1	-0.2
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.6	-2.2	-0.1	-0.1	-0.2
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.6	-2.2	-0.1	-0.1	-0.2
		Percent change in flow from Current Conditions												
Full Use	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-61%	-83%	-100%	-94%	-77%
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-61%	-83%	-100%	-94%	-77%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-61%	-83%	-100%	-94%	-77%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-61%	-83%	-100%	-94%	-77%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-61%	-83%	-100%	-94%	-77%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-61%	-83%	-100%	-94%	-77%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-61%	-83%	-100%	-94%	-77%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Conditions		0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	19.0	12.1	2.3	0.3	3.1
Full Use	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	18.9	11.8	2.1	0.1	3.0
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	18.7	11.5	1.9	0.1	2.9
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	17.4	11.7	2.0	0.1	2.7
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	17.4	11.6	2.1	0.1	2.7
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	17.4	11.6	2.0	0.1	2.7
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	17.4	11.6	2.0	0.1	2.7
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	17.4	11.6	2.0	0.1	2.7
		Flow change from Current Conditions												
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.9	-0.1	-0.3	-0.1	-0.2	-0.1
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.0	-0.2	-0.5	-0.4	-0.2	-0.2
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.8	-1.6	-0.4	-0.2	-0.2	-0.4
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.8	-1.6	-0.4	-0.2	-0.2	-0.3
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.8	-1.6	-0.4	-0.2	-0.2	-0.4
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.8	-1.6	-0.4	-0.2	-0.2	-0.4
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.8	-1.6	-0.5	-0.2	-0.2	-0.4
		Percent change in flow from Current Conditions												
Full Use	% Change	0%	0%	0%	0%	0%	0%	0%	-26%	-1%	-3%	-6%	-53%	-4%
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-29%	-1%	-5%	-17%	-63%	-6%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	-51%	-8%	-4%	-10%	-75%	-11%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	-51%	-8%	-4%	-7%	-76%	-11%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	-51%	-8%	-4%	-10%	-75%	-11%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	-51%	-8%	-4%	-10%	-75%	-11%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	-51%	-8%	-4%	-10%	-75%	-12%

Table H-1.55. Below Denver Water's Diversion from McQueary Creek (cfs)

Flow Change and % Change are based on comparisons to Current Conditions														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		0.1	0.1	0.1	0.0	0.0	0.0	0.0	1.2	12.8	7.6	0.7	0.1	1.9
Full Use	Flow	0.1	0.1	0.0	0.0	0.0	0.0	0.0	1.1	12.7	5.7	0.5	0.0	1.7
No Act	Flow	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.9	12.1	5.4	0.5	0.0	1.6
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	9.2	4.3	0.3	0.0	1.2
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	9.3	4.3	0.3	0.0	1.2
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	9.3	4.7	0.5	0.0	1.3
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	9.4	4.7	0.5	0.0	1.3
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	9.2	4.5	0.4	0.0	1.2
Flow change from Current Conditions														
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-1.9	-0.1	-0.1	-0.2
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-0.7	-2.2	-0.2	-0.1	-0.3
Alt 1a	Flow Change	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	-0.7	-3.6	-3.3	-0.3	-0.1	-0.7
Alt 1c	Flow Change	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	-0.7	-3.5	-3.3	-0.3	-0.1	-0.7
Alt 8a	Flow Change	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	-0.7	-3.4	-2.9	-0.1	-0.1	-0.6
Alt 10a	Flow Change	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	-0.7	-3.4	-2.9	-0.1	-0.1	-0.6
Alt 13a	Flow Change	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	-0.7	-3.5	-3.1	-0.3	-0.1	-0.7
Percent change in flow from Current Conditions														
Full Use	% Change	-29%	-31%	-48%	-21%	0%	0%	-4%	-5%	-1%	-24%	-18%	-62%	-10%
No Act	% Change	-52%	-31%	-50%	0%	0%	0%	0%	-24%	-5%	-29%	-27%	-67%	-15%
Alt 1a	% Change	-96%	-100%	-91%	-94%	-91%	-90%	-4%	-63%	-28%	-44%	-50%	-68%	-37%
Alt 1c	% Change	-96%	-100%	-91%	-94%	-91%	-90%	-4%	-63%	-28%	-43%	-50%	-69%	-36%
Alt 8a	% Change	-96%	-100%	-91%	-94%	-91%	-90%	-4%	-63%	-27%	-39%	-21%	-68%	-34%
Alt 10a	% Change	-96%	-100%	-91%	-94%	-91%	-90%	-4%	-63%	-27%	-38%	-21%	-68%	-33%
Alt 13a	% Change	-96%	-100%	-91%	-94%	-91%	-90%	-4%	-63%	-28%	-41%	-39%	-68%	-35%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Conditions		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	2.9	0.2	0.1	0.3
Full Use	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.1
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.1
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.1
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.1
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.1
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.1
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.1
Flow change from Current Conditions														
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-2.4	-0.2	-0.1	-0.2
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-2.4	-0.2	-0.1	-0.2
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-2.4	-0.2	-0.1	-0.2
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-2.4	-0.2	-0.1	-0.2
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-2.4	-0.2	-0.1	-0.2
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-2.4	-0.2	-0.1	-0.2
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-2.4	-0.2	-0.1	-0.2
Percent change in flow from Current Conditions														
Full Use	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-100%	-81%	-100%	-96%	-81%
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-100%	-81%	-100%	-96%	-81%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-100%	-81%	-100%	-96%	-81%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-100%	-81%	-100%	-96%	-81%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-100%	-81%	-100%	-96%	-81%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-100%	-81%	-100%	-96%	-81%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	-100%	-81%	-100%	-96%	-81%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Conditions		0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	25.3	16.0	3.0	0.3	4.1
Full Use	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	25.2	15.5	2.8	0.1	3.9
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	25.1	15.2	2.4	0.1	3.8
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	22.7	14.8	2.7	0.1	3.5
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	22.7	14.6	2.7	0.1	3.5
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	22.7	14.7	2.7	0.1	3.5
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	22.7	14.7	2.7	0.1	3.5
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	22.7	15.0	2.7	0.1	3.5
Flow change from Current Conditions														
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.2	-0.1	-0.5	-0.2	-0.2	-0.2
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.3	-0.3	-0.8	-0.6	-0.2	-0.3
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-2.4	-2.6	-1.2	-0.3	-0.2	-0.6
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-2.4	-2.6	-1.4	-0.3	-0.2	-0.6
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-2.4	-2.6	-1.3	-0.3	-0.2	-0.6
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-2.4	-2.6	-1.3	-0.3	-0.2	-0.6
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-2.4	-2.6	-1.0	-0.3	-0.2	-0.6
Percent change in flow from Current Conditions														
Full Use	% Change	0%	0%	0%	0%	0%	0%	0%	-27%	-1%	-3%	-6%	-59%	-5%
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-29%	-1%	-5%	-20%	-69%	-6%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	-53%	-10%	-8%	-11%	-69%	-14%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	-53%	-10%	-9%	-9%	-71%	-14%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	-53%	-10%	-8%	-11%	-69%	-14%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	-53%	-10%	-8%	-11%	-69%	-14%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	-53%	-10%	-6%	-11%	-69%	-13%

Table H-1.56. Williams Fork River below Steelman Creek Gage (cfs)

Flow Change and % Change are based on comparisons to Current Conditions														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		1.2	1.0	0.7	0.6	0.6	0.5	0.7	9.9	87.7	49.5	5.3	1.4	13.3
Full Use	Flow	1.0	0.9	0.6	0.6	0.6	0.5	0.7	9.4	87.3	37.6	4.6	1.1	12.1
No Act	Flow	0.9	0.9	0.6	0.6	0.6	0.5	0.7	8.3	84.1	35.6	4.1	1.0	11.5
Alt 1a	Flow	0.8	0.6	0.5	0.4	0.4	0.4	0.7	5.9	69.3	29.8	3.3	1.0	9.4
Alt 1c	Flow	0.8	0.6	0.5	0.4	0.4	0.4	0.7	5.9	69.7	29.9	3.3	1.0	9.5
Alt 8a	Flow	0.8	0.6	0.5	0.4	0.4	0.4	0.7	5.9	70.5	32.1	4.4	1.0	9.8
Alt 10a	Flow	0.8	0.6	0.5	0.4	0.4	0.4	0.7	5.9	70.6	32.2	4.4	1.0	9.8
Alt 13a	Flow	0.8	0.6	0.5	0.4	0.4	0.4	0.7	5.9	69.8	30.9	3.7	1.0	9.6
Flow change from Current Conditions														
Full Use	Flow Change	-0.2	-0.1	-0.1	-0.1	0.0	0.0	0.0	-0.5	-0.4	-12.0	-0.7	-0.4	-1.2
No Act	Flow Change	-0.3	-0.2	-0.1	0.0	0.0	0.0	0.0	-1.6	-3.6	-14.0	-1.1	-0.4	-1.8
Alt 1a	Flow Change	-0.5	-0.4	-0.2	-0.2	-0.2	-0.1	0.0	-4.0	-18.3	-19.8	-2.0	-0.5	-3.8
Alt 1c	Flow Change	-0.5	-0.4	-0.2	-0.2	-0.2	-0.1	0.0	-4.0	-17.9	-19.6	-2.0	-0.5	-3.8
Alt 8a	Flow Change	-0.5	-0.4	-0.2	-0.2	-0.2	-0.1	0.0	-4.0	-17.2	-17.5	-0.9	-0.5	-3.5
Alt 10a	Flow Change	-0.5	-0.4	-0.2	-0.2	-0.2	-0.1	0.0	-4.0	-17.1	-17.3	-0.9	-0.5	-3.4
Alt 13a	Flow Change	-0.5	-0.4	-0.2	-0.2	-0.2	-0.1	0.0	-4.0	-17.9	-18.6	-1.6	-0.5	-3.7
Percent change in flow from Current Conditions														
Full Use	% Change	-16%	-14%	-16%	-8%	0%	0%	0%	-5%	0%	-24%	-14%	-26%	-9%
No Act	% Change	-23%	-15%	-18%	0%	0%	0%	0%	-16%	-4%	-28%	-22%	-30%	-13%
Alt 1a	% Change	-37%	-41%	-33%	-32%	-30%	-15%	0%	-40%	-21%	-40%	-38%	-32%	-29%
Alt 1c	% Change	-37%	-41%	-33%	-32%	-30%	-15%	0%	-40%	-20%	-40%	-38%	-33%	-29%
Alt 8a	% Change	-37%	-41%	-33%	-32%	-30%	-15%	0%	-40%	-20%	-35%	-17%	-32%	-26%
Alt 10a	% Change	-37%	-41%	-33%	-32%	-30%	-15%	0%	-40%	-19%	-35%	-17%	-32%	-26%
Alt 13a	% Change	-37%	-41%	-33%	-32%	-30%	-15%	0%	-40%	-20%	-38%	-30%	-32%	-28%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Conditions		0.7	0.5	0.4	0.4	0.3	0.4	0.8	1.9	7.2	21.0	1.5	0.7	3.0
Full Use	Flow	0.7	0.5	0.4	0.4	0.4	0.4	0.8	1.9	4.2	4.2	0.6	0.4	1.2
No Act	Flow	0.7	0.5	0.4	0.4	0.4	0.4	0.8	1.9	4.2	4.2	0.6	0.4	1.2
Alt 1a	Flow	0.7	0.5	0.4	0.4	0.4	0.4	0.8	1.9	4.2	4.2	0.6	0.4	1.2
Alt 1c	Flow	0.7	0.5	0.4	0.4	0.4	0.4	0.8	1.9	4.2	4.2	0.6	0.4	1.2
Alt 8a	Flow	0.7	0.5	0.4	0.4	0.4	0.4	0.8	1.9	4.2	4.2	0.6	0.4	1.2
Alt 10a	Flow	0.7	0.5	0.4	0.4	0.4	0.4	0.8	1.9	4.2	4.2	0.6	0.4	1.2
Alt 13a	Flow	0.7	0.5	0.4	0.4	0.4	0.4	0.8	1.9	4.2	4.2	0.6	0.4	1.2
Flow change from Current Conditions														
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.0	-16.7	-0.9	-0.3	-1.7
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.0	-16.7	-0.9	-0.3	-1.7
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.0	-16.7	-0.9	-0.3	-1.7
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.0	-16.7	-0.9	-0.3	-1.7
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.0	-16.7	-0.9	-0.3	-1.7
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.0	-16.7	-0.9	-0.3	-1.7
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.0	-16.7	-0.9	-0.3	-1.7
Percent change in flow from Current Conditions														
Full Use	% Change	0%	0%	1%	-1%	0%	-1%	0%	0%	-42%	-80%	-59%	-42%	-58%
No Act	% Change	0%	0%	1%	-1%	0%	-1%	0%	0%	-42%	-80%	-59%	-42%	-58%
Alt 1a	% Change	0%	0%	1%	-1%	0%	-1%	0%	0%	-42%	-80%	-59%	-42%	-58%
Alt 1c	% Change	0%	0%	1%	-1%	0%	-1%	0%	0%	-42%	-80%	-59%	-42%	-58%
Alt 8a	% Change	0%	0%	1%	-1%	0%	-1%	0%	0%	-42%	-80%	-59%	-42%	-58%
Alt 10a	% Change	0%	0%	1%	-1%	0%	-1%	0%	0%	-42%	-80%	-59%	-42%	-58%
Alt 13a	% Change	0%	0%	1%	-1%	0%	-1%	0%	0%	-42%	-80%	-59%	-42%	-58%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Conditions		1.1	0.8	0.6	0.5	0.5	0.4	0.9	26.6	166.4	95.6	20.3	3.8	26.5
Full Use	Flow	1.1	0.8	0.6	0.5	0.5	0.4	0.9	20.0	165.6	92.8	19.4	2.3	25.4
No Act	Flow	1.1	0.8	0.6	0.5	0.5	0.4	0.9	19.4	164.7	90.7	16.8	1.8	24.8
Alt 1a	Flow	1.1	0.8	0.6	0.5	0.5	0.4	0.9	13.7	152.5	90.6	18.0	1.7	23.4
Alt 1c	Flow	1.1	0.8	0.6	0.5	0.5	0.4	0.9	13.7	152.5	90.5	18.5	1.6	23.5
Alt 8a	Flow	1.1	0.8	0.6	0.5	0.5	0.4	0.9	13.7	152.5	90.2	17.9	1.7	23.4
Alt 10a	Flow	1.1	0.8	0.6	0.5	0.5	0.4	0.9	13.7	152.5	90.3	17.9	1.7	23.4
Alt 13a	Flow	1.1	0.8	0.6	0.5	0.5	0.4	0.9	13.7	152.5	90.7	18.0	1.7	23.5
Flow change from Current Conditions														
Full Use	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-6.7	-0.8	-2.7	-0.9	-1.6	-1.1
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-7.3	-1.6	-4.9	-3.6	-2.1	-1.6
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-12.9	-13.9	-5.0	-2.4	-2.2	-3.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-12.9	-13.9	-5.1	-1.8	-2.2	-3.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-12.9	-13.9	-5.4	-2.4	-2.2	-3.1
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-12.9	-13.9	-5.3	-2.4	-2.2	-3.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-12.9	-13.9	-4.9	-2.4	-2.2	-3.0
Percent change in flow from Current Conditions														
Full Use	% Change	0%	0%	0%	0%	-1%	1%	0%	-25%	0%	-3%	-5%	-41%	-4%
No Act	% Change	0%	0%	0%	0%	-1%	1%	0%	-27%	-1%	-5%	-18%	-54%	-6%
Alt 1a	% Change	0%	0%	0%	0%	-1%	1%	0%	-48%	-8%	-5%	-12%	-56%	-11%
Alt 1c	% Change	0%	0%	0%	0%	-1%	1%	0%	-48%	-8%	-5%	-9%	-57%	-11%
Alt 8a	% Change	0%	0%	0%	0%	-1%	1%	0%	-48%	-8%	-6%	-12%	-56%	-12%
Alt 10a	% Change	0%	0%	0%	0%	-1%	1%	0%	-48%	-8%	-6%	-12%	-56%	-12%
Alt 13a	% Change	0%	0%	0%	0%	-1%	1%	0%	-48%	-8%	-5%	-12%	-56%	-11%

Table H-1.57. Williams Fork Reservoir Outflow (cfs)

Flow Change and % Change are based on comparisons to Current Conditions		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		139.5	118.7	84.7	93.2	74.0	92.4	114.7	84.6	132.7	128.0	204.4	184.6	121.0
Full Use	Flow	153.3	123.4	89.1	97.0	79.7	91.5	130.3	103.0	152.5	196.2	196.7	186.1	133.2
No Act	Flow	154.8	122.3	89.7	99.6	78.6	96.9	130.2	98.7	142.0	194.9	198.0	189.4	132.9
Alt 1a	Flow	153.8	120.7	88.4	98.6	77.6	96.7	130.3	103.3	132.6	183.2	197.4	187.9	130.9
Alt 1c	Flow	153.9	120.8	88.7	98.7	77.6	96.7	130.3	103.3	132.2	183.4	197.4	188.3	130.9
Alt 8a	Flow	153.6	121.2	88.3	98.4	77.6	96.6	130.3	103.3	133.5	186.9	197.5	187.8	131.2
Alt 10a	Flow	153.6	121.2	88.3	98.4	77.6	96.6	130.3	103.3	133.6	187.2	197.6	187.7	131.3
Alt 13a	Flow	153.6	120.6	88.3	98.3	77.6	96.4	130.3	98.6	135.8	186.7	198.2	187.8	131.0
		Flow change from Current Conditions												
Full Use	Flow Change	13.8	4.7	4.4	3.9	5.7	-0.9	15.6	18.4	19.8	68.2	-7.7	1.5	12.3
No Act	Flow Change	15.4	3.6	5.0	6.4	4.6	4.5	15.5	14.1	9.3	66.9	-6.4	4.8	12.0
Alt 1a	Flow Change	14.3	2.0	3.7	5.4	3.6	4.3	15.6	18.7	-0.2	55.2	-7.1	3.3	9.9
Alt 1c	Flow Change	14.4	2.0	4.0	5.5	3.6	4.3	15.6	18.7	-0.5	55.3	-7.0	3.7	10.0
Alt 8a	Flow Change	14.1	2.5	3.5	5.2	3.6	4.2	15.6	18.7	0.8	58.9	-7.0	3.2	10.3
Alt 10a	Flow Change	14.1	2.5	3.5	5.2	3.6	4.2	15.6	18.7	0.8	59.1	-6.9	3.1	10.3
Alt 13a	Flow Change	14.1	1.9	3.6	5.2	3.6	4.0	15.6	14.0	3.1	58.7	-6.2	3.2	10.1
		Percent change in flow from Current Conditions												
Full Use	% Change	10%	4%	5%	4%	8%	-1%	14%	22%	15%	53%	-4%	1%	10%
No Act	% Change	11%	3%	6%	7%	6%	5%	13%	17%	7%	52%	-3%	3%	10%
Alt 1a	% Change	10%	2%	4%	6%	5%	5%	14%	22%	0%	43%	-3%	2%	8%
Alt 1c	% Change	10%	2%	5%	6%	5%	5%	14%	22%	0%	43%	-3%	2%	8%
Alt 8a	% Change	10%	2%	4%	6%	5%	5%	14%	22%	1%	46%	-3%	2%	9%
Alt 10a	% Change	10%	2%	4%	6%	5%	5%	14%	22%	1%	46%	-3%	2%	9%
Alt 13a	% Change	10%	2%	4%	6%	5%	4%	14%	17%	2%	46%	-3%	2%	8%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Conditions		152.1	110.7	73.6	66.9	55.0	56.2	69.8	23.7	26.1	66.6	228.5	235.0	97.0
Full Use	Flow	152.3	110.8	75.8	66.3	55.0	56.4	68.9	24.0	50.9	166.6	239.3	248.0	109.5
No Act	Flow	152.3	110.8	75.8	66.3	55.0	56.4	68.9	24.0	50.9	166.6	240.5	248.0	109.6
Alt 1a	Flow	152.3	110.8	75.8	66.3	55.0	56.4	68.9	24.0	50.9	165.0	240.1	247.9	109.4
Alt 1c	Flow	152.3	110.8	75.8	66.3	55.0	56.4	68.9	24.0	50.9	165.8	240.1	247.9	109.5
Alt 8a	Flow	152.3	110.8	75.8	66.3	55.0	56.4	68.9	24.0	50.9	165.0	240.0	248.0	109.4
Alt 10a	Flow	152.3	110.8	75.8	66.3	55.0	56.4	68.9	24.0	50.9	165.0	240.0	248.0	109.4
Alt 13a	Flow	152.3	110.8	75.8	66.3	55.0	56.4	68.9	24.0	50.9	165.0	240.1	247.9	109.4
		Flow change from Current Conditions												
Full Use	Flow Change	0.2	0.1	2.2	-0.6	-0.1	0.2	-1.0	0.3	24.8	99.9	10.8	12.9	12.5
No Act	Flow Change	0.2	0.1	2.2	-0.6	-0.1	0.2	-1.0	0.3	24.8	99.9	12.0	12.9	12.6
Alt 1a	Flow Change	0.2	0.1	2.2	-0.6	-0.1	0.2	-1.0	0.3	24.8	98.3	11.6	12.9	12.4
Alt 1c	Flow Change	0.2	0.1	2.2	-0.6	-0.1	0.2	-1.0	0.3	24.8	99.1	11.6	12.9	12.5
Alt 8a	Flow Change	0.2	0.1	2.2	-0.6	-0.1	0.2	-1.0	0.3	24.8	98.3	11.6	12.9	12.4
Alt 10a	Flow Change	0.2	0.1	2.2	-0.6	-0.1	0.2	-1.0	0.3	24.8	98.3	11.6	12.9	12.4
Alt 13a	Flow Change	0.2	0.1	2.2	-0.6	-0.1	0.2	-1.0	0.3	24.8	98.3	11.6	12.9	12.4
		Percent change in flow from Current Conditions												
Full Use	% Change	0%	0%	3%	-1%	0%	0%	-1%	1%	95%	150%	5%	5%	13%
No Act	% Change	0%	0%	3%	-1%	0%	0%	-1%	1%	95%	150%	5%	5%	13%
Alt 1a	% Change	0%	0%	3%	-1%	0%	0%	-1%	1%	95%	148%	5%	5%	13%
Alt 1c	% Change	0%	0%	3%	-1%	0%	0%	-1%	1%	95%	149%	5%	5%	13%
Alt 8a	% Change	0%	0%	3%	-1%	0%	0%	-1%	1%	95%	148%	5%	5%	13%
Alt 10a	% Change	0%	0%	3%	-1%	0%	0%	-1%	1%	95%	148%	5%	5%	13%
Alt 13a	% Change	0%	0%	3%	-1%	0%	0%	-1%	1%	95%	148%	5%	5%	13%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Conditions		96.6	122.1	93.9	87.1	79.4	151.1	209.9	185.2	462.9	375.3	180.9	157.4	183.5
Full Use	Flow	137.3	127.5	113.7	107.4	89.7	172.8	253.6	185.1	485.7	478.1	188.8	160.1	208.3
No Act	Flow	146.7	131.7	116.8	108.2	87.8	174.0	253.6	185.1	455.0	476.0	186.2	160.2	206.8
Alt 1a	Flow	146.8	128.9	109.4	102.7	84.9	173.5	253.1	185.1	447.5	472.9	186.2	160.7	204.3
Alt 1c	Flow	146.8	129.0	111.6	103.5	84.9	173.5	253.0	185.1	444.4	472.9	186.8	160.4	204.3
Alt 8a	Flow	146.8	128.6	108.6	102.8	84.9	173.5	253.1	185.1	449.0	472.5	186.2	160.5	204.3
Alt 10a	Flow	146.8	128.7	108.5	102.8	84.9	173.5	253.1	185.1	449.0	472.6	186.2	160.5	204.3
Alt 13a	Flow	146.8	128.5	108.6	102.8	84.9	173.5	253.0	185.1	449.0	473.1	186.2	160.4	204.3
		Flow change from Current Conditions												
Full Use	Flow Change	40.7	5.4	19.8	20.2	10.3	21.8	43.7	-0.1	22.8	102.8	7.9	2.6	24.8
No Act	Flow Change	50.1	9.7	23.0	21.1	8.4	22.9	43.7	-0.1	-7.9	100.6	5.3	2.8	23.3
Alt 1a	Flow Change	50.1	6.8	15.6	15.5	5.5	22.4	43.2	-0.1	-15.4	97.6	5.3	3.2	20.8
Alt 1c	Flow Change	50.1	6.9	17.7	16.4	5.5	22.5	43.1	-0.1	-18.5	97.6	5.9	2.9	20.8
Alt 8a	Flow Change	50.1	6.5	14.7	15.6	5.5	22.4	43.1	-0.1	-13.9	97.2	5.3	3.0	20.8
Alt 10a	Flow Change	50.1	6.6	14.6	15.7	5.5	22.4	43.2	-0.1	-13.9	97.3	5.3	3.0	20.8
Alt 13a	Flow Change	50.1	6.5	14.7	15.7	5.5	22.4	43.1	-0.1	-13.9	97.7	5.3	3.0	20.8
		Percent change in flow from Current Conditions												
Full Use	% Change	42%	4%	21%	23%	13%	14%	21%	0%	5%	27%	4%	2%	14%
No Act	% Change	52%	8%	24%	24%	11%	15%	21%	0%	-2%	27%	3%	2%	13%
Alt 1a	% Change	52%	6%	17%	18%	7%	15%	21%	0%	-3%	26%	3%	2%	11%
Alt 1c	% Change	52%	6%	19%	19%	7%	15%	21%	0%	-4%	26%	3%	2%	11%
Alt 8a	% Change	52%	5%	16%	18%	7%	15%	21%	0%	-3%	26%	3%	2%	11%
Alt 10a	% Change	52%	5%	16%	18%	7%	15%	21%	0%	-3%	26%	3%	2%	11%
Alt 13a	% Change	52%	5%	16%	18%	7%	15%	21%	0%	-3%	26%	3%	2%	11%

Table H-1.58. Colorado River below Windy Gap Diversion (cfs)

Flow Change and % Change are based on comparisons to Current Conditions		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		98.9	86.4	76.9	70.6	71.4	86.1	243.4	439.6	683.8	452.4	166.9	98.0	214.5
Full Use	Flow	95.4	86.5	75.9	71.1	73.1	87.9	181.3	300.7	637.1	376.1	149.2	95.6	185.8
No Act	Flow	94.9	85.5	75.4	71.0	72.9	87.7	181.3	297.3	618.0	372.3	148.7	95.3	183.4
Alt 1a	Flow	94.4	85.1	75.1	70.2	72.2	87.3	179.7	284.9	554.5	355.0	146.0	93.8	174.8
Alt 1c	Flow	94.4	85.1	75.1	70.2	72.2	87.3	179.6	284.8	556.7	354.8	146.0	93.7	175.0
Alt 8a	Flow	94.4	85.1	75.1	70.2	72.2	87.4	180.4	285.8	559.7	358.9	148.8	94.5	176.0
Alt 10a	Flow	94.4	85.1	75.1	70.2	72.2	87.4	180.4	285.7	559.5	359.0	148.8	94.5	176.0
Alt 13a	Flow	94.4	85.1	75.1	70.2	72.2	87.3	180.1	285.2	556.6	355.9	147.7	94.3	175.3
		Flow change from Current Conditions												
Full Use	Flow Change	-3.5	0.1	-1.0	0.5	1.7	1.7	-62.1	-138.8	-46.7	-76.2	-17.7	-2.4	-28.7
No Act	Flow Change	-3.9	-0.9	-1.5	0.5	1.5	1.6	-62.1	-142.3	-65.8	-80.1	-18.2	-2.7	-31.2
Alt 1a	Flow Change	-4.5	-1.3	-1.8	-0.3	0.8	1.1	-63.7	-154.7	-129.2	-97.4	-20.9	-4.2	-39.7
Alt 1c	Flow Change	-4.5	-1.3	-1.8	-0.3	0.8	1.1	-63.7	-154.8	-127.1	-97.5	-20.9	-4.3	-39.5
Alt 8a	Flow Change	-4.5	-1.3	-1.8	-0.3	0.8	1.2	-62.9	-153.8	-124.1	-93.5	-18.1	-3.5	-38.5
Alt 10a	Flow Change	-4.5	-1.3	-1.8	-0.3	0.8	1.2	-62.9	-153.9	-124.3	-93.4	-18.1	-3.5	-38.5
Alt 13a	Flow Change	-4.5	-1.3	-1.8	-0.3	0.8	1.1	-63.3	-154.4	-127.2	-96.4	-19.2	-3.7	-39.2
		Percent change in flow from Current Conditions												
Full Use	% Change	-4%	0%	-1%	1%	2%	2%	-26%	-32%	-7%	-17%	-11%	-2%	-13%
No Act	% Change	-4%	-1%	-2%	1%	2%	2%	-26%	-32%	-10%	-18%	-11%	-3%	-15%
Alt 1a	% Change	-5%	-1%	-2%	0%	1%	1%	-26%	-35%	-19%	-22%	-13%	-4%	-18%
Alt 1c	% Change	-5%	-1%	-2%	0%	1%	1%	-26%	-35%	-19%	-22%	-13%	-4%	-18%
Alt 8a	% Change	-5%	-1%	-2%	0%	1%	1%	-26%	-35%	-18%	-21%	-11%	-4%	-18%
Alt 10a	% Change	-5%	-1%	-2%	0%	1%	1%	-26%	-35%	-18%	-21%	-11%	-4%	-18%
Alt 13a	% Change	-5%	-1%	-2%	0%	1%	1%	-26%	-35%	-19%	-21%	-12%	-4%	-18%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Conditions		75.0	76.7	62.2	55.7	62.9	74.4	173.8	129.3	139.9	128.1	101.1	68.5	95.6
Full Use	Flow	77.3	77.6	63.4	57.4	64.7	76.2	174.5	132.8	138.8	119.9	97.6	68.2	95.7
No Act	Flow	77.3	77.6	63.4	57.4	64.7	76.2	174.5	132.8	138.8	119.9	97.6	68.2	95.7
Alt 1a	Flow	77.3	77.6	63.4	57.4	64.7	76.2	174.5	132.8	138.8	119.9	97.6	68.2	95.7
Alt 1c	Flow	77.3	77.6	63.4	57.4	64.7	76.2	174.5	132.8	138.8	119.9	97.6	68.2	95.7
Alt 8a	Flow	77.3	77.6	63.4	57.4	64.7	76.2	174.5	132.8	138.8	119.9	97.6	68.2	95.7
Alt 10a	Flow	77.3	77.6	63.4	57.4	64.7	76.2	174.5	132.8	138.8	119.9	97.6	68.2	95.7
Alt 13a	Flow	77.3	77.6	63.4	57.4	64.7	76.2	174.5	132.8	138.8	119.9	97.6	68.2	95.7
		Flow change from Current Conditions												
Full Use	Flow Change	2.3	0.9	1.2	1.7	1.8	1.7	0.7	3.5	-1.2	-8.2	-3.6	-0.3	0.0
No Act	Flow Change	2.3	0.9	1.2	1.7	1.8	1.7	0.7	3.5	-1.1	-8.2	-3.6	-0.3	0.1
Alt 1a	Flow Change	2.3	0.9	1.2	1.7	1.8	1.7	0.7	3.5	-1.1	-8.2	-3.6	-0.3	0.1
Alt 1c	Flow Change	2.3	0.9	1.2	1.7	1.8	1.7	0.7	3.5	-1.1	-8.2	-3.6	-0.3	0.0
Alt 8a	Flow Change	2.3	0.9	1.2	1.7	1.8	1.7	0.7	3.5	-1.1	-8.2	-3.6	-0.3	0.1
Alt 10a	Flow Change	2.3	0.9	1.2	1.7	1.8	1.7	0.7	3.5	-1.1	-8.2	-3.6	-0.3	0.1
Alt 13a	Flow Change	2.3	0.9	1.2	1.7	1.8	1.7	0.7	3.5	-1.1	-8.2	-3.6	-0.3	0.1
		Percent change in flow from Current Conditions												
Full Use	% Change	3%	1%	2%	3%	3%	2%	0%	3%	-1%	-6%	-4%	0%	0%
No Act	% Change	3%	1%	2%	3%	3%	2%	0%	3%	-1%	-6%	-4%	0%	0%
Alt 1a	% Change	3%	1%	2%	3%	3%	2%	0%	3%	-1%	-6%	-4%	0%	0%
Alt 1c	% Change	3%	1%	2%	3%	3%	2%	0%	3%	-1%	-6%	-4%	0%	0%
Alt 8a	% Change	3%	1%	2%	3%	3%	2%	0%	3%	-1%	-6%	-4%	0%	0%
Alt 10a	% Change	3%	1%	2%	3%	3%	2%	0%	3%	-1%	-6%	-4%	0%	0%
Alt 13a	% Change	3%	1%	2%	3%	3%	2%	0%	3%	-1%	-6%	-4%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Conditions		181.8	108.8	106.1	89.9	84.5	91.8	428.8	1,369.0	2,443.7	1,384.7	411.1	163.1	571.9
Full Use	Flow	155.0	113.1	94.5	84.2	85.8	92.4	229.8	955.1	2,430.0	1,442.8	368.7	142.1	516.1
No Act	Flow	154.8	110.0	91.9	84.2	85.8	92.4	229.8	947.0	2,381.1	1,430.1	361.2	140.3	509.0
Alt 1a	Flow	154.8	108.2	91.9	84.2	85.8	92.4	229.8	907.2	2,266.7	1,414.2	364.2	140.3	495.0
Alt 1c	Flow	154.8	108.2	91.9	84.2	85.8	92.4	229.8	907.5	2,273.3	1,415.4	365.2	140.1	495.7
Alt 8a	Flow	154.8	108.2	91.9	84.2	85.8	92.4	229.8	907.4	2,284.7	1,428.4	364.3	140.3	497.7
Alt 10a	Flow	154.8	108.2	91.9	84.2	85.8	92.4	229.8	907.3	2,283.9	1,428.8	364.3	140.3	497.6
Alt 13a	Flow	154.8	108.2	91.9	84.2	85.8	92.4	229.8	907.2	2,279.6	1,421.6	364.2	140.3	496.7
		Flow change from Current Conditions												
Full Use	Flow Change	-26.8	4.3	-11.6	-5.7	1.3	0.6	-199.1	-413.9	-13.7	58.0	-42.4	-21.0	-55.8
No Act	Flow Change	-27.0	1.2	-14.1	-5.7	1.3	0.6	-199.1	-422.0	-62.6	45.3	-49.9	-22.8	-62.9
Alt 1a	Flow Change	-27.0	-0.6	-14.1	-5.7	1.3	0.6	-199.1	-461.8	-176.9	29.5	-46.9	-22.8	-77.0
Alt 1c	Flow Change	-27.0	-0.6	-14.1	-5.7	1.3	0.6	-199.1	-461.5	-170.3	30.6	-45.9	-23.0	-76.2
Alt 8a	Flow Change	-27.0	-0.6	-14.1	-5.7	1.3	0.6	-199.1	-461.6	-159.0	43.6	-46.8	-22.8	-74.3
Alt 10a	Flow Change	-27.0	-0.6	-14.1	-5.7	1.3	0.6	-199.1	-461.7	-159.8	44.0	-46.8	-22.8	-74.3
Alt 13a	Flow Change	-27.0	-0.6	-14.1	-5.7	1.3	0.6	-199.1	-461.8	-164.1	36.8	-46.9	-22.8	-75.3
		Percent change in flow from Current Conditions												
Full Use	% Change	-15%	4%	-11%	-6%	2%	1%	-46%	-30%	-1%	4%	-10%	-13%	-10%
No Act	% Change	-15%	1%	-13%	-6%	2%	1%	-46%	-31%	-3%	3%	-12%	-14%	-11%
Alt 1a	% Change	-15%	-1%	-13%	-6%	2%	1%	-46%	-34%	-7%	2%	-11%	-14%	-13%
Alt 1c	% Change	-15%	-1%	-13%	-6%	2%	1%	-46%	-34%	-7%	2%	-11%	-14%	-13%
Alt 8a	% Change	-15%	-1%	-13%	-6%	2%	1%	-46%	-34%	-7%	3%	-11%	-14%	-13%
Alt 10a	% Change	-15%	-1%	-13%	-6%	2%	1%	-46%	-34%	-7%	3%	-11%	-14%	-13%
Alt 13a	% Change	-15%	-1%	-13%	-6%	2%	1%	-46%	-34%	-7%	3%	-11%	-14%	-13%

Table H-1.59. Colorado River below Confluence with Williams Fork River (cfs)

Flow Change and % Change are based on comparisons to Current Conditions														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		258.5	228.4	182.7	185.5	168.2	206.4	421.5	605.8	860.8	598.6	380.4	288.1	366.1
Full Use	Flow	268.8	233.2	186.0	189.8	175.5	207.2	375.8	485.2	831.8	588.5	354.0	286.7	348.5
No Act	Flow	269.9	231.2	186.1	192.3	174.2	212.3	375.6	477.7	802.2	583.1	354.8	289.6	345.8
Alt 1a	Flow	268.3	229.2	184.5	190.5	172.5	211.7	374.1	470.3	729.1	553.9	351.5	286.6	335.2
Alt 1c	Flow	268.4	229.2	184.8	190.6	172.5	211.7	374.1	470.2	730.9	553.9	351.5	286.9	335.4
Alt 8a	Flow	268.1	229.6	184.4	190.3	172.5	211.7	374.9	471.2	735.1	561.6	354.3	287.1	336.7
Alt 10a	Flow	268.2	229.6	184.4	190.3	172.5	211.7	374.9	471.2	734.9	561.9	354.4	287.1	336.8
Alt 13a	Flow	268.1	229.1	184.4	190.2	172.5	211.4	374.5	465.9	734.4	558.3	353.9	287.0	335.8
Flow change from Current Conditions														
Full Use	Flow Change	10.2	4.8	3.4	4.2	7.3	0.8	-45.7	-120.6	-29.1	-10.1	-26.4	-1.5	-16.9
No Act	Flow Change	11.4	2.7	3.4	6.7	6.0	6.0	-45.9	-128.2	-58.6	-15.4	-25.6	1.5	-19.7
Alt 1a	Flow Change	9.8	0.7	1.8	4.9	4.4	5.3	-47.4	-135.5	-131.8	-44.6	-29.0	-1.5	-30.2
Alt 1c	Flow Change	9.8	0.8	2.1	5.0	4.4	5.4	-47.4	-135.6	-130.0	-44.7	-29.0	-1.2	-30.0
Alt 8a	Flow Change	9.6	1.2	1.7	4.7	4.4	5.4	-46.6	-134.6	-125.7	-37.0	-26.2	-1.0	-28.7
Alt 10a	Flow Change	9.6	1.2	1.7	4.7	4.4	5.4	-46.6	-134.7	-125.9	-36.7	-26.1	-1.0	-28.7
Alt 13a	Flow Change	9.6	0.7	1.7	4.7	4.4	5.1	-47.0	-139.9	-126.5	-40.3	-26.5	-1.2	-29.6
Percent change in flow from Current Conditions														
Full Use	% Change	4%	2%	2%	2%	4%	0%	-11%	-20%	-3%	-2%	-7%	-1%	-5%
No Act	% Change	4%	1%	2%	4%	4%	3%	-11%	-21%	-7%	-3%	-7%	1%	-5%
Alt 1a	% Change	4%	0%	1%	3%	3%	3%	-11%	-22%	-15%	-7%	-8%	-1%	-8%
Alt 1c	% Change	4%	0%	1%	3%	3%	3%	-11%	-22%	-15%	-7%	-8%	0%	-8%
Alt 8a	% Change	4%	1%	1%	3%	3%	3%	-11%	-22%	-15%	-6%	-7%	0%	-8%
Alt 10a	% Change	4%	1%	1%	3%	3%	3%	-11%	-22%	-15%	-6%	-7%	0%	-8%
Alt 13a	% Change	4%	0%	1%	3%	3%	2%	-11%	-23%	-15%	-7%	-7%	0%	-8%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Conditions		235.8	202.3	151.0	139.5	142.6	155.8	274.9	171.8	151.2	190.4	333.4	305.8	204.7
Full Use	Flow	238.2	203.2	154.3	140.4	144.2	157.7	274.3	174.6	173.4	280.7	340.2	318.0	216.6
No Act	Flow	238.3	203.2	154.3	140.4	144.2	157.7	274.3	174.6	173.4	280.7	341.4	318.0	216.7
Alt 1a	Flow	238.3	203.2	154.3	140.4	144.2	157.7	274.3	174.6	173.4	279.1	340.9	318.0	216.5
Alt 1c	Flow	238.2	203.2	154.3	140.4	144.2	157.7	274.3	174.6	173.4	279.9	340.9	318.0	216.6
Alt 8a	Flow	238.3	203.2	154.3	140.4	144.2	157.7	274.3	174.6	173.4	279.1	340.9	318.0	216.5
Alt 10a	Flow	238.3	203.2	154.3	140.4	144.2	157.7	274.3	174.6	173.4	279.1	340.9	318.0	216.5
Alt 13a	Flow	238.3	203.2	154.3	140.4	144.2	157.7	274.3	174.6	173.4	279.1	340.9	318.0	216.5
Flow change from Current Conditions														
Full Use	Flow Change	2.5	0.9	3.3	1.0	1.6	1.9	-0.6	2.8	22.2	90.3	6.8	12.1	12.1
No Act	Flow Change	2.5	1.0	3.3	1.0	1.6	1.9	-0.6	2.8	22.2	90.3	8.0	12.1	12.2
Alt 1a	Flow Change	2.5	1.0	3.3	1.0	1.6	1.9	-0.6	2.8	22.2	88.7	7.5	12.1	12.0
Alt 1c	Flow Change	2.5	1.0	3.3	1.0	1.6	1.9	-0.6	2.8	22.2	89.5	7.5	12.1	12.1
Alt 8a	Flow Change	2.5	1.0	3.3	1.0	1.6	1.9	-0.6	2.8	22.2	88.7	7.5	12.2	12.0
Alt 10a	Flow Change	2.5	1.0	3.3	1.0	1.6	1.9	-0.6	2.8	22.2	88.7	7.5	12.2	12.0
Alt 13a	Flow Change	2.5	1.0	3.3	1.0	1.6	1.9	-0.6	2.8	22.2	88.7	7.5	12.1	12.0
Percent change in flow from Current Conditions														
Full Use	% Change	1%	0%	2%	1%	1%	1%	0%	2%	15%	47%	2%	4%	6%
No Act	% Change	1%	0%	2%	1%	1%	1%	0%	2%	15%	47%	2%	4%	6%
Alt 1a	% Change	1%	0%	2%	1%	1%	1%	0%	2%	15%	47%	2%	4%	6%
Alt 1c	% Change	1%	0%	2%	1%	1%	1%	0%	2%	15%	47%	2%	4%	6%
Alt 8a	% Change	1%	0%	2%	1%	1%	1%	0%	2%	15%	47%	2%	4%	6%
Alt 10a	% Change	1%	0%	2%	1%	1%	1%	0%	2%	15%	47%	2%	4%	6%
Alt 13a	% Change	1%	0%	2%	1%	1%	1%	0%	2%	15%	47%	2%	4%	6%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Conditions		304.5	255.0	223.0	202.1	191.2	273.3	764.8	1,721.7	2,997.6	1,816.1	609.5	330.6	809.4
Full Use	Flow	318.5	264.6	231.5	216.3	202.7	295.7	612.6	1,307.6	3,002.5	1,974.4	574.5	311.1	776.0
No Act	Flow	327.8	265.9	232.0	217.2	200.8	296.8	612.6	1,299.5	2,922.9	1,959.5	564.5	309.4	767.4
Alt 1a	Flow	327.9	261.3	224.6	211.7	197.8	296.3	612.0	1,260.3	2,800.4	1,940.7	567.4	309.8	750.9
Alt 1c	Flow	327.9	261.4	226.7	212.5	197.9	296.3	612.0	1,260.6	2,804.0	1,941.6	569.1	309.3	751.6
Alt 8a	Flow	327.9	261.0	223.7	211.8	197.8	296.3	612.0	1,260.5	2,819.8	1,954.6	567.5	309.6	753.5
Alt 10a	Flow	327.9	261.1	223.7	211.8	197.8	296.3	612.0	1,260.4	2,818.9	1,955.0	567.5	309.6	753.5
Alt 13a	Flow	327.9	261.0	223.7	211.8	197.8	296.3	612.0	1,260.4	2,814.7	1,948.2	567.3	309.6	752.6
Flow change from Current Conditions														
Full Use	Flow Change	14.0	9.6	8.5	14.2	11.6	22.3	-152.2	-414.1	4.8	158.3	-35.0	-19.5	-31.5
No Act	Flow Change	23.3	10.9	9.0	15.1	9.6	23.5	-152.2	-422.2	-74.7	143.3	-45.0	-21.2	-40.0
Alt 1a	Flow Change	23.4	6.3	1.6	9.6	6.7	23.0	-152.7	-461.4	-197.2	124.6	-42.1	-20.8	-56.6
Alt 1c	Flow Change	23.4	6.4	3.8	10.4	6.7	23.0	-152.8	-461.1	-193.6	125.5	-40.4	-21.3	-55.8
Alt 8a	Flow Change	23.4	6.0	0.7	9.7	6.7	22.9	-152.7	-461.2	-177.8	138.4	-42.0	-21.0	-53.9
Alt 10a	Flow Change	23.4	6.1	0.7	9.7	6.7	22.9	-152.7	-461.3	-178.7	138.9	-42.0	-21.0	-53.9
Alt 13a	Flow Change	23.4	6.0	0.7	9.7	6.7	22.9	-152.8	-461.3	-182.9	132.1	-42.2	-21.0	-54.9
Percent change in flow from Current Conditions														
Full Use	% Change	5%	4%	4%	7%	6%	8%	-20%	-24%	0%	9%	-6%	-6%	-4%
No Act	% Change	8%	4%	4%	7%	5%	9%	-20%	-25%	-2%	8%	-7%	-6%	-5%
Alt 1a	% Change	8%	2%	1%	5%	3%	8%	-20%	-27%	-7%	7%	-7%	-6%	-7%
Alt 1c	% Change	8%	3%	2%	5%	4%	8%	-20%	-27%	-6%	7%	-7%	-6%	-7%
Alt 8a	% Change	8%	2%	0%	5%	3%	8%	-20%	-27%	-6%	8%	-7%	-6%	-7%
Alt 10a	% Change	8%	2%	0%	5%	3%	8%	-20%	-27%	-6%	8%	-7%	-6%	-7%
Alt 13a	% Change	8%	2%	0%	5%	3%	8%	-20%	-27%	-6%	7%	-7%	-6%	-7%

Table H-1.60. Colorado River near Kremmling Gage (cfs)

Flow Change and % Change are based on comparisons to Current Conditions		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		752.3	583.7	499.3	482.6	427.8	625.0	770.8	1,333.1	2,295.0	1,639.3	1,212.4	935.4	963.1
Full Use	Flow	753.1	566.0	496.8	489.0	430.9	632.0	720.1	1,181.5	1,997.8	1,504.4	1,087.6	900.4	896.6
No Act	Flow	751.1	563.7	495.5	488.9	428.6	635.0	721.7	1,169.3	1,896.4	1,451.2	1,062.5	895.5	879.9
Alt 1a	Flow	750.5	562.5	494.6	487.9	427.9	634.3	719.5	1,170.9	1,870.8	1,430.8	1,075.1	896.2	876.8
Alt 1c	Flow	750.7	562.5	494.6	487.9	427.8	634.2	719.5	1,170.8	1,869.9	1,428.8	1,074.6	895.9	876.4
Alt 8a	Flow	750.1	563.1	494.9	487.9	428.3	635.3	719.6	1,172.0	1,880.1	1,442.5	1,077.4	896.9	879.0
Alt 10a	Flow	750.0	563.0	495.0	487.9	428.3	635.2	719.6	1,172.0	1,879.8	1,442.3	1,077.4	896.9	879.0
Alt 13a	Flow	750.0	562.7	494.9	487.8	428.3	634.7	719.5	1,166.5	1,877.4	1,437.6	1,077.8	896.7	877.8
		Flow change from Current Conditions												
Full Use	Flow Change	0.8	-17.7	-2.5	6.4	3.1	7.0	-50.7	-151.6	-297.2	-134.9	-124.8	-35.0	-66.4
No Act	Flow Change	-1.1	-20.0	-3.8	6.3	0.7	10.0	-49.0	-163.7	-398.6	-188.1	-149.9	-39.8	-83.1
Alt 1a	Flow Change	-1.8	-21.2	-4.7	5.3	0.1	9.3	-51.2	-162.2	-424.2	-208.5	-137.3	-39.2	-86.3
Alt 1c	Flow Change	-1.6	-21.2	-4.7	5.3	0.0	9.2	-51.2	-162.3	-425.1	-210.5	-137.8	-39.5	-86.6
Alt 8a	Flow Change	-2.2	-20.6	-4.4	5.3	0.5	10.3	-51.2	-161.1	-415.0	-196.8	-135.0	-38.4	-84.1
Alt 10a	Flow Change	-2.3	-20.7	-4.4	5.4	0.5	10.2	-51.2	-161.0	-415.3	-197.0	-135.0	-38.4	-84.1
Alt 13a	Flow Change	-2.2	-21.0	-4.4	5.2	0.4	9.7	-51.2	-166.5	-417.6	-201.7	-134.6	-38.7	-85.2
		Percent change in flow from Current Conditions												
Full Use	% Change	0%	-3%	0%	1%	1%	1%	-7%	-11%	-13%	-8%	-10%	-4%	-7%
No Act	% Change	0%	-3%	-1%	1%	0%	2%	-6%	-12%	-17%	-11%	-12%	-4%	-9%
Alt 1a	% Change	0%	-4%	-1%	1%	0%	1%	-7%	-12%	-18%	-13%	-11%	-4%	-9%
Alt 1c	% Change	0%	-4%	-1%	1%	0%	1%	-7%	-12%	-19%	-13%	-11%	-4%	-9%
Alt 8a	% Change	0%	-4%	-1%	1%	0%	2%	-7%	-12%	-18%	-12%	-11%	-4%	-9%
Alt 10a	% Change	0%	-4%	-1%	1%	0%	2%	-7%	-12%	-18%	-12%	-11%	-4%	-9%
Alt 13a	% Change	0%	-4%	-1%	1%	0%	2%	-7%	-12%	-18%	-12%	-11%	-4%	-9%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Conditions		727.9	474.1	396.5	368.1	342.5	465.0	616.2	429.4	393.0	864.1	1,143.1	862.1	590.2
Full Use	Flow	729.9	474.8	400.2	369.4	346.8	470.3	626.3	436.4	386.4	873.6	1,041.6	848.5	583.7
No Act	Flow	730.4	474.6	399.9	368.4	346.8	469.9	626.3	436.4	386.4	873.6	1,041.7	848.5	583.6
Alt 1a	Flow	731.3	474.2	399.5	368.1	346.7	469.5	626.3	436.4	386.4	873.6	1,041.8	848.4	583.5
Alt 1c	Flow	731.1	473.9	399.3	367.9	346.7	469.3	626.3	436.4	386.4	873.6	1,041.7	848.4	583.4
Alt 8a	Flow	731.4	474.6	400.0	368.5	346.8	470.0	626.3	436.4	386.4	873.6	1,041.8	848.5	583.7
Alt 10a	Flow	731.4	474.7	400.0	368.5	346.8	470.0	626.3	436.4	386.4	873.6	1,041.8	848.5	583.7
Alt 13a	Flow	731.3	474.3	399.7	368.2	346.8	469.7	626.3	436.4	386.4	873.6	1,041.8	848.4	583.6
		Flow change from Current Conditions												
Full Use	Flow Change	2.0	0.8	3.7	1.3	4.3	5.3	10.1	6.9	-6.6	9.5	-101.5	-13.6	-6.5
No Act	Flow Change	2.5	0.5	3.5	0.3	4.3	4.9	10.1	6.9	-6.6	9.5	-101.4	-13.7	-6.6
Alt 1a	Flow Change	3.4	0.1	3.0	0.0	4.3	4.5	10.1	6.9	-6.6	9.5	-101.3	-13.7	-6.7
Alt 1c	Flow Change	3.2	-0.1	2.8	-0.2	4.3	4.3	10.1	6.9	-6.6	9.5	-101.4	-13.7	-6.8
Alt 8a	Flow Change	3.5	0.6	3.5	0.4	4.3	5.0	10.1	6.9	-6.6	9.5	-101.3	-13.7	-6.5
Alt 10a	Flow Change	3.5	0.6	3.5	0.4	4.3	5.0	10.1	6.9	-6.6	9.5	-101.3	-13.7	-6.5
Alt 13a	Flow Change	3.4	0.2	3.2	0.1	4.3	4.7	10.1	6.9	-6.6	9.5	-101.3	-13.7	-6.6
		Percent change in flow from Current Conditions												
Full Use	% Change	0%	0%	1%	0%	1%	1%	2%	2%	-2%	1%	-9%	-2%	-1%
No Act	% Change	0%	0%	1%	0%	1%	1%	2%	2%	-2%	1%	-9%	-2%	-1%
Alt 1a	% Change	0%	0%	1%	0%	1%	1%	2%	2%	-2%	1%	-9%	-2%	-1%
Alt 1c	% Change	0%	0%	1%	0%	1%	1%	2%	2%	-2%	1%	-9%	-2%	-1%
Alt 8a	% Change	0%	0%	1%	0%	1%	1%	2%	2%	-2%	1%	-9%	-2%	-1%
Alt 10a	% Change	0%	0%	1%	0%	1%	1%	2%	2%	-2%	1%	-9%	-2%	-1%
Alt 13a	% Change	0%	0%	1%	0%	1%	1%	2%	2%	-2%	1%	-9%	-2%	-1%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Conditions		763.9	751.0	671.8	604.2	544.1	959.4	1,249.9	3,193.0	6,252.0	3,749.7	1,548.9	921.7	1,767.5
Full Use	Flow	754.9	677.3	638.8	573.1	504.2	1,008.3	1,035.4	2,718.9	6,091.0	3,825.9	1,463.8	889.7	1,681.8
No Act	Flow	754.5	673.4	634.7	570.0	499.8	1,004.5	1,035.3	2,692.8	5,817.7	3,794.6	1,448.6	887.1	1,651.1
Alt 1a	Flow	754.5	673.4	634.1	569.8	499.7	1,005.9	1,034.9	2,678.4	5,818.6	3,747.5	1,446.4	887.4	1,645.9
Alt 1c	Flow	754.5	673.3	634.1	569.7	499.6	1,005.9	1,034.8	2,678.5	5,813.7	3,746.5	1,447.5	887.2	1,645.4
Alt 8a	Flow	754.5	673.4	634.1	569.9	499.7	1,005.9	1,034.9	2,678.6	5,862.8	3,769.0	1,446.5	887.4	1,651.4
Alt 10a	Flow	754.5	673.4	634.1	569.8	499.7	1,005.9	1,034.9	2,678.4	5,862.8	3,767.2	1,446.5	887.4	1,651.2
Alt 13a	Flow	754.5	673.4	634.1	569.8	499.7	1,005.9	1,034.8	2,678.4	5,846.2	3,759.2	1,445.9	887.4	1,649.1
		Flow change from Current Conditions												
Full Use	Flow Change	-9.0	-73.7	-33.1	-31.1	-39.9	49.0	-214.5	-474.0	-161.0	76.3	-85.1	-32.0	-85.7
No Act	Flow Change	-9.4	-77.6	-37.2	-34.2	-44.3	45.1	-214.6	-500.2	-434.2	44.9	-100.3	-34.6	-116.4
Alt 1a	Flow Change	-9.4	-77.6	-37.7	-34.4	-44.3	46.5	-215.0	-514.6	-433.3	-2.2	-102.5	-34.3	-121.6
Alt 1c	Flow Change	-9.4	-77.6	-37.8	-34.5	-44.5	46.5	-215.1	-514.5	-438.2	-3.2	-101.4	-34.5	-122.0
Alt 8a	Flow Change	-9.4	-77.6	-37.7	-34.4	-44.4	46.5	-215.0	-514.4	-389.1	19.3	-102.4	-34.3	-116.1
Alt 10a	Flow Change	-9.4	-77.6	-37.7	-34.4	-44.4	46.5	-215.0	-514.5	-389.1	17.6	-102.4	-34.3	-116.2
Alt 13a	Flow Change	-9.4	-77.6	-37.7	-34.4	-44.4	46.5	-215.1	-514.5	-405.7	9.6	-103.0	-34.3	-118.3
		Percent change in flow from Current Conditions												
Full Use	% Change	-1%	-10%	-5%	-5%	-7%	5%	-17%	-15%	-3%	2%	-5%	-3%	-5%
No Act	% Change	-1%	-10%	-6%	-6%	-8%	5%	-17%	-16%	-7%	1%	-6%	-4%	-7%
Alt 1a	% Change	-1%	-10%	-6%	-6%	-8%	5%	-17%	-16%	-7%	0%	-7%	-4%	-7%
Alt 1c	% Change	-1%	-10%	-6%	-6%	-8%	5%	-17%	-16%	-7%	0%	-7%	-4%	-7%
Alt 8a	% Change	-1%	-10%	-6%	-6%	-8%	5%	-17%	-16%	-6%	1%	-7%	-4%	-7%
Alt 10a	% Change	-1%	-10%	-6%	-6%	-8%	5%	-17%	-16%	-6%	0%	-7%	-4%	-7%
Alt 13a	% Change	-1%	-10%	-6%	-6%	-8%	5%	-17%	-16%	-6%	0%	-7%	-4%	-7%

Table H-1.61. Wolford Mountain Reservoir Outflow (cfs)

Flow Change and % Change are based on comparisons to Current Conditions														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		23.4	34.2	16.4	26.9	21.1	33.5	78.6	318.1	272.2	81.7	79.3	64.6	87.5
Full Use	Flow	33.8	25.7	22.6	40.3	27.8	44.5	75.4	298.6	265.6	93.3	61.3	65.8	87.9
No Act	Flow	33.8	25.7	22.6	39.0	27.3	44.4	75.4	297.9	265.7	93.4	62.2	69.1	88.0
Alt 1a	Flow	33.8	25.7	22.6	39.0	27.3	44.3	75.4	298.1	265.7	93.2	61.8	68.6	88.0
Alt 1c	Flow	33.8	25.7	22.6	39.0	27.2	44.3	75.4	298.1	265.7	93.2	61.8	68.6	88.0
Alt 8a	Flow	33.8	25.7	22.6	38.9	27.6	44.3	75.4	298.1	265.7	93.2	61.8	68.3	88.0
Alt 10a	Flow	33.8	25.7	22.6	38.9	27.6	44.3	75.4	298.2	265.7	93.2	61.8	68.3	88.0
Alt 13a	Flow	33.8	25.7	22.6	38.9	27.6	44.3	75.4	298.1	265.7	93.3	61.8	68.3	88.0
Flow change from Current Conditions														
Full Use	Flow Change	10.4	-8.5	6.2	13.4	6.6	11.0	-3.2	-19.5	-6.6	11.7	-18.0	1.2	0.4
No Act	Flow Change	10.4	-8.4	6.1	12.1	6.2	10.9	-3.2	-20.2	-6.5	11.8	-17.1	4.5	0.5
Alt 1a	Flow Change	10.4	-8.4	6.1	12.1	6.2	10.8	-3.1	-19.9	-6.5	11.5	-17.5	4.0	0.5
Alt 1c	Flow Change	10.4	-8.4	6.1	12.1	6.1	10.8	-3.1	-19.9	-6.5	11.5	-17.5	4.0	0.5
Alt 8a	Flow Change	10.4	-8.4	6.1	12.0	6.5	10.8	-3.1	-20.0	-6.5	11.5	-17.5	3.7	0.5
Alt 10a	Flow Change	10.4	-8.4	6.1	12.0	6.5	10.8	-3.1	-19.9	-6.5	11.6	-17.5	3.7	0.5
Alt 13a	Flow Change	10.4	-8.4	6.1	12.0	6.5	10.8	-3.1	-20.0	-6.5	11.6	-17.5	3.7	0.5
Percent change in flow from Current Conditions														
Full Use	% Change	44%	-25%	37%	50%	31%	33%	-4%	-6%	-2%	14%	-23%	2%	0%
No Act	% Change	44%	-25%	37%	45%	29%	32%	-4%	-6%	-2%	14%	-22%	7%	1%
Alt 1a	% Change	44%	-25%	37%	45%	29%	32%	-4%	-6%	-2%	14%	-22%	6%	1%
Alt 1c	% Change	44%	-25%	37%	45%	29%	32%	-4%	-6%	-2%	14%	-22%	6%	1%
Alt 8a	% Change	44%	-25%	37%	45%	31%	32%	-4%	-6%	-2%	14%	-22%	6%	1%
Alt 10a	% Change	44%	-25%	37%	45%	31%	32%	-4%	-6%	-2%	14%	-22%	6%	1%
Alt 13a	% Change	44%	-25%	37%	45%	31%	32%	-4%	-6%	-2%	14%	-22%	6%	1%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Conditions		14.5	13.7	9.2	21.3	8.9	27.8	86.4	89.5	63.7	42.6	142.0	207.8	60.6
Full Use	Flow	24.7	22.6	17.2	25.9	13.9	34.7	95.4	94.6	67.2	62.0	109.8	208.0	64.7
No Act	Flow	24.7	22.6	17.2	25.1	13.9	34.7	95.4	94.6	67.2	62.0	109.8	208.8	64.7
Alt 1a	Flow	24.7	22.6	17.2	25.1	13.9	34.7	95.4	94.6	67.2	62.0	109.8	208.8	64.7
Alt 1c	Flow	24.7	22.6	17.2	25.1	13.9	34.7	95.4	94.6	67.2	62.0	109.8	208.8	64.7
Alt 8a	Flow	24.7	22.6	17.2	25.1	13.9	34.7	95.4	94.6	67.2	62.0	109.8	208.8	64.7
Alt 10a	Flow	24.7	22.6	17.2	25.1	13.9	34.7	95.4	94.6	67.2	62.0	109.8	208.8	64.7
Alt 13a	Flow	24.7	22.6	17.2	25.2	13.9	34.7	95.4	94.6	67.2	62.0	109.8	208.8	64.7
Flow change from Current Conditions														
Full Use	Flow Change	10.2	8.9	8.0	4.6	4.9	6.9	9.0	5.1	3.4	19.4	-32.2	0.2	4.0
No Act	Flow Change	10.2	8.9	8.0	3.9	4.9	6.9	9.0	5.1	3.4	19.4	-32.2	1.0	4.0
Alt 1a	Flow Change	10.2	8.9	8.0	3.9	4.9	6.9	9.0	5.1	3.4	19.4	-32.2	1.0	4.0
Alt 1c	Flow Change	10.2	8.9	8.0	3.9	4.9	6.9	9.0	5.1	3.4	19.4	-32.2	1.0	4.0
Alt 8a	Flow Change	10.2	8.9	8.0	3.9	4.9	6.9	9.0	5.1	3.4	19.4	-32.2	1.0	4.0
Alt 10a	Flow Change	10.2	8.9	8.0	3.9	4.9	6.9	9.0	5.1	3.4	19.4	-32.2	1.0	4.0
Alt 13a	Flow Change	10.2	8.9	8.0	3.9	4.9	6.9	9.0	5.1	3.4	19.4	-32.2	1.0	4.0
Percent change in flow from Current Conditions														
Full Use	% Change	70%	65%	87%	22%	55%	25%	10%	6%	5%	45%	-23%	0%	7%
No Act	% Change	70%	65%	87%	18%	55%	25%	10%	6%	5%	45%	-23%	0%	7%
Alt 1a	% Change	70%	65%	87%	18%	55%	25%	10%	6%	5%	45%	-23%	0%	7%
Alt 1c	% Change	70%	65%	87%	18%	55%	25%	10%	6%	5%	45%	-23%	0%	7%
Alt 8a	% Change	70%	65%	87%	18%	55%	25%	10%	6%	5%	45%	-23%	0%	7%
Alt 10a	% Change	70%	65%	87%	18%	55%	25%	10%	6%	5%	45%	-23%	0%	7%
Alt 13a	% Change	70%	65%	87%	18%	55%	25%	10%	6%	5%	45%	-23%	0%	7%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Conditions		23.1	67.0	20.7	21.5	23.1	31.5	136.7	624.5	483.9	152.9	42.7	41.0	139.1
Full Use	Flow	35.5	29.8	29.2	27.0	29.2	74.0	70.7	612.1	489.2	163.6	47.1	52.1	138.3
No Act	Flow	35.7	29.9	29.1	27.0	29.6	73.0	70.7	612.5	489.2	163.7	47.1	52.0	138.3
Alt 1a	Flow	35.7	29.8	29.1	27.0	29.9	72.9	70.7	612.6	489.2	163.7	47.7	51.4	138.3
Alt 1c	Flow	35.7	29.8	29.1	27.0	29.7	73.0	70.7	612.6	489.2	163.7	47.7	51.4	138.3
Alt 8a	Flow	35.7	29.8	29.1	27.0	29.8	73.0	70.7	612.5	489.2	163.7	47.7	51.4	138.3
Alt 10a	Flow	35.7	29.8	29.1	27.0	29.8	73.0	70.7	612.5	489.2	163.7	47.7	51.4	138.3
Alt 13a	Flow	35.7	29.8	29.1	27.0	29.8	73.0	70.7	612.5	489.2	163.7	47.7	51.4	138.3
Flow change from Current Conditions														
Full Use	Flow Change	12.4	-37.2	8.4	5.5	6.1	42.5	-66.0	-12.5	5.3	10.6	4.4	11.1	-0.8
No Act	Flow Change	12.5	-37.1	8.4	5.5	6.4	41.5	-66.0	-12.0	5.3	10.8	4.4	11.0	-0.8
Alt 1a	Flow Change	12.5	-37.2	8.4	5.4	6.8	41.3	-66.0	-11.9	5.3	10.7	5.0	10.4	-0.8
Alt 1c	Flow Change	12.5	-37.2	8.4	5.5	6.6	41.4	-66.0	-11.9	5.3	10.8	5.0	10.4	-0.8
Alt 8a	Flow Change	12.5	-37.1	8.4	5.4	6.7	41.5	-66.0	-12.0	5.3	10.7	5.0	10.4	-0.8
Alt 10a	Flow Change	12.5	-37.1	8.4	5.4	6.7	41.5	-66.0	-12.0	5.3	10.7	5.0	10.4	-0.8
Alt 13a	Flow Change	12.5	-37.1	8.4	5.4	6.7	41.5	-66.0	-12.0	5.3	10.7	5.0	10.4	-0.8
Percent change in flow from Current Conditions														
Full Use	% Change	54%	-56%	41%	26%	26%	135%	-48%	-2%	1%	7%	10%	27%	-1%
No Act	% Change	54%	-55%	41%	26%	28%	131%	-48%	-2%	1%	7%	10%	27%	-1%
Alt 1a	% Change	54%	-55%	41%	25%	29%	131%	-48%	-2%	1%	7%	12%	25%	-1%
Alt 1c	% Change	54%	-55%	41%	25%	29%	131%	-48%	-2%	1%	7%	12%	25%	-1%
Alt 8a	% Change	54%	-55%	41%	25%	29%	131%	-48%	-2%	1%	7%	12%	25%	-1%
Alt 10a	% Change	54%	-55%	41%	25%	29%	131%	-48%	-2%	1%	7%	12%	25%	-1%
Alt 13a	% Change	54%	-55%	41%	25%	29%	131%	-48%	-2%	1%	7%	12%	25%	-1%

Table H-1.62. Roberts Tunnel Diversions (cfs)

Flow Change and % Change are based on comparisons to Current Conditions														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		121.5	70.8	77.3	71.3	73.6	63.8	83.3	43.6	62.1	108.1	183.2	194.8	96.1
Full Use	Flow	175.0	89.7	96.4	82.9	84.3	72.0	93.9	66.4	106.7	173.0	259.8	303.7	133.7
No Act	Flow	188.9	95.2	105.1	93.4	95.2	81.9	104.1	75.7	115.7	198.7	290.0	330.4	147.9
Alt 1a	Flow	170.9	59.9	63.1	53.2	54.0	47.2	82.6	124.6	156.7	237.7	304.1	326.7	140.1
Alt 1c	Flow	171.0	60.1	63.3	53.0	54.2	47.2	82.3	124.7	156.9	238.5	307.6	328.7	140.6
Alt 8a	Flow	170.8	60.1	63.3	53.7	54.4	47.4	81.5	123.6	155.1	236.1	301.8	324.6	139.4
Alt 10a	Flow	170.5	60.1	63.3	53.7	54.4	47.4	81.6	124.0	155.3	236.1	301.7	324.9	139.4
Alt 13a	Flow	170.3	59.6	63.0	52.9	54.2	47.0	81.9	124.6	155.8	238.1	302.6	325.6	139.6
Flow change from Current Conditions														
Full Use	Div. Change	53.4	18.9	19.1	11.6	10.7	8.2	10.6	22.9	44.6	64.9	76.5	108.9	37.5
No Act	Div. Change	67.4	24.4	27.8	22.1	21.5	18.1	20.8	32.2	53.6	90.6	106.8	135.5	51.7
Alt 1a	Div. Change	49.4	-10.9	-14.2	-18.1	-19.6	-16.7	-0.7	81.0	94.6	129.6	120.9	131.9	43.9
Alt 1c	Div. Change	49.5	-10.8	-14.0	-18.3	-19.5	-16.6	-1.0	81.1	94.8	130.4	124.4	133.9	44.5
Alt 8a	Div. Change	49.3	-10.7	-14.0	-17.6	-19.2	-16.4	-1.8	80.0	93.0	128.0	118.6	129.7	43.2
Alt 10a	Div. Change	49.0	-10.7	-14.0	-17.6	-19.2	-16.4	-1.6	80.4	93.2	128.0	118.5	130.1	43.3
Alt 13a	Div. Change	48.7	-11.2	-14.3	-18.4	-19.4	-16.9	-1.4	81.0	93.7	130.0	119.3	130.7	43.5
Percent change in flow from Current Conditions														
Full Use	% Change	44%	27%	25%	16%	14%	13%	13%	52%	72%	60%	42%	56%	39%
No Act	% Change	55%	34%	36%	31%	29%	28%	25%	74%	86%	84%	58%	70%	54%
Alt 1a	% Change	41%	-15%	-18%	-25%	-27%	-26%	-1%	186%	152%	120%	66%	68%	46%
Alt 1c	% Change	41%	-15%	-18%	-26%	-26%	-26%	-1%	186%	153%	121%	68%	69%	46%
Alt 8a	% Change	41%	-15%	-18%	-25%	-26%	-26%	-2%	184%	150%	118%	65%	67%	45%
Alt 10a	% Change	40%	-15%	-18%	-25%	-26%	-26%	-2%	185%	150%	118%	65%	67%	45%
Alt 13a	% Change	40%	-16%	-19%	-26%	-26%	-26%	-2%	186%	151%	120%	65%	67%	45%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Conditions		185.3	76.9	74.1	88.8	94.5	71.9	209.6	198.6	244.8	317.9	285.9	226.2	172.9
Full Use	Flow	246.1	115.5	110.4	104.0	106.6	86.5	226.3	251.7	314.8	377.8	263.4	264.1	205.6
No Act	Flow	266.7	121.6	121.6	115.2	119.4	99.3	233.0	253.4	322.9	392.7	261.7	241.2	212.4
Alt 1a	Flow	249.0	84.0	81.7	77.5	80.1	55.2	214.6	292.6	372.7	419.8	285.0	241.8	204.5
Alt 1c	Flow	248.4	84.0	81.7	77.5	80.4	55.2	214.2	292.4	371.8	418.0	285.0	240.1	204.1
Alt 8a	Flow	250.1	84.5	81.8	78.0	80.4	55.4	213.9	292.7	372.0	419.7	283.9	242.0	204.5
Alt 10a	Flow	249.1	84.8	81.8	77.6	80.1	55.6	214.3	292.8	372.5	418.8	283.4	241.8	204.4
Alt 13a	Flow	246.1	84.0	81.7	77.5	80.7	55.3	214.2	293.2	373.2	418.8	285.7	242.1	204.4
Flow change from Current Conditions														
Full Use	Div. Change	60.8	38.6	36.4	15.2	12.1	14.6	16.7	53.0	70.0	59.9	-22.6	37.9	32.7
No Act	Div. Change	81.3	44.7	47.6	26.4	24.9	27.4	23.4	54.8	78.1	74.8	-24.3	15.0	39.5
Alt 1a	Div. Change	63.7	7.1	7.6	-11.3	-14.4	-16.7	5.0	94.0	127.9	101.9	-1.0	15.6	31.6
Alt 1c	Div. Change	63.1	7.1	7.6	-11.3	-14.1	-16.7	4.6	93.7	127.0	100.1	-0.9	13.9	31.2
Alt 8a	Div. Change	64.8	7.5	7.7	-10.8	-14.1	-16.5	4.3	94.1	127.3	101.8	-2.0	15.8	31.7
Alt 10a	Div. Change	63.8	7.9	7.7	-11.2	-14.4	-16.3	4.7	94.2	127.7	100.9	-2.6	15.6	31.5
Alt 13a	Div. Change	60.8	7.1	7.6	-11.3	-13.8	-16.6	4.6	94.5	128.4	100.9	-0.3	15.9	31.5
Percent change in flow from Current Conditions														
Full Use	% Change	33%	50%	49%	17%	13%	20%	8%	27%	29%	19%	-8%	17%	19%
No Act	% Change	44%	58%	64%	30%	26%	38%	11%	28%	32%	24%	-8%	7%	23%
Alt 1a	% Change	34%	9%	10%	-13%	-15%	-23%	2%	47%	52%	32%	0%	7%	18%
Alt 1c	% Change	34%	9%	10%	-13%	-15%	-23%	2%	47%	52%	32%	0%	6%	18%
Alt 8a	% Change	35%	10%	10%	-12%	-15%	-23%	2%	47%	52%	32%	-1%	7%	18%
Alt 10a	% Change	34%	10%	10%	-13%	-15%	-23%	2%	47%	52%	32%	-1%	7%	18%
Alt 13a	% Change	33%	9%	10%	-13%	-15%	-23%	2%	48%	52%	32%	0%	7%	18%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Conditions		37.9	42.0	51.3	49.0	55.4	38.6	17.3	2.1	1.3	24.8	122.2	145.0	48.9
Full Use	Flow	84.3	66.0	78.7	53.8	60.4	50.5	22.6	8.2	15.4	65.5	204.5	263.8	81.1
No Act	Flow	104.1	76.5	95.9	66.4	72.1	59.1	28.2	10.1	18.7	82.8	228.0	288.3	94.2
Alt 1a	Flow	87.1	41.3	44.6	30.6	39.1	31.5	15.0	56.3	22.0	104.1	242.6	287.5	83.5
Alt 1c	Flow	87.7	41.5	44.7	30.5	39.2	31.5	15.2	56.8	21.6	106.2	248.4	290.8	84.5
Alt 8a	Flow	84.4	41.6	44.7	30.7	39.5	31.4	14.9	51.8	21.0	105.8	243.8	287.2	83.0
Alt 10a	Flow	84.1	41.7	44.6	30.6	39.5	31.4	14.9	54.3	21.1	106.1	243.2	287.5	83.2
Alt 13a	Flow	85.0	41.0	45.0	30.8	39.2	31.1	14.9	53.3	22.2	107.8	242.6	288.5	83.4
Flow change from Current Conditions														
Full Use	Div. Change	46.4	24.0	27.5	4.8	5.0	11.9	5.3	6.1	14.2	40.8	82.3	118.8	32.2
No Act	Div. Change	66.2	34.5	44.6	17.5	16.6	20.5	10.9	8.1	17.4	58.0	105.8	143.3	45.3
Alt 1a	Div. Change	49.2	-0.7	-6.7	-18.3	-16.3	-7.1	-2.3	54.3	20.7	79.4	120.4	142.5	34.6
Alt 1c	Div. Change	49.8	-0.5	-6.5	-18.5	-16.3	-7.1	-2.1	54.7	20.3	81.4	126.2	145.8	35.6
Alt 8a	Div. Change	46.5	-0.4	-6.6	-18.3	-15.9	-7.2	-2.4	49.7	19.7	81.0	121.6	142.2	34.2
Alt 10a	Div. Change	46.2	-0.3	-6.7	-18.4	-15.9	-7.1	-2.4	52.2	19.8	81.3	121.0	142.5	34.4
Alt 13a	Div. Change	47.1	-1.0	-6.3	-18.2	-16.2	-7.5	-2.4	51.2	21.0	83.1	120.4	143.5	34.5
Percent change in flow from Current Conditions														
Full Use	% Change	122%	57%	54%	10%	9%	31%	31%	297%	1117%	165%	67%	82%	66%
No Act	% Change	175%	82%	87%	36%	30%	53%	63%	391%	1372%	234%	87%	99%	93%
Alt 1a	% Change	130%	-2%	-13%	-37%	-29%	-18%	-13%	2627%	1636%	321%	99%	98%	71%
Alt 1c	% Change	132%	-1%	-13%	-38%	-29%	-18%	-12%	2648%	1601%	329%	103%	101%	73%
Alt 8a	% Change	123%	-1%	-13%	-37%	-29%	-19%	-14%	2406%	1556%	327%	99%	98%	70%
Alt 10a	% Change	122%	-1%	-13%	-38%	-29%	-19%	-14%	2527%	1564%	328%	99%	98%	70%
Alt 13a	% Change	124%	-2%	-12%	-37%	-29%	-19%	-14%	2478%	1654%	336%	99%	99%	71%

Table H-1.63. Dillon Reservoir Outflow (cfs)

Flow Change and % Change are based on comparisons to Current Conditions														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		79.0	63.2	57.3	53.0	52.6	51.5	81.0	319.7	768.5	296.9	153.3	84.2	171.7
Full Use	Flow	63.8	56.9	54.0	51.4	50.7	50.3	69.2	197.3	561.0	251.6	123.4	71.9	133.5
No Act	Flow	61.1	56.1	53.4	51.1	50.8	50.2	65.8	173.1	474.4	228.4	99.1	69.5	119.4
Alt 1a	Flow	61.7	56.7	54.7	52.6	52.2	51.2	71.8	195.1	515.5	226.8	114.1	70.1	126.9
Alt 1c	Flow	61.6	56.6	54.4	52.5	52.2	51.2	71.8	193.8	513.0	225.6	113.6	69.7	126.3
Alt 8a	Flow	61.9	56.7	54.8	52.6	52.2	51.2	71.8	195.2	521.3	228.1	114.5	70.3	127.5
Alt 10a	Flow	61.9	56.7	54.8	52.6	52.2	51.2	71.8	195.2	521.1	227.8	114.4	70.4	127.5
Alt 13a	Flow	61.9	56.7	54.8	52.6	52.2	51.2	71.8	195.2	519.4	226.8	114.7	70.3	127.3
Flow change from Current Conditions														
Full Use	Flow Change	-15.2	-6.3	-3.3	-1.6	-1.9	-1.2	-11.8	-122.4	-207.5	-45.3	-29.9	-12.2	-38.2
No Act	Flow Change	-17.9	-7.1	-3.9	-1.9	-1.8	-1.4	-15.2	-146.6	-294.1	-68.5	-54.2	-14.7	-52.3
Alt 1a	Flow Change	-17.3	-6.5	-2.6	-0.4	-0.4	-0.4	-9.2	-124.7	-253.0	-70.1	-39.2	-14.0	-44.8
Alt 1c	Flow Change	-17.4	-6.6	-2.9	-0.5	-0.4	-0.4	-9.2	-126.0	-255.5	-71.4	-39.7	-14.5	-45.4
Alt 8a	Flow Change	-17.1	-6.5	-2.5	-0.4	-0.4	-0.4	-9.2	-124.5	-247.2	-68.9	-38.8	-13.8	-44.1
Alt 10a	Flow Change	-17.1	-6.5	-2.5	-0.4	-0.4	-0.4	-9.2	-124.6	-247.4	-69.1	-39.0	-13.8	-44.2
Alt 13a	Flow Change	-17.1	-6.5	-2.5	-0.4	-0.4	-0.4	-9.2	-124.6	-249.1	-70.1	-38.6	-13.9	-44.4
Percent change in flow from Current Conditions														
Full Use	% Change	-19%	-10%	-6%	-3%	-4%	-2%	-15%	-38%	-27%	-15%	-20%	-15%	-22%
No Act	% Change	-23%	-11%	-7%	-4%	-3%	-3%	-19%	-46%	-38%	-23%	-35%	-17%	-30%
Alt 1a	% Change	-22%	-10%	-4%	-1%	-1%	-1%	-11%	-39%	-33%	-24%	-26%	-17%	-26%
Alt 1c	% Change	-22%	-10%	-5%	-1%	-1%	-1%	-11%	-39%	-33%	-24%	-26%	-17%	-26%
Alt 8a	% Change	-22%	-10%	-4%	-1%	-1%	-1%	-11%	-39%	-32%	-23%	-25%	-16%	-26%
Alt 10a	% Change	-22%	-10%	-4%	-1%	-1%	-1%	-11%	-39%	-32%	-23%	-25%	-16%	-26%
Alt 13a	% Change	-22%	-10%	-4%	-1%	-1%	-1%	-11%	-39%	-32%	-24%	-25%	-17%	-26%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Conditions		50.1	50.2	51.8	49.6	49.5	49.0	49.9	50.5	61.0	144.4	146.2	75.6	69.0
Full Use	Flow	50.1	50.1	49.8	49.8	49.8	49.4	49.9	50.5	50.0	71.9	83.6	75.4	56.7
No Act	Flow	50.1	50.1	49.8	49.8	49.8	49.4	49.9	50.5	50.0	71.9	82.8	75.4	56.6
Alt 1a	Flow	50.1	50.1	49.8	49.8	49.8	49.4	49.9	50.5	50.0	73.5	83.2	75.4	56.8
Alt 1c	Flow	50.1	50.1	49.8	49.8	49.8	49.4	49.9	50.5	50.0	72.7	83.2	75.4	56.7
Alt 8a	Flow	50.1	50.1	49.8	49.8	49.8	49.4	49.9	50.5	50.0	73.5	83.2	75.4	56.8
Alt 10a	Flow	50.1	50.1	49.8	49.8	49.8	49.4	49.9	50.5	50.0	73.5	83.2	75.4	56.8
Alt 13a	Flow	50.1	50.1	49.8	49.8	49.8	49.4	49.9	50.5	50.0	73.5	83.2	75.4	56.8
Flow change from Current Conditions														
Full Use	Flow Change	0.0	-0.1	-2.0	0.1	0.3	0.4	0.0	0.0	-11.0	-72.5	-62.6	-0.2	-12.3
No Act	Flow Change	0.0	-0.1	-2.0	0.1	0.3	0.4	0.0	0.0	-11.0	-72.5	-63.4	-0.2	-12.4
Alt 1a	Flow Change	0.0	-0.1	-2.0	0.1	0.3	0.4	0.0	0.0	-11.0	-70.9	-63.0	-0.2	-12.2
Alt 1c	Flow Change	0.0	-0.1	-2.0	0.1	0.3	0.4	0.0	0.0	-11.0	-71.7	-63.0	-0.2	-12.3
Alt 8a	Flow Change	0.0	-0.1	-2.0	0.1	0.3	0.4	0.0	0.0	-11.0	-70.9	-63.0	-0.2	-12.2
Alt 10a	Flow Change	0.0	-0.1	-2.0	0.1	0.3	0.4	0.0	0.0	-11.0	-70.9	-63.0	-0.2	-12.2
Alt 13a	Flow Change	0.0	-0.1	-2.0	0.1	0.3	0.4	0.0	0.0	-11.0	-70.9	-63.0	-0.2	-12.2
Percent change in flow from Current Conditions														
Full Use	% Change	0%	0%	-4%	0%	1%	1%	0%	0%	-18%	-50%	-43%	0%	-18%
No Act	% Change	0%	0%	-4%	0%	1%	1%	0%	0%	-18%	-50%	-43%	0%	-18%
Alt 1a	% Change	0%	0%	-4%	0%	1%	1%	0%	0%	-18%	-49%	-43%	0%	-18%
Alt 1c	% Change	0%	0%	-4%	0%	1%	1%	0%	0%	-18%	-50%	-43%	0%	-18%
Alt 8a	% Change	0%	0%	-4%	0%	1%	1%	0%	0%	-18%	-49%	-43%	0%	-18%
Alt 10a	% Change	0%	0%	-4%	0%	1%	1%	0%	0%	-18%	-49%	-43%	0%	-18%
Alt 13a	% Change	0%	0%	-4%	0%	1%	1%	0%	0%	-18%	-49%	-43%	0%	-18%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Conditions		129.8	84.0	67.5	56.9	58.5	58.1	168.1	943.7	1,224.5	667.8	310.8	143.0	326.1
Full Use	Flow	68.3	57.5	52.9	49.9	50.2	51.7	132.6	590.3	1,429.0	628.4	290.4	135.6	294.7
No Act	Flow	50.1	50.0	50.0	49.9	50.2	50.1	112.0	508.5	1,320.6	612.2	285.3	134.5	272.8
Alt 1a	Flow	50.0	53.6	57.4	55.8	53.3	52.8	136.3	545.7	1,407.0	582.5	280.7	132.4	284.0
Alt 1c	Flow	50.0	53.5	55.3	54.9	53.3	52.8	136.2	543.1	1,401.2	580.7	280.1	132.2	282.8
Alt 8a	Flow	50.0	53.9	58.3	55.8	53.3	52.8	136.4	546.5	1,431.2	590.2	280.7	132.3	286.8
Alt 10a	Flow	50.0	53.8	58.4	55.7	53.3	52.8	136.4	546.8	1,431.8	588.0	280.7	132.3	286.7
Alt 13a	Flow	50.0	53.9	58.3	55.8	53.3	52.8	136.4	546.0	1,420.2	586.8	280.3	132.3	285.5
Flow change from Current Conditions														
Full Use	Flow Change	-61.5	-26.5	-14.6	-7.0	-8.3	-6.4	-35.5	-353.4	204.4	-39.4	-20.3	-7.5	-31.3
No Act	Flow Change	-79.7	-34.0	-17.5	-7.0	-8.3	-8.1	-56.1	-435.2	96.0	-55.6	-25.5	-8.6	-53.3
Alt 1a	Flow Change	-79.8	-30.5	-10.1	-1.2	-5.2	-5.4	-31.7	-397.9	182.5	-85.3	-30.1	-10.6	-42.1
Alt 1c	Flow Change	-79.8	-30.6	-12.2	-2.0	-5.2	-5.4	-31.9	-400.5	176.6	-87.1	-30.7	-10.8	-43.3
Alt 8a	Flow Change	-79.8	-30.1	-9.2	-1.2	-5.2	-5.4	-31.7	-397.2	206.7	-77.6	-30.1	-10.7	-39.3
Alt 10a	Flow Change	-79.8	-30.2	-9.1	-1.2	-5.2	-5.4	-31.7	-396.9	207.2	-79.8	-30.1	-10.7	-39.4
Alt 13a	Flow Change	-79.8	-30.1	-9.2	-1.2	-5.2	-5.4	-31.7	-397.7	195.7	-81.0	-30.5	-10.7	-40.6
Percent change in flow from Current Conditions														
Full Use	% Change	-47%	-32%	-22%	-12%	-14%	-11%	-21%	-37%	17%	-6%	-7%	-5%	-10%
No Act	% Change	-61%	-40%	-26%	-12%	-14%	-14%	-33%	-46%	8%	-8%	-8%	-6%	-16%
Alt 1a	% Change	-61%	-36%	-15%	-2%	-9%	-9%	-19%	-42%	15%	-13%	-10%	-7%	-13%
Alt 1c	% Change	-61%	-36%	-18%	-4%	-9%	-9%	-19%	-42%	14%	-13%	-10%	-8%	-13%
Alt 8a	% Change	-61%	-36%	-14%	-2%	-9%	-9%	-19%	-42%	17%	-12%	-10%	-8%	-12%
Alt 10a	% Change	-61%	-36%	-14%	-2%	-9%	-9%	-19%	-42%	17%	-12%	-10%	-7%	-12%
Alt 13a	% Change	-61%	-36%	-14%	-2%	-9%	-9%	-19%	-42%	16%	-12%	-10%	-7%	-12%

Table H-1.64. Green Mountain Reservoir Outflow (cfs)

Flow Change and % Change are based on comparisons to Current Conditions														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		387.6	246.8	238.6	213.5	181.4	322.5	121.9	102.8	903.9	798.5	629.4	552.7	391.6
Full Use	Flow	376.7	237.6	228.2	202.6	170.6	317.9	119.0	90.7	659.0	714.5	581.5	534.9	352.8
No Act	Flow	373.6	237.4	226.8	201.3	170.0	315.9	120.8	85.5	587.5	666.7	554.9	523.9	338.7
Alt 1a	Flow	374.6	238.2	227.6	202.2	171.0	316.0	120.0	95.1	633.2	676.6	571.7	527.9	346.2
Alt 1c	Flow	374.7	238.1	227.2	202.1	171.0	315.9	120.0	95.0	630.5	674.8	571.1	527.3	345.6
Alt 8a	Flow	374.4	238.3	228.0	202.4	171.1	316.9	119.3	95.3	636.6	680.4	571.0	528.4	346.8
Alt 10a	Flow	374.2	238.2	228.0	202.5	171.1	316.8	119.3	95.3	636.4	680.0	571.0	528.4	346.8
Alt 13a	Flow	374.3	238.4	227.9	202.4	171.0	316.6	119.6	95.1	634.3	679.2	571.8	528.3	346.6
Flow change from Current Conditions														
Full Use	Flow Change	-10.9	-9.2	-10.4	-11.0	-10.8	-4.6	-3.0	-12.1	-244.9	-84.0	-47.9	-17.9	-38.9
No Act	Flow Change	-14.0	-9.4	-11.8	-12.2	-11.5	-6.6	-1.1	-17.2	-316.3	-131.7	-74.5	-28.9	-52.9
Alt 1a	Flow Change	-13.0	-8.6	-11.0	-11.3	-10.4	-6.6	-1.9	-7.7	-270.7	-121.8	-57.8	-24.9	-45.5
Alt 1c	Flow Change	-12.9	-8.7	-11.4	-11.4	-10.4	-6.7	-1.9	-7.8	-273.4	-123.7	-58.3	-25.5	-46.0
Alt 8a	Flow Change	-13.2	-8.6	-10.6	-11.1	-10.4	-5.6	-2.7	-7.5	-267.2	-118.1	-58.5	-24.4	-44.8
Alt 10a	Flow Change	-13.4	-8.6	-10.6	-11.1	-10.4	-5.7	-2.7	-7.5	-267.5	-118.4	-58.5	-24.3	-44.9
Alt 13a	Flow Change	-13.3	-8.4	-10.7	-11.2	-10.4	-5.9	-2.3	-7.6	-269.5	-119.3	-57.7	-24.5	-45.1
Percent change in flow from Current Conditions														
Full Use	% Change	-3%	-4%	-4%	-5%	-6%	-1%	-2%	-12%	-27%	-11%	-8%	-3%	-10%
No Act	% Change	-4%	-4%	-5%	-6%	-6%	-2%	-1%	-17%	-35%	-16%	-12%	-5%	-14%
Alt 1a	% Change	-3%	-3%	-5%	-5%	-6%	-2%	-2%	-8%	-30%	-15%	-9%	-4%	-12%
Alt 1c	% Change	-3%	-4%	-5%	-5%	-6%	-2%	-2%	-8%	-30%	-15%	-9%	-5%	-12%
Alt 8a	% Change	-3%	-3%	-4%	-5%	-6%	-2%	-2%	-7%	-30%	-15%	-9%	-4%	-11%
Alt 10a	% Change	-3%	-3%	-4%	-5%	-6%	-2%	-2%	-7%	-30%	-15%	-9%	-4%	-11%
Alt 13a	% Change	-3%	-3%	-4%	-5%	-6%	-2%	-2%	-7%	-30%	-15%	-9%	-4%	-12%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Current Conditions		399.6	204.0	185.5	162.1	131.3	222.3	161.4	74.6	163.7	543.7	565.8	328.1	261.8
Full Use	Flow	398.7	200.1	179.7	158.0	129.2	219.0	163.2	75.0	150.4	483.2	513.1	316.0	248.8
No Act	Flow	399.2	199.8	179.4	157.8	129.1	218.7	163.2	75.0	150.4	483.2	512.0	315.2	248.6
Alt 1a	Flow	400.1	199.4	179.0	157.5	129.1	218.2	163.2	75.0	150.4	484.6	512.6	315.2	248.7
Alt 1c	Flow	399.9	199.2	178.8	157.3	129.1	218.0	163.2	75.0	150.4	483.8	512.6	315.2	248.5
Alt 8a	Flow	400.1	199.9	179.5	157.9	129.1	218.7	163.2	75.0	150.4	484.6	512.6	315.2	248.8
Alt 10a	Flow	400.1	199.9	179.5	157.9	129.1	218.8	163.2	75.0	150.4	484.6	512.6	315.2	248.9
Alt 13a	Flow	400.1	199.6	179.1	157.6	129.1	218.4	163.2	75.0	150.4	484.6	512.6	315.2	248.7
Flow change from Current Conditions														
Full Use	Flow Change	-0.9	-3.8	-5.8	-4.0	-2.1	-3.3	1.8	0.4	-13.3	-60.5	-52.8	-12.1	-13.0
No Act	Flow Change	-0.4	-4.1	-6.1	-4.3	-2.1	-3.7	1.8	0.4	-13.3	-60.5	-53.8	-13.0	-13.3
Alt 1a	Flow Change	0.4	-4.5	-6.5	-4.6	-2.1	-4.1	1.8	0.4	-13.3	-59.1	-53.2	-13.0	-13.1
Alt 1c	Flow Change	0.3	-4.8	-6.7	-4.8	-2.1	-4.3	1.8	0.4	-13.3	-59.9	-53.3	-13.0	-13.3
Alt 8a	Flow Change	0.5	-4.1	-6.0	-4.2	-2.1	-3.6	1.8	0.4	-13.3	-59.1	-53.2	-13.0	-13.0
Alt 10a	Flow Change	0.5	-4.0	-6.0	-4.2	-2.1	-3.6	1.8	0.4	-13.3	-59.1	-53.2	-13.0	-13.0
Alt 13a	Flow Change	0.5	-4.4	-6.3	-4.5	-2.1	-3.9	1.8	0.4	-13.3	-59.1	-53.2	-13.0	-13.1
Percent change in flow from Current Conditions														
Full Use	% Change	0%	-2%	-3%	-2%	-2%	-2%	1%	1%	-8%	-11%	-9%	-4%	-5%
No Act	% Change	0%	-2%	-3%	-3%	-2%	-2%	1%	1%	-8%	-11%	-10%	-4%	-5%
Alt 1a	% Change	0%	-2%	-3%	-3%	-2%	-2%	1%	1%	-8%	-11%	-9%	-4%	-5%
Alt 1c	% Change	0%	-2%	-4%	-3%	-2%	-2%	1%	1%	-8%	-11%	-9%	-4%	-5%
Alt 8a	% Change	0%	-2%	-3%	-3%	-2%	-2%	1%	1%	-8%	-11%	-9%	-4%	-5%
Alt 10a	% Change	0%	-2%	-3%	-3%	-2%	-2%	1%	1%	-8%	-11%	-9%	-4%	-5%
Alt 13a	% Change	0%	-2%	-3%	-3%	-2%	-2%	1%	1%	-8%	-11%	-9%	-4%	-5%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Current Conditions		347.3	352.6	362.1	319.4	265.7	592.1	91.2	291.3	2,225.9	1,487.5	751.3	509.6	633.0
Full Use	Flow	321.2	311.3	313.7	268.6	208.5	577.4	89.1	242.2	2,080.6	1,446.7	731.3	503.3	591.2
No Act	Flow	311.3	306.2	309.1	264.6	205.8	573.3	89.1	222.7	1,887.5	1,430.4	726.1	502.7	569.1
Alt 1a	Flow	311.2	310.8	316.0	269.9	208.5	575.4	89.1	247.8	2,010.8	1,401.3	721.0	503.1	580.4
Alt 1c	Flow	311.2	310.6	313.8	268.9	208.4	575.4	89.1	247.6	2,002.2	1,399.6	720.4	503.4	579.2
Alt 8a	Flow	311.2	311.0	316.9	269.8	208.5	575.4	89.1	247.8	2,035.7	1,409.0	721.0	503.4	583.2
Alt 10a	Flow	311.2	310.9	316.9	269.8	208.4	575.4	89.1	247.8	2,036.5	1,406.8	721.0	503.4	583.1
Alt 13a	Flow	311.2	311.0	316.8	269.8	208.4	575.4	89.1	247.8	2,024.2	1,405.6	720.6	503.4	581.9
Flow change from Current Conditions														
Full Use	Flow Change	-26.1	-41.3	-48.4	-50.8	-57.2	-14.6	-2.1	-49.1	-145.3	-40.8	-20.0	-6.3	-41.8
No Act	Flow Change	-36.1	-46.4	-53.0	-54.8	-59.9	-18.8	-2.1	-68.7	-338.4	-57.1	-25.2	-6.9	-63.9
Alt 1a	Flow Change	-36.2	-41.8	-46.1	-49.5	-57.3	-16.6	-2.1	-43.6	-215.2	-86.2	-30.2	-6.5	-52.6
Alt 1c	Flow Change	-36.2	-42.0	-48.4	-50.5	-57.3	-16.7	-2.1	-43.7	-223.7	-87.9	-30.9	-6.2	-53.8
Alt 8a	Flow Change	-36.1	-41.6	-45.2	-49.6	-57.3	-16.7	-2.1	-43.5	-190.3	-78.5	-30.3	-6.2	-49.8
Alt 10a	Flow Change	-36.1	-41.7	-45.2	-49.6	-57.3	-16.7	-2.1	-43.5	-189.4	-80.7	-30.2	-6.2	-49.9
Alt 13a	Flow Change	-36.2	-41.6	-45.3	-49.6	-57.3	-16.7	-2.1	-43.5	-201.8	-81.9	-30.7	-6.2	-51.1
Percent change in flow from Current Conditions														
Full Use	% Change	-8%	-12%	-13%	-16%	-22%	-2%	-2%	-17%	-7%	-3%	-3%	-1%	-7%
No Act	% Change	-10%	-13%	-15%	-17%	-23%	-3%	-2%	-24%	-15%	-4%	-3%	-1%	-10%
Alt 1a	% Change	-10%	-12%	-13%	-16%	-22%	-3%	-2%	-15%	-10%	-6%	-4%	-1%	-8%
Alt 1c	% Change	-10%	-12%	-13%	-16%	-22%	-3%	-2%	-15%	-10%	-6%	-4%	-1%	-8%
Alt 8a	% Change	-10%	-12%	-12%	-16%	-22%	-3%	-2%	-15%	-9%	-5%	-4%	-1%	-8%
Alt 10a	% Change	-10%	-12%	-12%	-16%	-22%	-3%	-2%	-15%	-9%	-5%	-4%	-1%	-8%
Alt 13a	% Change	-10%	-12%	-13%	-16%	-22%	-3%	-2%	-15%	-9%	-6%	-4%	-1%	-8%

Table H-1.65. South Boulder Creek at Pinecliffe Gage (cfs)

Flow Change and % Change are based on comparisons to Current Conditions														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		58.4	37.3	27.9	23.1	21.3	24.8	64.6	358.6	605.8	290.2	147.2	93.1	146.0
Full Use	Flow	58.8	35.6	26.4	23.2	21.3	24.8	64.6	363.4	619.8	313.9	151.0	94.1	149.7
No Act	Flow	59.1	35.6	26.4	22.9	21.3	24.8	64.6	370.9	642.5	319.6	152.9	94.5	152.9
Alt 1a	Flow	58.9	36.1	26.8	23.9	22.0	25.1	64.6	389.3	725.8	344.2	156.6	94.4	164.0
Alt 1c	Flow	58.9	36.1	26.8	23.9	22.0	25.1	64.6	389.2	723.3	344.0	156.7	94.4	163.7
Alt 8a	Flow	59.7	36.1	26.8	23.9	22.0	25.1	64.6	389.2	720.1	335.2	152.0	94.5	162.4
Alt 10a	Flow	59.6	36.1	26.8	23.9	22.0	25.1	64.6	389.2	720.1	335.0	152.0	94.5	162.4
Alt 13a	Flow	59.3	36.1	26.8	23.9	22.0	25.1	64.6	389.2	724.0	339.8	154.8	94.3	163.3
Flow change from Current Conditions														
Full Use	Flow Change	0.4	-1.7	-1.4	0.1	0.0	0.0	0.0	4.8	14.0	23.6	3.8	0.9	3.7
No Act	Flow Change	0.7	-1.7	-1.5	-0.2	0.0	0.0	0.0	12.3	36.6	29.4	5.7	1.3	6.9
Alt 1a	Flow Change	0.5	-1.2	-1.0	0.7	0.7	0.3	0.0	30.7	119.9	54.0	9.4	1.3	17.9
Alt 1c	Flow Change	0.5	-1.2	-1.0	0.7	0.7	0.3	0.0	30.6	117.4	53.8	9.4	1.3	17.7
Alt 8a	Flow Change	1.3	-1.2	-1.0	0.7	0.7	0.3	0.0	30.7	114.3	45.0	4.8	1.3	16.4
Alt 10a	Flow Change	1.3	-1.2	-1.0	0.7	0.7	0.3	0.0	30.7	114.3	44.8	4.8	1.3	16.4
Alt 13a	Flow Change	0.9	-1.2	-1.0	0.7	0.7	0.3	0.0	30.7	118.1	49.6	7.6	1.2	17.3
Percent change in flow from Current Conditions														
Full Use	% Change	1%	-5%	-5%	0%	0%	0%	0%	1%	2%	8%	3%	1%	3%
No Act	% Change	1%	-4%	-5%	-1%	0%	0%	0%	3%	6%	10%	4%	1%	5%
Alt 1a	% Change	1%	-3%	-4%	3%	3%	1%	0%	9%	20%	19%	6%	1%	12%
Alt 1c	% Change	1%	-3%	-4%	3%	3%	1%	0%	9%	19%	19%	6%	1%	12%
Alt 8a	% Change	2%	-3%	-4%	3%	3%	1%	0%	9%	19%	15%	3%	1%	11%
Alt 10a	% Change	2%	-3%	-4%	3%	3%	1%	0%	9%	19%	15%	3%	1%	11%
Alt 13a	% Change	2%	-3%	-4%	3%	3%	1%	0%	9%	20%	17%	5%	1%	12%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Current Conditions		48.5	31.4	21.8	16.8	16.6	18.1	51.7	261.3	502.0	140.4	97.8	69.8	106.4
Full Use	Flow	47.8	29.0	19.9	16.5	16.5	18.1	51.7	263.3	509.2	156.3	100.4	70.6	108.3
No Act	Flow	47.8	29.0	19.9	16.5	16.5	18.1	51.7	263.3	510.3	156.4	100.4	70.6	108.4
Alt 1a	Flow	47.8	29.0	19.9	16.5	16.5	18.1	51.7	263.3	510.3	156.4	100.4	70.6	108.4
Alt 1c	Flow	47.8	29.0	19.9	16.5	16.5	18.1	51.7	263.3	510.3	156.4	100.4	70.6	108.4
Alt 8a	Flow	47.8	29.0	19.9	16.5	16.5	18.1	51.7	263.3	510.3	156.4	100.4	70.6	108.4
Alt 10a	Flow	47.8	29.0	19.9	16.5	16.5	18.1	51.7	263.3	510.3	156.4	100.4	70.6	108.4
Alt 13a	Flow	47.8	29.0	19.9	16.5	16.5	18.1	51.7	263.3	510.3	156.4	100.4	70.6	108.4
Flow change from Current Conditions														
Full Use	Flow Change	-0.8	-2.4	-1.9	-0.3	-0.1	0.0	0.0	2.0	7.2	16.0	2.6	0.8	1.9
No Act	Flow Change	-0.8	-2.4	-1.9	-0.3	-0.1	0.0	0.0	2.0	8.2	16.0	2.6	0.8	2.0
Alt 1a	Flow Change	-0.8	-2.4	-1.9	-0.3	-0.1	0.0	0.0	2.0	8.2	16.0	2.6	0.8	2.0
Alt 1c	Flow Change	-0.8	-2.4	-1.9	-0.3	-0.1	0.0	0.0	2.0	8.2	16.0	2.6	0.8	2.0
Alt 8a	Flow Change	-0.8	-2.4	-1.9	-0.3	-0.1	0.0	0.0	2.0	8.2	16.0	2.6	0.8	2.0
Alt 10a	Flow Change	-0.8	-2.4	-1.9	-0.3	-0.1	0.0	0.0	2.0	8.2	16.0	2.6	0.8	2.0
Alt 13a	Flow Change	-0.8	-2.4	-1.9	-0.3	-0.1	0.0	0.0	2.0	8.2	16.0	2.6	0.8	2.0
Percent change in flow from Current Conditions														
Full Use	% Change	-2%	-8%	-9%	-2%	0%	0%	0%	1%	1%	11%	3%	1%	2%
No Act	% Change	-2%	-8%	-9%	-2%	0%	0%	0%	1%	2%	11%	3%	1%	2%
Alt 1a	% Change	-2%	-8%	-9%	-2%	0%	0%	0%	1%	2%	11%	3%	1%	2%
Alt 1c	% Change	-2%	-8%	-9%	-2%	0%	0%	0%	1%	2%	11%	3%	1%	2%
Alt 8a	% Change	-2%	-8%	-9%	-2%	0%	0%	0%	1%	2%	11%	3%	1%	2%
Alt 10a	% Change	-2%	-8%	-9%	-2%	0%	0%	0%	1%	2%	11%	3%	1%	2%
Alt 13a	% Change	-2%	-8%	-9%	-2%	0%	0%	0%	1%	2%	11%	3%	1%	2%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Current Conditions		71.0	45.5	35.7	29.9	26.1	27.6	63.0	387.9	452.0	328.6	174.3	117.1	146.6
Full Use	Flow	70.3	43.2	33.6	29.6	26.0	27.7	62.9	387.5	474.4	355.9	183.6	122.7	151.5
No Act	Flow	69.7	43.0	33.6	29.6	26.0	27.7	62.9	402.0	515.1	365.7	196.2	125.5	158.1
Alt 1a	Flow	69.8	43.0	33.6	29.6	26.0	27.7	62.9	446.2	627.3	373.5	190.9	125.7	171.4
Alt 1c	Flow	70.3	43.0	33.6	29.6	26.0	27.7	62.9	445.9	624.0	373.4	188.8	125.8	170.9
Alt 8a	Flow	69.8	43.0	33.6	29.6	26.0	27.7	62.9	446.0	623.7	372.8	190.8	125.7	171.0
Alt 10a	Flow	69.8	43.0	33.6	29.6	26.0	27.7	62.9	446.1	624.1	372.8	190.8	125.7	171.0
Alt 13a	Flow	69.8	43.0	33.6	29.6	26.0	27.7	62.9	446.1	626.9	373.0	190.9	125.7	171.3
Flow change from Current Conditions														
Full Use	Flow Change	-0.7	-2.3	-2.1	-0.3	-0.1	0.0	0.0	-0.4	22.4	27.3	9.3	5.6	4.9
No Act	Flow Change	-1.3	-2.5	-2.1	-0.3	-0.1	0.0	0.0	14.1	63.1	37.1	21.9	8.4	11.5
Alt 1a	Flow Change	-1.2	-2.5	-2.1	-0.3	-0.1	0.0	0.0	58.3	175.3	44.9	16.6	8.6	24.8
Alt 1c	Flow Change	-0.7	-2.5	-2.1	-0.3	-0.1	0.0	0.0	58.0	172.0	44.8	14.4	8.7	24.4
Alt 8a	Flow Change	-1.2	-2.5	-2.1	-0.3	-0.1	0.0	0.0	58.1	171.7	44.1	16.4	8.6	24.4
Alt 10a	Flow Change	-1.2	-2.5	-2.1	-0.3	-0.1	0.0	0.0	58.2	172.2	44.2	16.5	8.6	24.4
Alt 13a	Flow Change	-1.2	-2.5	-2.1	-0.3	-0.1	0.0	0.0	58.2	174.9	44.4	16.6	8.6	24.7
Percent change in flow from Current Conditions														
Full Use	% Change	-1%	-5%	-6%	-1%	0%	0%	0%	0%	5%	8%	5%	5%	3%
No Act	% Change	-2%	-6%	-6%	-1%	0%	0%	0%	4%	14%	11%	13%	7%	8%
Alt 1a	% Change	-2%	-6%	-6%	-1%	0%	0%	0%	15%	39%	14%	9%	7%	17%
Alt 1c	% Change	-1%	-5%	-6%	-1%	0%	0%	0%	15%	38%	14%	8%	7%	17%
Alt 8a	% Change	-2%	-6%	-6%	-1%	0%	0%	0%	15%	38%	13%	9%	7%	17%
Alt 10a	% Change	-2%	-6%	-6%	-1%	0%	0%	0%	15%	38%	13%	9%	7%	17%
Alt 13a	% Change	-2%	-6%	-6%	-1%	0%	0%	0%	15%	39%	13%	10%	7%	17%

Table H-1.66. Gross Reservoir Outflow (cfs)

Flow Change and % Change are based on comparisons to Current Conditions														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		85.2	34.7	22.9	10.2	10.2	83.9	89.1	274.3	434.0	373.9	250.8	167.9	153.1
Full Use	Flow	88.4	44.5	28.3	10.2	10.2	121.8	96.5	285.1	458.9	391.6	215.6	128.8	156.6
No Act	Flow	90.8	46.6	29.3	10.2	10.2	128.4	96.6	289.1	471.2	397.5	217.7	130.1	159.8
Alt 1a	Flow	118.9	97.1	98.8	98.2	95.8	96.0	132.4	220.8	398.2	349.1	209.4	131.9	170.5
Alt 1c	Flow	119.1	97.3	97.3	94.2	91.8	91.1	121.7	229.1	413.4	351.3	208.4	132.6	170.6
Alt 8a	Flow	117.4	94.9	96.9	95.6	92.9	92.5	129.6	220.8	397.7	349.9	210.1	131.9	169.2
Alt 10a	Flow	117.4	94.8	96.7	95.6	92.8	92.7	129.7	220.9	397.7	350.1	210.1	131.5	169.2
Alt 13a	Flow	117.4	95.7	98.0	98.1	95.6	95.2	131.1	221.8	397.4	349.0	209.4	131.3	170.0
Flow change from Current Conditions														
Full Use	Flow Change	3.3	9.8	5.3	0.0	0.0	38.0	7.4	10.8	24.9	17.7	-35.2	-39.1	3.6
No Act	Flow Change	5.7	11.9	6.3	0.0	0.0	44.6	7.5	14.8	37.1	23.6	-33.1	-37.8	6.7
Alt 1a	Flow Change	33.7	62.4	75.9	88.0	85.5	12.1	43.3	-53.5	-35.8	-24.8	-41.4	-35.9	17.5
Alt 1c	Flow Change	34.0	62.6	74.4	84.0	81.6	7.3	32.6	-45.2	-20.6	-22.6	-42.5	-35.3	17.5
Alt 8a	Flow Change	32.2	60.2	73.9	85.5	82.6	8.7	40.5	-53.5	-36.3	-24.0	-40.7	-36.0	16.1
Alt 10a	Flow Change	32.2	60.1	73.8	85.4	82.6	8.8	40.6	-53.4	-36.3	-23.8	-40.8	-36.3	16.1
Alt 13a	Flow Change	32.2	61.0	75.1	87.9	85.4	11.4	42.0	-52.5	-36.7	-24.9	-41.5	-36.5	16.9
Percent change in flow from Current Conditions														
Full Use	% Change	4%	28%	23%	0%	0%	45%	8%	4%	6%	5%	-14%	-23%	2%
No Act	% Change	7%	34%	28%	0%	0%	53%	8%	5%	9%	6%	-13%	-23%	4%
Alt 1a	% Change	40%	180%	331%	865%	835%	14%	49%	-20%	-8%	-7%	-17%	-21%	11%
Alt 1c	% Change	40%	180%	324%	825%	797%	9%	37%	-16%	-5%	-6%	-17%	-21%	11%
Alt 8a	% Change	38%	173%	323%	839%	807%	10%	45%	-20%	-8%	-6%	-16%	-21%	11%
Alt 10a	% Change	38%	173%	322%	839%	806%	10%	46%	-19%	-8%	-6%	-16%	-22%	11%
Alt 13a	% Change	38%	176%	328%	863%	833%	14%	47%	-19%	-8%	-7%	-17%	-22%	11%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Current Conditions		78.3	31.3	20.2	7.9	7.5	82.4	48.3	226.4	339.9	243.3	178.5	113.6	114.8
Full Use	Flow	81.5	41.6	25.5	7.9	7.5	120.1	61.4	230.5	345.0	238.7	165.9	109.7	119.6
No Act	Flow	85.9	44.6	27.1	7.9	7.5	131.0	66.5	236.1	341.9	235.8	162.8	111.8	121.6
Alt 1a	Flow	109.2	90.7	92.9	93.0	89.1	88.1	111.6	210.8	299.9	198.4	159.9	129.4	139.4
Alt 1c	Flow	109.5	91.4	93.1	91.9	88.6	87.7	110.8	212.4	304.8	190.6	155.8	129.4	138.8
Alt 8a	Flow	109.2	90.7	93.0	93.0	89.1	87.8	111.6	211.1	298.6	192.1	152.6	117.5	137.2
Alt 10a	Flow	109.2	90.7	93.0	93.0	89.1	87.9	111.6	211.1	298.6	192.2	152.7	117.7	137.2
Alt 13a	Flow	109.2	90.6	93.0	93.0	89.1	87.9	111.6	211.1	298.8	192.8	153.3	118.7	137.4
Flow change from Current Conditions														
Full Use	Flow Change	3.3	10.3	5.3	0.0	0.0	37.7	13.1	4.1	5.1	-4.6	-12.7	-3.9	4.8
No Act	Flow Change	7.6	13.3	6.9	0.0	0.0	48.6	18.2	9.7	1.9	-7.5	-15.8	-1.9	6.8
Alt 1a	Flow Change	31.0	59.4	72.7	85.1	81.6	5.7	63.4	-15.6	-40.0	-44.9	-18.6	15.7	24.6
Alt 1c	Flow Change	31.2	60.1	72.9	84.0	81.0	5.2	62.5	-14.0	-35.1	-52.7	-22.7	15.8	24.0
Alt 8a	Flow Change	30.9	59.4	72.8	85.1	81.6	5.4	63.4	-15.3	-41.3	-51.2	-26.0	3.8	22.4
Alt 10a	Flow Change	30.9	59.4	72.8	85.1	81.6	5.4	63.3	-15.3	-41.4	-51.1	-25.9	4.1	22.4
Alt 13a	Flow Change	30.9	59.4	72.8	85.1	81.6	5.4	63.3	-15.3	-41.2	-50.6	-25.3	5.1	22.6
Percent change in flow from Current Conditions														
Full Use	% Change	4%	33%	26%	0%	0%	46%	27%	2%	1%	-2%	-7%	-3%	4%
No Act	% Change	10%	43%	34%	0%	0%	59%	38%	4%	1%	-3%	-9%	-2%	6%
Alt 1a	% Change	40%	190%	360%	1083%	1088%	7%	131%	-7%	-12%	-18%	-10%	14%	21%
Alt 1c	% Change	40%	192%	361%	1069%	1080%	6%	129%	-6%	-10%	-22%	-13%	14%	21%
Alt 8a	% Change	39%	190%	361%	1083%	1088%	7%	131%	-7%	-12%	-21%	-15%	3%	19%
Alt 10a	% Change	39%	190%	361%	1083%	1088%	7%	131%	-7%	-12%	-21%	-14%	4%	20%
Alt 13a	% Change	39%	190%	361%	1083%	1088%	7%	131%	-7%	-12%	-21%	-14%	4%	20%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Current Conditions		93.5	35.5	24.9	12.3	11.7	83.4	91.7	209.6	401.0	361.5	271.5	195.7	149.4
Full Use	Flow	103.3	45.6	30.2	12.3	11.7	121.1	78.1	199.5	420.0	395.9	260.5	168.8	153.9
No Act	Flow	105.3	48.8	31.8	12.3	11.7	131.9	78.3	201.8	435.1	410.2	273.2	175.1	159.6
Alt 1a	Flow	124.6	95.7	97.3	96.8	93.7	90.9	94.5	158.9	412.1	407.1	260.8	172.2	175.4
Alt 1c	Flow	125.9	96.4	97.2	96.9	94.1	91.2	96.4	162.5	408.4	406.1	255.5	171.9	175.2
Alt 8a	Flow	127.9	95.7	97.3	96.8	93.7	90.9	94.4	158.9	411.8	406.2	261.6	172.5	175.6
Alt 10a	Flow	127.9	95.7	97.3	96.8	93.7	90.9	94.6	158.9	412.2	407.4	260.9	171.7	175.7
Alt 13a	Flow	126.0	95.7	97.3	96.8	93.7	90.9	96.1	158.9	412.0	406.6	261.5	172.0	175.6
Flow change from Current Conditions														
Full Use	Flow Change	9.7	10.1	5.3	0.0	0.0	37.7	-13.6	-10.1	19.0	34.4	-11.0	-27.0	4.6
No Act	Flow Change	11.8	13.3	6.9	0.0	0.0	48.5	-13.5	-7.8	34.1	48.7	1.7	-20.7	10.3
Alt 1a	Flow Change	31.1	60.2	72.4	84.5	82.1	7.5	2.7	-50.7	11.1	45.6	-10.8	-23.6	26.0
Alt 1c	Flow Change	32.4	60.9	72.3	84.6	82.5	7.8	4.7	-47.0	7.3	44.7	-16.0	-23.9	25.9
Alt 8a	Flow Change	34.4	60.2	72.4	84.5	82.1	7.5	2.6	-50.7	10.8	44.7	-10.0	-23.3	26.3
Alt 10a	Flow Change	34.4	60.2	72.4	84.5	82.1	7.5	2.8	-50.7	11.2	46.0	-10.7	-24.0	26.3
Alt 13a	Flow Change	32.5	60.2	72.4	84.5	82.1	7.5	4.3	-50.7	11.0	45.1	-10.1	-23.8	26.3
Percent change in flow from Current Conditions														
Full Use	% Change	10%	28%	21%	0%	0%	45%	-15%	-5%	5%	10%	-4%	-14%	3%
No Act	% Change	13%	37%	28%	0%	0%	58%	-15%	-4%	9%	13%	1%	-11%	7%
Alt 1a	% Change	33%	170%	291%	687%	704%	9%	3%	-24%	3%	13%	-4%	-12%	17%
Alt 1c	% Change	35%	172%	291%	688%	708%	9%	5%	-22%	2%	12%	-6%	-12%	17%
Alt 8a	% Change	37%	170%	291%	687%	704%	9%	3%	-24%	3%	12%	-4%	-12%	18%
Alt 10a	% Change	37%	170%	291%	687%	704%	9%	3%	-24%	3%	13%	-4%	-12%	18%
Alt 13a	% Change	35%	170%	291%	687%	704%	9%	5%	-24%	3%	12%	-4%	-12%	18%

Table H-1.67. South Boulder Creek near Eldorado Springs Gage (cfs)

Flow Change and % Change are based on comparisons to Current Conditions														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		20.6	15.4	11.9	9.7	10.3	16.4	43.6	157.7	281.4	129.9	49.0	26.0	64.3
Full Use	Flow	20.7	15.5	11.9	9.7	10.3	16.8	43.7	156.0	277.5	129.8	48.7	25.7	63.8
No Act	Flow	20.7	15.5	11.9	9.7	10.3	16.8	43.7	154.0	275.3	129.9	48.8	25.7	63.5
Alt 1a	Flow	20.9	16.0	12.5	10.5	11.1	16.6	43.9	148.1	266.2	129.7	48.7	25.7	62.5
Alt 1c	Flow	20.9	16.0	12.5	10.5	11.0	16.5	43.9	148.1	265.8	129.7	48.7	25.7	62.4
Alt 8a	Flow	20.9	15.9	12.5	10.5	11.0	16.5	43.9	148.1	266.2	129.6	48.7	25.7	62.5
Alt 10a	Flow	20.9	15.9	12.5	10.5	11.0	16.5	43.9	148.1	266.3	129.6	48.7	25.7	62.5
Alt 13a	Flow	20.9	16.0	12.5	10.5	11.0	16.6	43.9	148.1	266.2	129.6	48.7	25.7	62.5
Flow change from Current Conditions														
Full Use	Flow Change	0.0	0.1	0.0	0.0	0.0	0.3	0.1	-1.7	-3.9	-0.1	-0.2	-0.4	-0.5
No Act	Flow Change	0.0	0.1	0.0	0.0	0.0	0.4	0.1	-3.7	-6.2	0.0	-0.2	-0.3	-0.8
Alt 1a	Flow Change	0.3	0.6	0.7	0.8	0.8	0.1	0.3	-9.6	-15.3	-0.2	-0.2	-0.3	-1.8
Alt 1c	Flow Change	0.3	0.6	0.6	0.8	0.7	0.1	0.2	-9.6	-15.7	-0.2	-0.2	-0.3	-1.9
Alt 8a	Flow Change	0.3	0.5	0.6	0.8	0.8	0.1	0.3	-9.6	-15.2	-0.3	-0.3	-0.3	-1.9
Alt 10a	Flow Change	0.3	0.5	0.6	0.8	0.8	0.1	0.3	-9.6	-15.2	-0.3	-0.3	-0.3	-1.9
Alt 13a	Flow Change	0.3	0.5	0.6	0.8	0.8	0.1	0.3	-9.6	-15.3	-0.3	-0.3	-0.3	-1.9
Percent change in flow from Current Conditions														
Full Use	% Change	0%	0%	0%	0%	0%	2%	0%	-1%	-1%	0%	-1%	-1%	-1%
No Act	% Change	0%	1%	0%	0%	0%	2%	0%	-2%	-2%	0%	0%	-1%	-1%
Alt 1a	% Change	1%	4%	6%	8%	8%	1%	1%	-6%	-5%	0%	0%	-1%	-3%
Alt 1c	% Change	1%	4%	5%	8%	7%	0%	1%	-6%	-6%	0%	-1%	-1%	-3%
Alt 8a	% Change	1%	3%	5%	8%	7%	1%	1%	-6%	-5%	0%	-1%	-1%	-3%
Alt 10a	% Change	1%	3%	5%	8%	7%	1%	1%	-6%	-5%	0%	-1%	-1%	-3%
Alt 13a	% Change	1%	4%	5%	8%	8%	1%	1%	-6%	-5%	0%	-1%	-1%	-3%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Current Conditions		14.6	11.1	8.6	6.9	7.6	10.7	29.1	106.5	183.5	52.4	28.5	22.1	40.1
Full Use	Flow	14.6	11.2	8.6	6.9	7.6	11.0	29.2	106.5	183.6	52.6	28.5	22.1	40.2
No Act	Flow	14.6	11.2	8.6	6.9	7.6	11.1	29.3	106.5	183.6	52.6	28.4	22.1	40.2
Alt 1a	Flow	14.8	11.6	9.2	7.6	8.3	10.7	29.6	106.5	183.4	52.3	28.4	22.3	40.4
Alt 1c	Flow	14.8	11.7	9.2	7.6	8.3	10.7	29.6	106.5	183.4	52.2	28.3	22.3	40.4
Alt 8a	Flow	14.8	11.6	9.2	7.6	8.3	10.7	29.6	106.5	183.4	52.3	28.3	22.2	40.4
Alt 10a	Flow	14.8	11.6	9.2	7.6	8.3	10.7	29.6	106.5	183.4	52.3	28.3	22.2	40.4
Alt 13a	Flow	14.8	11.6	9.2	7.6	8.3	10.7	29.6	106.5	183.4	52.3	28.3	22.2	40.4
Flow change from Current Conditions														
Full Use	Flow Change	0.0	0.1	0.0	0.0	0.0	0.3	0.1	0.0	0.1	0.2	-0.1	0.0	0.1
No Act	Flow Change	0.0	0.1	0.0	0.0	0.0	0.4	0.1	0.0	0.1	0.2	-0.1	0.0	0.1
Alt 1a	Flow Change	0.2	0.5	0.6	0.8	0.7	0.1	0.5	0.0	-0.1	-0.1	-0.1	0.1	0.3
Alt 1c	Flow Change	0.2	0.5	0.6	0.8	0.7	0.1	0.5	0.0	-0.1	-0.1	-0.2	0.1	0.3
Alt 8a	Flow Change	0.2	0.5	0.6	0.8	0.7	0.1	0.5	0.0	-0.1	-0.1	-0.2	0.0	0.2
Alt 10a	Flow Change	0.2	0.5	0.6	0.8	0.7	0.1	0.5	0.0	-0.1	-0.1	-0.2	0.0	0.2
Alt 13a	Flow Change	0.2	0.5	0.6	0.8	0.7	0.1	0.5	0.0	-0.1	-0.1	-0.2	0.0	0.2
Percent change in flow from Current Conditions														
Full Use	% Change	0%	1%	0%	0%	0%	3%	0%	0%	0%	0%	0%	0%	0%
No Act	% Change	0%	1%	0%	0%	0%	4%	1%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	2%	5%	7%	11%	10%	1%	2%	0%	0%	0%	0%	1%	1%
Alt 1c	% Change	2%	5%	7%	11%	10%	1%	2%	0%	0%	0%	-1%	1%	1%
Alt 8a	% Change	2%	5%	7%	11%	10%	1%	2%	0%	0%	0%	-1%	0%	1%
Alt 10a	% Change	2%	5%	7%	11%	10%	1%	2%	0%	0%	0%	-1%	0%	1%
Alt 13a	% Change	2%	5%	7%	11%	10%	1%	2%	0%	0%	0%	-1%	0%	1%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Current Conditions		26.2	20.6	15.3	12.0	11.8	19.4	45.3	181.9	342.7	189.8	67.3	31.1	80.3
Full Use	Flow	26.2	20.6	15.4	12.0	11.8	19.8	45.3	169.7	326.2	188.4	67.3	31.0	77.8
No Act	Flow	26.3	20.7	15.4	12.0	11.8	19.9	45.3	164.0	320.0	188.5	67.6	31.1	76.9
Alt 1a	Flow	26.4	21.1	16.0	12.8	12.5	19.5	45.3	141.7	301.9	188.3	67.4	31.1	73.7
Alt 1c	Flow	26.4	21.1	16.0	12.8	12.5	19.5	45.3	141.8	300.7	188.4	67.3	31.1	73.6
Alt 8a	Flow	26.4	21.1	16.0	12.8	12.5	19.5	45.3	141.7	302.0	188.3	67.4	31.1	73.7
Alt 10a	Flow	26.4	21.1	16.0	12.8	12.5	19.5	45.3	141.7	301.8	188.3	67.4	31.1	73.7
Alt 13a	Flow	26.4	21.1	16.0	12.8	12.5	19.5	45.4	141.7	301.9	188.3	67.4	31.1	73.7
Flow change from Current Conditions														
Full Use	Flow Change	0.1	0.1	0.0	0.0	0.0	0.3	0.0	-12.2	-16.5	-1.4	0.0	-0.2	-2.5
No Act	Flow Change	0.1	0.1	0.0	0.0	0.0	0.4	0.0	-18.0	-22.7	-1.3	0.3	0.0	-3.4
Alt 1a	Flow Change	0.2	0.5	0.6	0.8	0.7	0.1	0.0	-40.2	-40.8	-1.5	0.1	-0.1	-6.6
Alt 1c	Flow Change	0.3	0.5	0.6	0.8	0.7	0.1	0.0	-40.1	-42.0	-1.4	0.0	-0.1	-6.7
Alt 8a	Flow Change	0.3	0.5	0.6	0.8	0.7	0.1	0.0	-40.2	-40.7	-1.5	0.1	-0.1	-6.6
Alt 10a	Flow Change	0.3	0.5	0.6	0.8	0.7	0.1	0.0	-40.2	-40.9	-1.5	0.1	-0.1	-6.6
Alt 13a	Flow Change	0.3	0.5	0.6	0.8	0.7	0.1	0.0	-40.2	-40.8	-1.5	0.1	-0.1	-6.6
Percent change in flow from Current Conditions														
Full Use	% Change	0%	0%	0%	0%	0%	2%	0%	-7%	-5%	-1%	0%	-1%	-3%
No Act	% Change	0%	0%	0%	0%	0%	2%	0%	-10%	-7%	-1%	0%	0%	-4%
Alt 1a	% Change	1%	2%	4%	6%	6%	0%	0%	-22%	-12%	-1%	0%	0%	-8%
Alt 1c	% Change	1%	3%	4%	6%	6%	0%	0%	-22%	-12%	-1%	0%	0%	-8%
Alt 8a	% Change	1%	2%	4%	6%	6%	0%	0%	-22%	-12%	-1%	0%	0%	-8%
Alt 10a	% Change	1%	2%	4%	6%	6%	0%	0%	-22%	-12%	-1%	0%	0%	-8%
Alt 13a	% Change	1%	2%	4%	6%	6%	0%	0%	-22%	-12%	-1%	0%	0%	-8%

Table H-1.68. North Fork South Platte River below Geneva Creek Gage (cfs)

Flow Change and % Change are based on comparisons to Current Conditions														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		152.8	96.9	95.8	86.1	86.9	79.8	113.0	171.9	312.3	255.1	257.9	235.2	162.0
Full Use	Flow	204.6	114.8	113.8	97.1	96.9	87.5	123.1	193.5	355.7	318.3	332.1	340.4	198.2
No Act	Flow	218.0	120.0	122.2	107.1	107.2	96.9	132.8	202.4	364.2	343.1	361.6	366.1	211.8
Alt 1a	Flow	200.8	86.4	82.2	68.8	68.0	63.8	112.2	248.9	403.5	380.4	375.0	362.4	204.4
Alt 1c	Flow	200.9	86.6	82.3	68.7	68.2	63.9	112.0	249.0	403.7	381.3	378.4	364.3	204.9
Alt 8a	Flow	200.7	86.6	82.3	69.3	68.4	64.1	111.3	247.9	402.0	379.0	372.9	360.3	203.7
Alt 10a	Flow	200.4	86.6	82.3	69.3	68.4	64.0	111.4	248.3	402.2	378.9	372.8	360.7	203.8
Alt 13a	Flow	200.2	86.2	82.0	68.5	68.2	63.6	111.6	248.9	402.7	380.9	373.6	361.3	204.0
Flow change from Current Conditions														
Full Use	Flow Change	51.8	17.9	18.1	11.0	10.0	7.6	10.1	21.6	43.4	63.2	74.3	105.2	36.2
No Act	Flow Change	65.2	23.1	26.4	20.9	20.4	17.1	19.8	30.5	51.9	88.0	103.7	130.9	49.8
Alt 1a	Flow Change	48.0	-10.5	-13.6	-17.3	-18.8	-16.0	-0.8	77.0	91.2	125.3	117.2	127.2	42.4
Alt 1c	Flow Change	48.1	-10.3	-13.5	-17.5	-18.7	-16.0	-1.0	77.1	91.4	126.2	120.5	129.1	42.9
Alt 8a	Flow Change	47.9	-10.3	-13.5	-16.9	-18.4	-15.8	-1.7	76.0	89.7	123.8	115.0	125.1	41.7
Alt 10a	Flow Change	47.6	-10.3	-13.5	-16.8	-18.4	-15.8	-1.6	76.4	89.9	123.8	114.9	125.5	41.8
Alt 13a	Flow Change	47.4	-10.8	-13.8	-17.6	-18.7	-16.2	-1.4	77.0	90.3	125.8	115.7	126.1	42.0
Percent change in flow from Current Conditions														
Full Use	% Change	34%	18%	19%	13%	12%	10%	9%	13%	14%	25%	29%	45%	22%
No Act	% Change	43%	24%	28%	24%	23%	21%	17%	18%	17%	34%	40%	56%	31%
Alt 1a	% Change	31%	-11%	-14%	-20%	-22%	-20%	-1%	45%	29%	49%	45%	54%	26%
Alt 1c	% Change	31%	-11%	-14%	-20%	-22%	-20%	-1%	45%	29%	49%	47%	55%	27%
Alt 8a	% Change	31%	-11%	-14%	-20%	-21%	-20%	-2%	44%	29%	49%	45%	53%	26%
Alt 10a	% Change	31%	-11%	-14%	-20%	-21%	-20%	-1%	44%	29%	49%	45%	53%	26%
Alt 13a	% Change	31%	-11%	-14%	-20%	-21%	-20%	-1%	45%	29%	49%	45%	54%	26%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Current Conditions		207.0	100.8	98.3	89.9	103.5	89.9	258.7	266.9	337.4	337.3	317.5	297.9	208.7
Full Use	Flow	277.3	132.9	133.9	103.9	114.4	105.7	279.2	319.6	436.5	413.9	388.2	346.1	254.3
No Act	Flow	298.9	138.8	143.9	112.4	125.0	116.5	290.8	324.8	453.4	430.0	385.5	325.0	262.1
Alt 1a	Flow	281.7	101.7	104.3	77.1	89.2	75.5	268.4	373.7	506.1	487.0	402.8	327.3	257.9
Alt 1c	Flow	281.1	101.7	104.2	77.0	89.5	75.5	268.1	373.4	505.2	485.3	402.4	327.0	257.5
Alt 8a	Flow	282.6	101.9	104.3	77.4	89.4	75.5	267.7	373.5	505.5	486.6	402.9	328.2	257.9
Alt 10a	Flow	281.6	102.3	104.2	77.0	89.1	75.7	268.1	373.8	505.8	485.8	402.5	327.7	257.8
Alt 13a	Flow	279.0	101.8	104.3	77.0	89.7	75.8	268.1	374.7	506.5	486.4	403.6	328.1	257.9
Flow change from Current Conditions														
Full Use	Flow Change	70.3	32.2	35.6	14.0	11.0	15.8	20.5	52.7	99.1	76.7	70.7	48.2	45.6
No Act	Flow Change	91.9	38.1	45.6	22.4	21.6	26.6	32.0	57.9	116.0	92.7	68.0	27.1	53.3
Alt 1a	Flow Change	74.7	1.0	5.9	-12.9	-14.3	-14.4	9.7	106.8	168.7	149.7	85.3	29.4	49.1
Alt 1c	Flow Change	74.1	0.9	5.9	-12.9	-14.0	-14.4	9.3	106.6	167.8	148.0	84.9	29.1	48.8
Alt 8a	Flow Change	75.6	1.2	5.9	-12.5	-14.1	-14.4	9.0	106.6	168.1	149.3	85.4	30.4	49.2
Alt 10a	Flow Change	74.7	1.5	5.9	-12.9	-14.4	-14.2	9.3	107.0	168.5	148.5	85.0	29.9	49.1
Alt 13a	Flow Change	72.0	1.1	5.9	-12.9	-13.8	-14.1	9.4	107.8	169.2	149.1	86.1	30.2	49.2
Percent change in flow from Current Conditions														
Full Use	% Change	34%	32%	36%	16%	11%	18%	8%	20%	29%	23%	22%	16%	22%
No Act	% Change	44%	38%	46%	25%	21%	30%	12%	22%	34%	27%	21%	9%	26%
Alt 1a	% Change	36%	1%	6%	-14%	-14%	-16%	4%	40%	50%	44%	27%	10%	24%
Alt 1c	% Change	36%	1%	6%	-14%	-14%	-16%	4%	40%	50%	44%	27%	10%	23%
Alt 8a	% Change	37%	1%	6%	-14%	-14%	-16%	3%	40%	50%	44%	27%	10%	24%
Alt 10a	% Change	36%	1%	6%	-14%	-14%	-16%	4%	40%	50%	44%	27%	10%	24%
Alt 13a	% Change	35%	1%	6%	-14%	-13%	-16%	4%	40%	50%	44%	27%	10%	24%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Current Conditions		125.3	77.5	81.0	71.2	84.3	62.1	61.9	164.3	347.8	236.2	153.9	159.4	135.4
Full Use	Flow	176.8	97.4	97.5	82.5	98.8	69.9	68.4	167.1	350.6	247.5	235.2	256.0	162.3
No Act	Flow	200.2	105.9	111.1	97.3	108.9	78.6	72.6	174.1	354.4	253.5	238.7	280.3	173.0
Alt 1a	Flow	189.9	75.3	71.7	52.4	62.0	48.9	59.2	181.7	353.0	253.7	267.7	284.5	158.3
Alt 1c	Flow	189.1	75.9	71.8	52.4	62.1	48.9	57.6	182.1	353.1	253.8	270.6	289.0	158.9
Alt 8a	Flow	187.2	75.6	71.7	52.3	62.3	49.1	59.2	181.7	353.0	253.0	268.4	283.7	158.1
Alt 10a	Flow	187.0	75.6	71.7	52.3	62.3	48.9	59.7	181.6	353.0	253.9	267.3	285.5	158.2
Alt 13a	Flow	189.7	75.2	71.7	52.4	62.1	47.2	59.4	181.5	353.0	253.1	266.5	286.5	158.2
Flow change from Current Conditions														
Full Use	Flow Change	51.5	19.9	16.5	11.3	14.5	7.8	6.4	2.7	2.8	11.3	81.3	96.6	26.9
No Act	Flow Change	74.9	28.4	30.1	26.1	24.6	16.5	10.7	9.7	6.6	17.3	84.8	120.9	37.5
Alt 1a	Flow Change	64.6	-2.2	-9.3	-18.8	-22.3	-13.2	-2.7	17.4	5.2	17.4	113.9	125.1	22.9
Alt 1c	Flow Change	63.8	-1.5	-9.2	-18.8	-22.2	-13.2	-4.4	17.7	5.3	17.6	116.7	129.6	23.5
Alt 8a	Flow Change	61.9	-1.9	-9.3	-18.9	-22.0	-13.1	-2.7	17.3	5.2	16.8	114.5	124.3	22.7
Alt 10a	Flow Change	61.7	-1.8	-9.3	-18.9	-22.0	-13.2	-2.2	17.2	5.2	17.7	113.4	126.1	22.8
Alt 13a	Flow Change	64.4	-2.3	-9.3	-18.8	-22.2	-14.9	-2.5	17.2	5.2	16.9	112.6	127.2	22.8
Percent change in flow from Current Conditions														
Full Use	% Change	41%	26%	20%	16%	17%	13%	10%	2%	1%	5%	53%	61%	20%
No Act	% Change	60%	37%	37%	37%	29%	27%	17%	6%	2%	7%	55%	76%	28%
Alt 1a	% Change	52%	-3%	-11%	-26%	-26%	-21%	-4%	11%	1%	7%	74%	79%	17%
Alt 1c	% Change	51%	-2%	-11%	-26%	-26%	-21%	-7%	11%	2%	7%	76%	81%	17%
Alt 8a	% Change	49%	-2%	-11%	-27%	-26%	-21%	-4%	11%	1%	7%	74%	78%	17%
Alt 10a	% Change	49%	-2%	-11%	-27%	-26%	-21%	-4%	10%	2%	7%	74%	79%	17%
Alt 13a	% Change	51%	-3%	-11%	-26%	-26%	-24%	-4%	10%	1%	7%	73%	80%	17%

Table H-1.69. Antero Reservoir Outflow (cfs)

Flow Change and % Change are based on comparisons to Current Conditions														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		14.9	14.0	12.0	13.7	13.1	16.1	23.8	50.5	99.4	53.8	30.7	16.7	29.9
Full Use	Flow	15.5	14.7	12.7	11.5	10.5	14.5	23.7	50.1	100.9	56.3	32.4	16.5	29.9
No Act	Flow	17.7	15.3	14.0	12.2	10.9	14.6	24.7	49.7	99.2	55.8	30.3	16.0	30.0
Alt 1a	Flow	15.6	14.1	12.5	11.7	11.1	14.5	23.7	49.8	100.7	55.5	32.2	18.2	30.0
Alt 1c	Flow	15.6	14.2	12.5	11.6	11.1	14.5	23.7	49.8	100.7	55.5	32.2	18.1	30.0
Alt 8a	Flow	15.6	14.2	12.5	11.7	11.1	14.5	23.7	50.1	100.6	55.5	32.2	18.0	30.0
Alt 10a	Flow	15.6	14.2	12.5	11.7	11.1	14.5	23.7	50.1	100.5	55.5	32.1	18.1	30.0
Alt 13a	Flow	15.6	14.1	12.6	11.6	11.0	14.5	23.7	49.9	100.7	55.4	32.1	18.3	30.0
Flow change from Current Conditions														
Full Use	Flow Change	0.5	0.7	0.7	-2.2	-2.7	-1.6	-0.1	-0.3	1.5	2.5	1.7	-0.2	0.0
No Act	Flow Change	2.7	1.3	2.0	-1.5	-2.2	-1.5	0.9	-0.7	-0.2	2.0	-0.4	-0.7	0.1
Alt 1a	Flow Change	0.7	0.1	0.5	-2.0	-2.0	-1.7	-0.1	-0.7	1.3	1.7	1.4	1.5	0.1
Alt 1c	Flow Change	0.7	0.2	0.5	-2.1	-2.0	-1.7	-0.1	-0.6	1.3	1.7	1.5	1.4	0.1
Alt 8a	Flow Change	0.7	0.2	0.5	-2.0	-2.0	-1.7	-0.1	-0.3	1.2	1.7	1.5	1.3	0.1
Alt 10a	Flow Change	0.7	0.2	0.5	-2.0	-2.0	-1.7	-0.1	-0.4	1.1	1.7	1.3	1.4	0.1
Alt 13a	Flow Change	0.7	0.1	0.6	-2.1	-2.1	-1.7	-0.1	-0.5	1.3	1.6	1.4	1.5	0.1
Percent change in flow from Current Conditions														
Full Use	% Change	4%	5%	6%	-16%	-20%	-10%	-1%	-1%	2%	5%	6%	-1%	0%
No Act	% Change	18%	9%	17%	-11%	-17%	-9%	4%	-1%	0%	4%	-1%	-4%	0%
Alt 1a	% Change	5%	1%	5%	-15%	-15%	-10%	0%	-1%	1%	3%	5%	9%	0%
Alt 1c	% Change	5%	2%	4%	-15%	-15%	-10%	0%	-1%	1%	3%	5%	8%	0%
Alt 8a	% Change	5%	1%	4%	-15%	-15%	-10%	0%	-1%	1%	3%	5%	8%	0%
Alt 10a	% Change	5%	2%	4%	-14%	-15%	-10%	0%	-1%	1%	3%	4%	8%	0%
Alt 13a	% Change	5%	1%	5%	-15%	-16%	-10%	0%	-1%	1%	3%	4%	9%	0%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Current Conditions		13.6	12.6	9.3	6.9	7.6	14.2	9.2	21.5	25.5	10.9	9.0	5.9	12.2
Full Use	Flow	14.1	12.6	9.3	6.8	6.7	13.8	9.9	21.2	24.0	11.0	16.5	5.8	12.6
No Act	Flow	14.2	12.6	9.3	6.8	6.9	13.5	9.9	18.7	26.2	12.8	13.1	7.0	12.6
Alt 1a	Flow	14.1	12.6	9.3	6.9	7.0	13.4	9.9	20.3	25.0	11.1	16.5	10.0	13.0
Alt 1c	Flow	14.0	12.6	9.3	6.9	6.9	13.5	9.9	20.4	25.0	11.1	17.3	9.2	13.0
Alt 8a	Flow	14.0	12.6	9.3	6.9	6.8	13.5	9.9	20.4	25.0	11.1	16.1	9.7	12.9
Alt 10a	Flow	14.0	12.6	9.3	6.9	6.8	13.6	9.9	20.4	25.0	11.1	15.6	10.2	12.9
Alt 13a	Flow	14.0	12.6	9.3	6.9	6.8	13.5	9.9	20.4	25.0	11.2	16.0	9.9	12.9
Flow change from Current Conditions														
Full Use	Flow Change	0.5	0.0	0.0	0.0	-0.9	-0.5	0.7	-0.3	-1.5	0.1	7.4	-0.1	0.4
No Act	Flow Change	0.6	-0.1	0.0	0.0	-0.7	-0.7	0.8	-2.8	0.6	2.0	4.1	1.1	0.4
Alt 1a	Flow Change	0.5	0.0	0.0	0.0	-0.6	-0.9	0.8	-1.1	-0.5	0.2	7.5	4.1	0.8
Alt 1c	Flow Change	0.4	0.0	0.0	0.0	-0.7	-0.7	0.8	-1.1	-0.6	0.2	8.2	3.2	0.8
Alt 8a	Flow Change	0.4	0.0	0.0	0.0	-0.8	-0.7	0.8	-1.1	-0.5	0.2	7.1	3.8	0.8
Alt 10a	Flow Change	0.4	0.0	0.0	0.0	-0.8	-0.7	0.8	-1.1	-0.5	0.2	6.6	4.3	0.8
Alt 13a	Flow Change	0.4	-0.1	0.0	0.0	-0.8	-0.7	0.8	-1.1	-0.5	0.3	6.9	3.9	0.8
Percent change in flow from Current Conditions														
Full Use	% Change	4%	0%	0%	0%	-12%	-3%	8%	-1%	-6%	1%	82%	-2%	4%
No Act	% Change	4%	0%	0%	0%	-9%	-5%	8%	-13%	2%	18%	45%	19%	3%
Alt 1a	% Change	3%	0%	0%	0%	-8%	-6%	8%	-5%	-2%	2%	83%	70%	7%
Alt 1c	% Change	3%	0%	0%	0%	-10%	-5%	8%	-5%	-2%	2%	91%	55%	7%
Alt 8a	% Change	3%	0%	0%	0%	-10%	-5%	8%	-5%	-2%	2%	78%	65%	6%
Alt 10a	% Change	3%	0%	0%	0%	-10%	-5%	8%	-5%	-2%	2%	73%	73%	6%
Alt 13a	% Change	3%	0%	0%	0%	-10%	-5%	8%	-5%	-2%	3%	77%	67%	6%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Current Conditions		18.6	15.3	14.3	11.4	11.3	17.7	42.1	79.9	159.0	102.2	59.4	26.1	46.4
Full Use	Flow	18.4	15.3	14.3	11.4	11.3	17.7	42.1	79.9	159.0	102.2	59.4	26.3	46.4
No Act	Flow	18.4	15.4	14.3	11.4	11.3	17.7	42.1	79.9	159.0	102.2	59.4	26.1	46.4
Alt 1a	Flow	18.4	15.4	14.3	11.4	11.3	17.7	42.1	79.9	159.0	102.2	59.4	26.1	46.4
Alt 1c	Flow	18.4	15.4	14.3	11.4	11.3	17.7	42.1	79.9	159.0	102.2	59.4	26.1	46.4
Alt 8a	Flow	18.4	15.4	14.3	11.4	11.3	17.7	42.1	79.9	159.0	102.2	59.4	26.1	46.4
Alt 10a	Flow	18.4	15.5	14.3	11.4	11.3	17.7	42.1	79.9	159.0	102.2	59.4	26.1	46.4
Alt 13a	Flow	18.4	15.4	14.3	11.4	11.3	17.7	42.1	79.9	159.0	102.2	59.4	26.1	46.4
Flow change from Current Conditions														
Full Use	Flow Change	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
No Act	Flow Change	-0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Alt 1a	Flow Change	-0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Alt 1c	Flow Change	-0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Alt 8a	Flow Change	-0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Alt 10a	Flow Change	-0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Alt 13a	Flow Change	-0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Percent change in flow from Current Conditions														
Full Use	% Change	-1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
No Act	% Change	-1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	-1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	-1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	-1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	-1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	-1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Appendix H-1
Comparison of Current Conditions, Full Use of the Existing System, and EIS Alternatives with RFFAs

Table H-1.70. Eleven Mile Canyon Reservoir Outflow (cfs)

Flow Change and % Change are based on comparisons to Current Conditions		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		111.5	85.4	72.7	72.9	77.2	96.7	137.0	154.9	264.6	264.3	236.4	155.2	144.1
Full Use	Flow	114.9	88.9	75.0	73.2	76.7	97.6	139.5	152.0	264.3	259.2	241.8	156.8	145.0
No Act	Flow	117.5	90.3	77.6	74.2	76.6	98.9	143.6	154.1	261.9	256.1	238.2	156.6	145.5
Alt 1a	Flow	114.1	87.2	73.5	73.3	76.0	94.7	136.4	155.0	268.0	260.5	241.3	160.1	145.0
Alt 1c	Flow	114.1	87.4	73.4	73.2	75.9	94.6	136.2	155.3	267.4	261.0	241.9	160.0	145.0
Alt 8a	Flow	114.1	87.4	73.4	73.4	76.0	95.2	136.2	155.4	267.7	261.0	241.0	159.5	145.0
Alt 10a	Flow	113.9	87.3	73.3	73.5	76.1	94.8	136.1	155.4	267.8	261.1	241.0	159.4	145.0
Alt 13a	Flow	113.9	87.1	73.6	73.3	75.9	94.6	136.1	154.9	268.0	259.9	241.3	160.1	144.9
		Flow change from Current Conditions												
Full Use	Flow Change	3.4	3.5	2.3	0.3	-0.5	0.9	2.5	-2.8	-0.3	-5.1	5.3	1.6	0.9
No Act	Flow Change	5.9	4.9	4.9	1.2	-0.6	2.1	6.6	-0.7	-2.7	-8.2	1.8	1.5	1.4
Alt 1a	Flow Change	2.5	1.8	0.8	0.3	-1.2	-2.0	-0.6	0.2	3.4	-3.8	4.8	5.0	0.9
Alt 1c	Flow Change	2.6	2.0	0.7	0.2	-1.3	-2.1	-0.8	0.5	2.8	-3.3	5.5	4.8	1.0
Alt 8a	Flow Change	2.6	2.0	0.7	0.4	-1.2	-1.5	-0.8	0.5	3.1	-3.3	4.6	4.4	1.0
Alt 10a	Flow Change	2.4	1.9	0.7	0.6	-1.1	-1.9	-0.9	0.5	3.2	-3.2	4.6	4.2	0.9
Alt 13a	Flow Change	2.3	1.7	0.9	0.3	-1.3	-2.2	-0.9	0.0	3.5	-4.4	4.9	4.9	0.8
		Percent change in flow from Current Conditions												
Full Use	% Change	3%	4%	3%	0%	-1%	1%	2%	-2%	0%	-2%	2%	1%	1%
No Act	% Change	5%	6%	7%	2%	-1%	2%	5%	0%	-1%	-3%	1%	1%	1%
Alt 1a	% Change	2%	2%	1%	0%	-2%	-2%	0%	0%	1%	-1%	2%	3%	1%
Alt 1c	% Change	2%	2%	1%	0%	-2%	-2%	-1%	0%	1%	-1%	2%	3%	1%
Alt 8a	% Change	2%	2%	1%	1%	-1%	-2%	-1%	0%	1%	-1%	2%	3%	1%
Alt 10a	% Change	2%	2%	1%	1%	-1%	-2%	-1%	0%	1%	-1%	2%	3%	1%
Alt 13a	% Change	2%	2%	1%	0%	-2%	-2%	-1%	0%	1%	-2%	2%	3%	1%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Current Conditions		112.7	96.8	76.4	69.6	76.4	99.2	119.5	148.3	177.4	205.2	177.8	158.2	126.5
Full Use	Flow	111.0	96.0	76.8	70.8	77.1	96.3	119.5	146.8	174.0	203.7	192.6	170.5	127.9
No Act	Flow	112.1	96.5	77.4	71.6	74.8	98.8	119.4	140.9	181.6	206.5	212.4	176.8	130.7
Alt 1a	Flow	111.9	96.0	76.8	70.2	76.1	98.4	119.0	143.7	178.6	204.6	195.7	173.6	128.7
Alt 1c	Flow	111.8	96.0	76.7	70.2	76.0	98.5	119.0	143.7	178.5	204.6	197.1	173.4	128.8
Alt 8a	Flow	112.0	96.0	76.8	70.2	76.0	98.6	119.0	143.8	178.8	205.0	194.7	172.9	128.7
Alt 10a	Flow	111.8	96.0	76.8	70.2	76.0	98.5	119.0	143.7	178.5	204.8	193.7	173.0	128.5
Alt 13a	Flow	111.6	95.9	76.8	70.2	75.9	98.5	118.9	143.2	178.0	204.2	194.6	173.5	128.4
		Flow change from Current Conditions												
Full Use	Flow Change	-1.7	-0.8	0.4	1.2	0.7	-3.0	0.0	-1.4	-3.4	-1.5	14.7	12.3	1.5
No Act	Flow Change	-0.5	-0.4	1.0	1.9	-1.6	-0.4	-0.2	-7.4	4.2	1.3	34.5	18.6	4.3
Alt 1a	Flow Change	-0.7	-0.8	0.4	0.6	-0.3	-0.9	-0.5	-4.6	1.2	-0.7	17.8	15.4	2.2
Alt 1c	Flow Change	-0.9	-0.8	0.3	0.6	-0.4	-0.8	-0.6	-4.6	1.1	-0.6	19.3	15.2	2.3
Alt 8a	Flow Change	-0.6	-0.8	0.4	0.6	-0.4	-0.6	-0.6	-4.4	1.4	-0.3	16.8	14.7	2.2
Alt 10a	Flow Change	-0.8	-0.8	0.4	0.5	-0.4	-0.7	-0.6	-4.6	1.1	-0.4	15.8	14.8	2.0
Alt 13a	Flow Change	-1.1	-0.9	0.4	0.6	-0.5	-0.7	-0.6	-5.0	0.6	-1.1	16.7	15.3	2.0
		Percent change in flow from Current Conditions												
Full Use	% Change	-1%	-1%	0%	2%	1%	-3%	0%	-1%	-2%	-1%	8%	8%	1%
No Act	% Change	0%	0%	1%	3%	-2%	0%	0%	-5%	2%	1%	19%	12%	3%
Alt 1a	% Change	-1%	-1%	0%	1%	0%	-1%	0%	-3%	1%	0%	10%	10%	2%
Alt 1c	% Change	-1%	-1%	0%	1%	-1%	-1%	0%	-3%	1%	0%	11%	10%	2%
Alt 8a	% Change	-1%	-1%	0%	1%	-1%	-1%	0%	-3%	1%	0%	9%	9%	2%
Alt 10a	% Change	-1%	-1%	0%	1%	-1%	-1%	0%	-3%	1%	0%	9%	9%	2%
Alt 13a	% Change	-1%	-1%	0%	1%	-1%	-1%	-1%	-3%	0%	-1%	9%	10%	2%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Current Conditions		117.2	73.6	74.7	78.2	77.8	89.2	218.8	236.3	476.5	456.7	314.5	162.1	198.0
Full Use	Flow	111.5	76.2	77.4	77.6	78.3	98.8	220.1	236.9	468.3	458.2	311.5	162.9	198.2
No Act	Flow	113.5	75.6	77.3	77.5	78.2	99.0	220.2	236.3	469.6	457.2	313.4	163.3	198.4
Alt 1a	Flow	111.6	72.7	71.9	77.5	77.4	97.4	218.6	236.5	469.9	458.2	309.7	164.1	197.1
Alt 1c	Flow	111.6	72.7	71.7	77.6	77.4	97.4	218.6	236.9	469.4	458.1	309.8	164.2	197.1
Alt 8a	Flow	112.1	72.8	72.0	77.4	77.6	97.5	218.6	236.5	470.1	458.4	309.9	164.2	197.2
Alt 10a	Flow	111.5	72.8	71.9	77.7	77.3	97.5	218.6	236.4	470.3	458.0	309.6	164.1	197.1
Alt 13a	Flow	111.0	73.0	72.0	78.0	76.6	97.5	218.6	236.3	470.2	458.3	310.0	164.0	197.1
		Flow change from Current Conditions												
Full Use	Flow Change	-5.6	2.6	2.7	-0.6	0.5	9.6	1.3	0.7	-8.2	1.4	-3.0	0.8	0.2
No Act	Flow Change	-3.7	2.0	2.6	-0.7	0.4	9.8	1.4	0.1	-6.9	0.4	-1.1	1.2	0.5
Alt 1a	Flow Change	-5.5	-0.9	-2.8	-0.7	-0.4	8.2	-0.2	0.2	-6.5	1.4	-4.8	2.0	-0.8
Alt 1c	Flow Change	-5.6	-0.9	-3.0	-0.6	-0.4	8.2	-0.2	0.7	-7.1	1.3	-4.8	2.1	-0.9
Alt 8a	Flow Change	-5.0	-0.8	-2.7	-0.8	-0.2	8.2	-0.2	0.2	-6.4	1.7	-4.7	2.1	-0.7
Alt 10a	Flow Change	-5.6	-0.8	-2.8	-0.5	-0.5	8.2	-0.2	0.1	-6.2	1.3	-4.9	2.1	-0.8
Alt 13a	Flow Change	-6.2	-0.6	-2.7	-0.2	-1.2	8.3	-0.2	0.1	-6.2	1.6	-4.5	1.9	-0.8
		Percent change in flow from Current Conditions												
Full Use	% Change	-5%	4%	4%	-1%	1%	11%	1%	0%	-2%	0%	-1%	1%	0%
No Act	% Change	-3%	3%	3%	-1%	0%	11%	1%	0%	-1%	0%	0%	1%	0%
Alt 1a	% Change	-5%	-1%	-4%	-1%	-1%	9%	0%	0%	-1%	0%	-2%	1%	0%
Alt 1c	% Change	-5%	-1%	-4%	-1%	-1%	9%	0%	0%	-1%	0%	-2%	1%	0%
Alt 8a	% Change	-4%	-1%	-4%	-1%	0%	9%	0%	0%	-1%	0%	-1%	1%	0%
Alt 10a	% Change	-5%	-1%	-4%	-1%	-1%	9%	0%	0%	-1%	0%	-2%	1%	0%
Alt 13a	% Change	-5%	-1%	-4%	0%	-2%	9%	0%	0%	-1%	0%	-1%	1%	0%

Table H-1.71. Cheesman Reservoir Outflow (cfs)

Flow Change and % Change are based on comparisons to Current Conditions		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		181.8	129.2	110.6	136.1	111.5	122.3	212.2	365.1	523.9	450.7	387.2	247.7	248.2
Full Use	Flow	178.9	141.8	119.9	141.2	121.0	128.7	220.5	372.6	502.7	429.9	383.7	248.9	249.1
No Act	Flow	180.6	145.4	122.4	142.5	122.8	128.8	220.1	377.2	499.4	427.3	379.7	249.0	249.6
Alt 1a	Flow	177.9	135.6	114.4	134.0	114.9	121.0	221.5	385.8	509.8	437.2	383.6	253.6	249.1
Alt 1c	Flow	178.0	135.7	114.2	134.1	114.9	121.3	221.7	385.6	509.9	437.3	383.5	253.6	249.1
Alt 8a	Flow	177.9	136.0	114.0	134.1	115.0	120.7	221.1	386.1	510.4	436.8	383.9	253.7	249.1
Alt 10a	Flow	177.8	136.1	113.9	134.2	115.0	120.8	221.0	385.9	510.4	437.0	383.7	253.4	249.1
Alt 13a	Flow	177.9	135.9	114.2	134.1	114.9	120.9	220.8	385.2	510.9	436.1	383.2	253.8	249.0
		Flow change from Current Conditions												
Full Use	Flow Change	-2.9	12.6	9.2	5.1	9.5	6.4	8.4	7.5	-21.3	-20.9	-3.5	1.2	1.0
No Act	Flow Change	-1.2	16.2	11.7	6.4	11.3	6.5	8.0	12.1	-24.5	-23.4	-7.5	1.3	1.4
Alt 1a	Flow Change	-3.9	6.4	3.7	-2.0	3.4	-1.2	9.4	20.7	-14.1	-13.5	-3.6	5.9	0.9
Alt 1c	Flow Change	-3.8	6.5	3.6	-2.0	3.4	-1.0	9.5	20.5	-14.1	-13.4	-3.7	6.0	1.0
Alt 8a	Flow Change	-3.9	6.8	3.3	-2.0	3.5	-1.6	9.0	21.0	-13.5	-13.9	-3.3	6.0	1.0
Alt 10a	Flow Change	-4.0	6.9	3.2	-1.9	3.5	-1.4	8.8	20.8	-13.5	-13.8	-3.5	5.8	0.9
Alt 13a	Flow Change	-3.9	6.7	3.6	-2.0	3.5	-1.4	8.7	20.1	-13.0	-14.7	-4.0	6.2	0.8
		Percent change in flow from Current Conditions												
Full Use	% Change	-2%	10%	8%	4%	9%	5%	4%	2%	-4%	-5%	-1%	0%	0%
No Act	% Change	-1%	13%	11%	5%	10%	5%	4%	3%	-5%	-5%	-2%	1%	1%
Alt 1a	% Change	-2%	5%	3%	-1%	3%	-1%	4%	6%	-3%	-3%	-1%	2%	0%
Alt 1c	% Change	-2%	5%	3%	-1%	3%	-1%	4%	6%	-3%	-3%	-1%	2%	0%
Alt 8a	% Change	-2%	5%	3%	-1%	3%	-1%	4%	6%	-3%	-3%	-1%	2%	0%
Alt 10a	% Change	-2%	5%	3%	-1%	3%	-1%	4%	6%	-3%	-3%	-1%	2%	0%
Alt 13a	% Change	-2%	5%	3%	-1%	3%	-1%	4%	6%	-2%	-3%	-1%	2%	0%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Current Conditions		158.8	123.9	115.8	136.6	108.9	128.6	187.1	222.3	285.5	314.4	287.5	261.2	194.2
Full Use	Flow	150.8	143.4	120.8	141.8	116.6	131.1	195.5	253.8	270.7	324.9	305.4	287.7	203.5
No Act	Flow	148.8	145.2	122.7	144.2	119.0	132.7	204.3	275.0	294.0	346.8	347.5	328.1	217.4
Alt 1a	Flow	144.7	139.3	115.2	136.3	111.9	128.9	195.4	250.4	276.0	343.9	332.8	309.9	207.0
Alt 1c	Flow	145.1	139.3	115.2	136.3	111.9	128.9	195.6	250.5	277.0	345.1	334.1	309.4	207.4
Alt 8a	Flow	143.9	139.3	115.2	135.9	111.9	129.0	196.5	250.0	276.8	344.4	332.0	310.6	207.1
Alt 10a	Flow	144.8	139.4	115.2	136.2	111.9	129.0	195.7	250.1	276.4	345.2	332.5	310.2	207.2
Alt 13a	Flow	147.7	139.0	115.2	136.3	111.6	128.8	195.4	250.1	276.7	344.1	331.5	308.0	207.0
		Flow change from Current Conditions												
Full Use	Flow Change	-8.1	19.5	5.1	5.2	7.7	2.4	8.4	31.5	-14.8	10.6	18.0	26.5	9.3
No Act	Flow Change	-10.0	21.3	7.0	7.6	10.1	4.1	17.3	52.6	8.5	32.5	60.1	66.9	23.2
Alt 1a	Flow Change	-14.1	15.4	-0.5	-0.3	3.0	0.3	8.3	28.1	-9.5	29.5	45.3	48.7	12.8
Alt 1c	Flow Change	-13.7	15.4	-0.5	-0.3	3.0	0.3	8.6	28.2	-8.5	30.7	46.6	48.2	13.2
Alt 8a	Flow Change	-15.0	15.5	-0.5	-0.6	3.0	0.4	9.4	27.6	-8.7	30.0	44.5	49.4	12.9
Alt 10a	Flow Change	-14.1	15.5	-0.6	-0.4	3.0	0.3	8.7	27.8	-9.0	30.8	45.1	49.0	13.0
Alt 13a	Flow Change	-11.1	15.2	-0.5	-0.3	2.7	0.2	8.4	27.7	-8.8	29.7	44.0	46.8	12.8
		Percent change in flow from Current Conditions												
Full Use	% Change	-5%	16%	4%	4%	7%	2%	4%	14%	-5%	3%	6%	10%	5%
No Act	% Change	-6%	17%	6%	6%	9%	3%	9%	24%	3%	10%	21%	26%	12%
Alt 1a	% Change	-9%	12%	0%	0%	3%	0%	4%	13%	-3%	9%	16%	19%	7%
Alt 1c	% Change	-9%	12%	0%	0%	3%	0%	5%	13%	-3%	10%	16%	18%	7%
Alt 8a	% Change	-9%	12%	0%	0%	3%	0%	5%	12%	-3%	10%	15%	19%	7%
Alt 10a	% Change	-9%	13%	-1%	0%	3%	0%	5%	13%	-3%	10%	16%	19%	7%
Alt 13a	% Change	-7%	12%	0%	0%	3%	0%	4%	12%	-3%	9%	15%	18%	7%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Current Conditions		217.7	130.3	110.2	136.8	109.3	128.5	409.0	789.9	1,192.6	869.3	598.8	290.3	415.2
Full Use	Flow	200.2	145.1	124.6	140.3	121.5	127.9	401.7	811.5	1,188.7	870.9	585.0	290.8	417.4
No Act	Flow	196.4	142.6	120.6	142.2	122.8	130.9	403.3	809.2	1,189.6	870.5	587.3	292.6	417.3
Alt 1a	Flow	194.4	140.4	118.1	140.0	118.3	120.3	405.7	816.4	1,190.7	872.7	582.6	292.9	416.0
Alt 1c	Flow	194.8	140.1	118.0	140.1	118.3	120.4	406.4	816.1	1,189.9	872.8	582.7	293.1	416.0
Alt 8a	Flow	195.0	140.5	118.1	139.9	118.7	120.1	405.9	816.3	1,190.7	873.3	582.4	293.1	416.2
Alt 10a	Flow	194.4	140.5	118.1	140.3	118.2	120.4	405.3	816.6	1,190.9	872.8	582.5	293.0	416.1
Alt 13a	Flow	193.3	140.6	118.2	141.5	117.9	121.1	403.5	816.5	1,191.0	872.5	582.7	293.0	416.0
		Flow change from Current Conditions												
Full Use	Flow Change	-17.5	14.8	14.4	3.5	12.2	-0.6	-7.3	21.6	-3.9	1.7	-13.8	0.5	2.1
No Act	Flow Change	-21.3	12.2	10.4	5.3	13.5	2.4	-5.7	19.3	-2.9	1.2	-11.5	2.3	2.1
Alt 1a	Flow Change	-23.3	10.0	7.9	3.1	9.0	-8.1	-3.3	26.5	-1.9	3.5	-16.2	2.7	0.8
Alt 1c	Flow Change	-23.0	9.7	7.8	3.3	9.0	-8.1	-2.6	26.2	-2.7	3.5	-16.1	2.8	0.8
Alt 8a	Flow Change	-22.7	10.1	7.9	3.1	9.5	-8.4	-3.1	26.4	-1.9	4.0	-16.4	2.9	1.0
Alt 10a	Flow Change	-23.3	10.2	7.9	3.5	8.9	-8.1	-3.7	26.7	-1.7	3.5	-16.3	2.7	0.8
Alt 13a	Flow Change	-24.4	10.3	8.0	4.7	8.6	-7.4	-5.5	26.6	-1.6	3.2	-16.0	2.7	0.8
		Percent change in flow from Current Conditions												
Full Use	% Change	-8%	11%	13%	3%	11%	0%	-2%	3%	0%	0%	-2%	0%	1%
No Act	% Change	-10%	9%	9%	4%	12%	2%	-1%	2%	0%	0%	-2%	1%	1%
Alt 1a	% Change	-11%	8%	7%	2%	8%	-6%	-1%	3%	0%	0%	-3%	1%	0%
Alt 1c	% Change	-11%	7%	7%	2%	8%	-6%	-1%	3%	0%	0%	-3%	1%	0%
Alt 8a	% Change	-10%	8%	7%	2%	9%	-7%	-1%	3%	0%	0%	-3%	1%	0%
Alt 10a	% Change	-11%	8%	7%	3%	8%	-6%	-1%	3%	0%	0%	-3%	1%	0%
Alt 13a	% Change	-11%	8%	7%	3%	8%	-6%	-1%	3%	0%	0%	-3%	1%	0%

Table H-1.72. South Platte River at Waterton Gage (cfs)

Flow Change and % Change are based on comparisons to Current Conditions														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		59.9	49.1	32.1	30.9	31.8	33.3	127.8	381.5	514.9	291.4	227.1	73.7	154.5
Full Use	Flow	57.1	47.3	31.6	30.9	31.7	31.5	108.2	357.7	477.2	247.5	171.6	71.7	138.7
No Act	Flow	54.9	45.8	31.4	30.9	31.7	31.1	102.4	349.0	456.7	239.1	159.5	68.4	133.4
Alt 1a	Flow	57.0	50.0	32.0	30.9	31.7	31.5	111.3	349.1	455.1	236.7	164.6	69.8	135.0
Alt 1c	Flow	57.1	50.0	32.0	30.9	31.7	31.5	111.0	348.8	454.9	236.4	163.2	69.8	134.8
Alt 8a	Flow	57.4	50.0	32.0	30.9	31.7	31.5	110.9	348.4	454.5	236.4	165.3	70.5	135.0
Alt 10a	Flow	57.1	50.1	32.0	30.9	31.7	31.5	110.8	348.6	454.8	236.7	165.0	70.3	135.0
Alt 13a	Flow	56.7	50.0	32.0	30.9	31.7	31.4	111.0	348.4	455.3	236.8	163.7	70.2	134.8
Flow change from Current Conditions														
Full Use	Flow Change	-2.9	-1.7	-0.5	0.0	0.0	-1.8	-19.6	-23.8	-37.6	-44.0	-55.4	-2.0	-15.8
No Act	Flow Change	-5.1	-3.3	-0.7	0.0	0.0	-2.2	-25.4	-32.6	-58.1	-52.3	-67.5	-5.2	-21.0
Alt 1a	Flow Change	-2.9	0.9	-0.1	0.0	0.0	-1.8	-16.5	-32.4	-59.8	-54.7	-62.4	-3.9	-19.5
Alt 1c	Flow Change	-2.9	0.9	-0.1	0.0	0.0	-1.7	-16.8	-32.8	-59.9	-55.1	-63.8	-3.9	-19.7
Alt 8a	Flow Change	-2.5	1.0	-0.1	0.0	0.0	-1.8	-16.9	-33.1	-60.3	-55.1	-61.8	-3.2	-19.5
Alt 10a	Flow Change	-2.8	1.0	-0.1	0.0	0.0	-1.8	-17.0	-32.9	-60.1	-54.8	-62.1	-3.4	-19.5
Alt 13a	Flow Change	-3.3	0.9	-0.1	0.0	0.0	-1.9	-16.8	-33.1	-59.6	-54.7	-63.4	-3.5	-19.6
Percent change in flow from Current Conditions														
Full Use	% Change	-5%	-4%	-2%	0%	0%	-6%	-15%	-6%	-7%	-15%	-24%	-3%	-10%
No Act	% Change	-8%	-7%	-2%	0%	0%	-6%	-20%	-9%	-11%	-18%	-30%	-7%	-14%
Alt 1a	% Change	-5%	2%	0%	0%	0%	-5%	-13%	-8%	-12%	-19%	-27%	-5%	-13%
Alt 1c	% Change	-5%	2%	0%	0%	0%	-5%	-13%	-9%	-12%	-19%	-28%	-5%	-13%
Alt 8a	% Change	-4%	2%	0%	0%	0%	-5%	-13%	-9%	-12%	-19%	-27%	-4%	-13%
Alt 10a	% Change	-5%	2%	0%	0%	0%	-5%	-13%	-9%	-12%	-19%	-27%	-5%	-13%
Alt 13a	% Change	-5%	2%	0%	0%	0%	-6%	-13%	-9%	-12%	-19%	-28%	-5%	-13%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Current Conditions		32.8	30.8	30.2	30.0	30.0	31.4	45.1	51.5	60.5	69.8	63.6	45.4	43.4
Full Use	Flow	30.2	34.8	30.0	30.0	30.0	30.4	30.0	49.4	61.2	62.0	60.2	45.2	41.1
No Act	Flow	30.2	31.1	30.0	30.0	30.0	30.4	30.1	48.5	60.5	61.9	60.2	45.2	40.7
Alt 1a	Flow	30.2	34.7	30.0	30.0	30.0	30.4	37.6	53.4	60.5	62.0	60.2	45.2	42.0
Alt 1c	Flow	30.2	34.7	30.0	30.0	30.0	30.4	37.4	53.4	60.5	62.0	60.2	45.2	42.0
Alt 8a	Flow	30.2	34.7	30.0	30.0	30.0	30.4	38.0	53.4	60.6	62.0	60.2	45.2	42.0
Alt 10a	Flow	30.2	34.7	30.0	30.0	30.0	30.4	37.6	53.4	60.5	62.0	60.2	45.2	42.0
Alt 13a	Flow	30.2	35.4	30.0	30.0	30.0	30.4	37.5	53.4	60.6	61.9	60.2	45.2	42.1
Flow change from Current Conditions														
Full Use	Flow Change	-2.7	4.0	-0.1	0.0	0.0	-1.0	-15.1	-2.1	0.7	-7.8	-3.4	-0.2	-2.3
No Act	Flow Change	-2.7	0.4	-0.1	0.0	0.0	-1.0	-15.0	-3.0	0.0	-8.0	-3.4	-0.2	-2.8
Alt 1a	Flow Change	-2.7	3.9	-0.1	0.0	0.0	-1.0	-7.5	1.8	0.0	-7.9	-3.4	-0.1	-1.4
Alt 1c	Flow Change	-2.7	3.9	-0.1	0.0	0.0	-1.0	-7.7	1.8	0.0	-7.9	-3.4	-0.1	-1.4
Alt 8a	Flow Change	-2.7	3.9	-0.1	0.0	0.0	-1.0	-7.2	1.8	0.0	-7.9	-3.4	-0.2	-1.4
Alt 10a	Flow Change	-2.7	3.9	-0.1	0.0	0.0	-1.0	-7.5	1.8	0.0	-7.9	-3.4	-0.2	-1.4
Alt 13a	Flow Change	-2.7	4.6	-0.1	0.0	0.0	-1.0	-7.6	1.8	0.0	-7.9	-3.4	-0.2	-1.4
Percent change in flow from Current Conditions														
Full Use	% Change	-8%	13%	0%	0%	0%	-3%	-33%	-4%	1%	-11%	-5%	0%	-5%
No Act	% Change	-8%	1%	0%	0%	0%	-3%	-33%	-6%	0%	-11%	-5%	0%	-6%
Alt 1a	% Change	-8%	13%	0%	0%	0%	-3%	-17%	4%	0%	-11%	-5%	0%	-3%
Alt 1c	% Change	-8%	13%	0%	0%	0%	-3%	-17%	4%	0%	-11%	-5%	0%	-3%
Alt 8a	% Change	-8%	13%	0%	0%	0%	-3%	-16%	4%	0%	-11%	-5%	0%	-3%
Alt 10a	% Change	-8%	13%	0%	0%	0%	-3%	-17%	4%	0%	-11%	-5%	0%	-3%
Alt 13a	% Change	-8%	15%	0%	0%	0%	-3%	-17%	4%	0%	-11%	-5%	0%	-3%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Current Conditions		111.1	70.4	33.6	32.9	33.1	34.1	467.5	1,308.0	1,623.8	787.8	437.6	128.1	422.3
Full Use	Flow	101.1	66.8	32.7	32.9	33.1	32.7	404.1	1,281.0	1,563.9	737.6	400.1	120.9	400.6
No Act	Flow	98.4	61.2	32.6	32.9	33.1	32.7	395.8	1,268.5	1,553.9	721.2	373.3	118.9	393.5
Alt 1a	Flow	103.6	72.2	32.9	33.0	33.1	32.7	400.4	1,266.0	1,550.1	713.9	394.3	118.8	395.9
Alt 1c	Flow	103.5	72.2	32.9	33.0	33.1	32.7	400.0	1,265.4	1,549.7	713.6	391.5	118.3	395.5
Alt 8a	Flow	104.8	72.6	33.0	33.0	33.1	32.7	400.1	1,266.2	1,549.4	712.8	395.9	118.9	396.0
Alt 10a	Flow	104.0	72.8	32.9	33.0	33.1	32.7	400.5	1,266.5	1,550.2	714.5	394.1	119.2	396.1
Alt 13a	Flow	103.3	72.1	33.0	32.9	33.1	32.7	400.4	1,266.7	1,549.8	713.2	393.4	120.0	395.9
Flow change from Current Conditions														
Full Use	Flow Change	-10.0	-3.6	-0.9	0.0	0.0	-1.4	-63.4	-27.0	-59.8	-50.2	-37.5	-7.1	-21.7
No Act	Flow Change	-12.6	-9.2	-1.0	0.0	0.0	-1.4	-71.7	-39.5	-69.9	-66.5	-64.2	-9.2	-28.8
Alt 1a	Flow Change	-7.5	1.8	-0.6	0.0	0.0	-1.4	-67.1	-41.9	-73.7	-73.9	-43.2	-9.2	-26.4
Alt 1c	Flow Change	-7.5	1.8	-0.7	0.0	0.0	-1.4	-67.6	-42.5	-74.1	-74.1	-46.1	-9.8	-26.8
Alt 8a	Flow Change	-6.2	2.2	-0.6	0.0	0.0	-1.4	-67.5	-41.7	-74.3	-75.0	-41.6	-9.2	-26.3
Alt 10a	Flow Change	-7.1	2.4	-0.7	0.0	0.0	-1.4	-67.1	-41.4	-73.6	-73.3	-43.4	-8.8	-26.2
Alt 13a	Flow Change	-7.8	1.7	-0.6	0.0	0.0	-1.4	-67.2	-41.3	-74.0	-74.6	-44.2	-8.1	-26.5
Percent change in flow from Current Conditions														
Full Use	% Change	-9%	-5%	-3%	0%	0%	-4%	-14%	-2%	-4%	-6%	-9%	-6%	-5%
No Act	% Change	-11%	-13%	-3%	0%	0%	-4%	-15%	-3%	-4%	-8%	-15%	-7%	-7%
Alt 1a	% Change	-7%	3%	-2%	0%	0%	-4%	-14%	-3%	-5%	-9%	-10%	-7%	-6%
Alt 1c	% Change	-7%	3%	-2%	0%	0%	-4%	-14%	-3%	-5%	-9%	-11%	-8%	-6%
Alt 8a	% Change	-6%	3%	-2%	0%	0%	-4%	-14%	-3%	-5%	-10%	-10%	-7%	-6%
Alt 10a	% Change	-6%	3%	-2%	0%	0%	-4%	-14%	-3%	-5%	-9%	-10%	-7%	-6%
Alt 13a	% Change	-7%	2%	-2%	0%	0%	-4%	-14%	-3%	-5%	-9%	-10%	-6%	-6%

Table H-1.73. South Platte River below Chatfield Reservoir (cfs)

Flow Change and % Change are based on comparisons to Current Conditions		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		77.6	42.0	18.6	12.3	18.5	38.8	177.9	496.7	560.5	292.9	216.0	64.5	168.0
Full Use	Flow	73.3	39.2	17.1	10.6	16.1	34.0	166.0	475.6	518.8	241.0	154.1	57.2	150.3
No Act	Flow	71.2	38.5	15.7	10.3	15.0	32.4	158.5	466.4	503.2	231.9	139.6	51.5	144.5
Alt 1a	Flow	72.3	44.3	20.7	13.4	18.2	35.8	167.3	462.8	504.1	228.0	144.4	53.0	147.0
Alt 1c	Flow	72.3	44.2	20.6	13.3	18.3	36.0	166.9	462.5	504.1	227.5	143.4	52.7	146.8
Alt 8a	Flow	73.0	44.0	20.6	13.1	18.0	35.6	166.9	461.9	504.1	227.9	145.0	53.4	147.0
Alt 10a	Flow	72.5	44.1	20.7	13.2	18.0	35.6	166.9	462.2	504.1	228.0	145.0	53.3	147.0
Alt 13a	Flow	71.8	44.5	20.7	13.5	18.0	35.5	167.4	462.0	505.0	227.7	143.0	53.2	146.8
		Flow change from Current Conditions												
Full Use	Flow Change	-4.4	-2.7	-1.5	-1.7	-2.5	-4.8	-11.8	-21.1	-41.7	-51.9	-61.9	-7.3	-17.8
No Act	Flow Change	-6.4	-3.5	-3.0	-2.0	-3.5	-6.4	-19.3	-30.4	-57.3	-61.0	-76.4	-12.9	-23.5
Alt 1a	Flow Change	-5.3	2.4	2.1	1.2	-0.3	-3.0	-10.5	-33.9	-56.4	-64.9	-71.6	-11.4	-21.0
Alt 1c	Flow Change	-5.3	2.3	1.9	1.0	-0.3	-2.7	-11.0	-34.3	-56.4	-65.4	-72.6	-11.7	-21.2
Alt 8a	Flow Change	-4.7	2.0	2.0	0.8	-0.6	-3.2	-10.9	-34.8	-56.4	-65.0	-70.9	-11.1	-21.1
Alt 10a	Flow Change	-5.2	2.1	2.0	0.9	-0.5	-3.1	-10.9	-34.6	-56.4	-65.0	-71.0	-11.2	-21.1
Alt 13a	Flow Change	-5.9	2.5	2.0	1.2	-0.5	-3.3	-10.5	-34.8	-55.5	-65.2	-73.0	-11.3	-21.2
		Percent change in flow from Current Conditions												
Full Use	% Change	-6%	-7%	-8%	-14%	-13%	-12%	-7%	-4%	-7%	-18%	-29%	-11%	-11%
No Act	% Change	-8%	-8%	-16%	-16%	-19%	-16%	-11%	-6%	-10%	-21%	-35%	-20%	-14%
Alt 1a	% Change	-7%	6%	11%	10%	-2%	-8%	-6%	-7%	-10%	-22%	-33%	-18%	-12%
Alt 1c	% Change	-7%	5%	10%	8%	-1%	-7%	-6%	-7%	-10%	-22%	-34%	-18%	-13%
Alt 8a	% Change	-6%	5%	11%	7%	-3%	-8%	-6%	-7%	-10%	-22%	-33%	-17%	-13%
Alt 10a	% Change	-7%	5%	11%	7%	-3%	-8%	-6%	-7%	-10%	-22%	-33%	-17%	-13%
Alt 13a	% Change	-8%	6%	11%	10%	-3%	-9%	-6%	-7%	-10%	-22%	-34%	-18%	-13%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Current Conditions		39.4	17.5	20.6	8.6	19.6	38.8	44.4	38.3	39.3	37.9	41.8	24.2	30.9
Full Use	Flow	38.6	25.1	19.3	8.3	18.6	33.0	44.7	44.7	35.2	24.5	20.4	20.9	27.8
No Act	Flow	36.2	23.4	16.7	7.7	17.8	32.8	45.1	37.8	27.4	22.7	21.1	21.2	25.8
Alt 1a	Flow	38.3	31.1	19.9	10.8	21.0	33.8	57.2	38.1	31.4	21.9	20.5	21.8	28.8
Alt 1c	Flow	38.4	31.1	19.9	10.8	21.0	33.9	57.2	38.1	31.4	21.9	20.4	21.7	28.8
Alt 8a	Flow	38.5	31.0	19.9	10.7	21.0	34.0	57.4	38.1	31.6	21.8	20.4	20.8	28.8
Alt 10a	Flow	38.4	31.0	19.9	10.8	21.0	33.9	57.1	38.0	31.4	21.8	20.4	20.9	28.7
Alt 13a	Flow	39.9	30.0	20.6	10.8	21.2	33.0	57.5	37.8	32.0	21.6	20.3	20.8	28.8
		Flow change from Current Conditions												
Full Use	Flow Change	-0.8	7.6	-1.3	-0.3	-1.0	-5.9	0.4	6.3	-4.1	-13.5	-21.4	-3.3	-3.1
No Act	Flow Change	-3.2	5.9	-3.9	-0.8	-1.8	-6.0	0.8	-0.5	-11.9	-15.3	-20.7	-3.0	-5.1
Alt 1a	Flow Change	-1.1	13.6	-0.7	2.2	1.4	-5.0	12.9	-0.3	-7.9	-16.1	-21.3	-2.4	-2.1
Alt 1c	Flow Change	-1.1	13.6	-0.7	2.2	1.4	-5.0	12.8	-0.3	-7.9	-16.1	-21.4	-2.4	-2.1
Alt 8a	Flow Change	-1.0	13.5	-0.7	2.1	1.4	-4.8	13.1	-0.2	-7.7	-16.1	-21.3	-3.3	-2.1
Alt 10a	Flow Change	-1.0	13.5	-0.7	2.2	1.4	-4.9	12.8	-0.3	-7.9	-16.1	-21.4	-3.3	-2.1
Alt 13a	Flow Change	0.5	12.5	-0.1	2.2	1.6	-5.8	13.2	-0.5	-7.3	-16.3	-21.4	-3.4	-2.1
		Percent change in flow from Current Conditions												
Full Use	% Change	-2%	43%	-7%	-4%	-5%	-15%	1%	17%	-10%	-36%	-51%	-13%	-10%
No Act	% Change	-8%	34%	-19%	-10%	-9%	-16%	2%	-1%	-30%	-40%	-50%	-13%	-16%
Alt 1a	% Change	-3%	77%	-4%	26%	7%	-13%	29%	-1%	-20%	-42%	-51%	-10%	-7%
Alt 1c	% Change	-3%	78%	-4%	26%	7%	-13%	29%	-1%	-20%	-42%	-51%	-10%	-7%
Alt 8a	% Change	-2%	77%	-4%	24%	7%	-12%	30%	-1%	-19%	-43%	-51%	-14%	-7%
Alt 10a	% Change	-3%	77%	-3%	26%	7%	-13%	29%	-1%	-20%	-43%	-51%	-14%	-7%
Alt 13a	% Change	1%	71%	0%	25%	8%	-15%	30%	-1%	-18%	-43%	-51%	-14%	-7%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Current Conditions		120.5	66.4	36.1	28.2	41.5	68.6	569.2	1,691.6	1,878.2	859.7	489.2	127.5	498.1
Full Use	Flow	115.0	49.4	33.2	29.8	37.1	76.3	520.1	1,666.6	1,808.5	799.5	440.4	118.5	474.5
No Act	Flow	113.6	49.4	27.7	30.1	37.9	76.7	514.8	1,653.5	1,801.1	784.0	413.9	110.4	467.7
Alt 1a	Flow	109.9	58.5	42.3	31.0	35.3	76.2	515.4	1,653.4	1,796.5	775.8	430.3	110.5	469.6
Alt 1c	Flow	109.9	57.6	42.2	31.0	35.6	76.7	514.5	1,652.2	1,797.1	775.5	427.5	109.5	469.1
Alt 8a	Flow	113.1	57.1	42.5	31.0	35.3	76.3	514.7	1,653.2	1,796.4	776.4	430.2	110.5	469.7
Alt 10a	Flow	110.7	58.9	42.5	31.1	35.3	76.3	515.3	1,652.7	1,797.2	776.2	430.4	110.8	469.8
Alt 13a	Flow	108.1	60.4	42.1	31.0	35.2	75.9	515.5	1,654.1	1,796.1	774.3	428.9	110.9	469.4
		Flow change from Current Conditions												
Full Use	Flow Change	-5.5	-17.0	-2.9	1.6	-4.4	7.7	-49.1	-25.1	-69.7	-60.2	-48.8	-9.1	-23.5
No Act	Flow Change	-6.9	-17.1	-8.5	1.9	-3.6	8.1	-54.4	-38.2	-77.1	-75.7	-75.4	-17.1	-30.3
Alt 1a	Flow Change	-10.6	-7.9	6.2	2.8	-6.2	7.6	-53.8	-38.2	-81.8	-83.8	-58.9	-17.1	-28.5
Alt 1c	Flow Change	-10.6	-8.9	6.1	2.8	-5.9	8.1	-54.6	-39.5	-81.1	-84.2	-61.7	-18.0	-29.0
Alt 8a	Flow Change	-7.4	-9.3	6.3	2.8	-6.2	7.6	-54.4	-38.4	-81.9	-83.3	-59.0	-17.1	-28.4
Alt 10a	Flow Change	-9.8	-7.5	6.4	2.9	-6.2	7.7	-53.8	-38.9	-81.1	-83.5	-58.8	-16.8	-28.3
Alt 13a	Flow Change	-12.4	-6.0	6.0	2.8	-6.3	7.3	-53.7	-37.5	-82.2	-85.4	-60.4	-16.7	-28.7
		Percent change in flow from Current Conditions												
Full Use	% Change	-5%	-26%	-8%	6%	-11%	11%	-9%	-1%	-4%	-7%	-10%	-7%	-5%
No Act	% Change	-6%	-26%	-23%	7%	-9%	12%	-10%	-2%	-4%	-9%	-15%	-13%	-6%
Alt 1a	% Change	-9%	-12%	17%	10%	-15%	11%	-9%	-2%	-4%	-10%	-12%	-13%	-6%
Alt 1c	% Change	-9%	-13%	17%	10%	-14%	12%	-10%	-2%	-4%	-10%	-13%	-14%	-6%
Alt 8a	% Change	-6%	-14%	18%	10%	-15%	11%	-10%	-2%	-4%	-10%	-12%	-13%	-6%
Alt 10a	% Change	-8%	-11%	18%	10%	-15%	11%	-9%	-2%	-4%	-10%	-12%	-13%	-6%
Alt 13a	% Change	-10%	-9%	17%	10%	-15%	11%	-9%	-2%	-4%	-10%	-12%	-13%	-6%

Table H-1.74. South Platte River at Denver Gage (cfs)

Flow Change and % Change are based on comparisons to Current Conditions		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		190.8	142.3	107.9	96.2	111.6	154.4	333.3	862.7	831.2	473.3	394.2	204.7	325.2
Full Use	Flow	195.7	152.5	116.5	101.8	116.8	157.1	326.7	846.6	796.3	430.6	341.4	205.8	315.6
No Act	Flow	195.0	151.6	115.3	102.5	118.0	156.7	320.2	836.6	782.5	424.2	329.7	201.8	311.2
Alt 1a	Flow	196.1	159.3	123.0	109.0	121.1	160.8	330.3	834.5	783.1	420.5	333.7	202.7	314.5
Alt 1c	Flow	196.1	159.3	122.8	108.9	121.2	161.0	330.1	834.2	783.3	420.0	332.8	202.3	314.3
Alt 8a	Flow	196.7	159.1	122.8	108.5	121.0	160.6	329.9	833.4	783.3	420.4	334.3	203.1	314.4
Alt 10a	Flow	196.2	159.1	122.9	108.7	121.1	160.6	330.0	833.7	783.3	420.4	334.2	203.0	314.4
Alt 13a	Flow	195.6	159.9	122.9	108.9	120.9	160.4	330.4	833.5	784.2	420.1	332.2	202.8	314.3
		Flow change from Current Conditions												
Full Use	Flow Change	4.9	10.2	8.5	5.6	5.2	2.6	-6.6	-16.2	-34.9	-42.7	-52.8	1.1	-9.6
No Act	Flow Change	4.1	9.3	7.4	6.2	6.4	2.3	-13.1	-26.2	-48.7	-49.0	-64.5	-2.9	-14.1
Alt 1a	Flow Change	5.3	17.1	15.0	12.8	9.5	6.4	-3.0	-28.3	-48.1	-52.7	-60.5	-2.0	-10.7
Alt 1c	Flow Change	5.2	17.0	14.9	12.6	9.6	6.6	-3.2	-28.6	-47.9	-53.3	-61.5	-2.4	-10.9
Alt 8a	Flow Change	5.9	16.8	14.9	12.3	9.4	6.1	-3.4	-29.3	-47.9	-52.9	-60.0	-1.6	-10.8
Alt 10a	Flow Change	5.4	16.9	14.9	12.5	9.4	6.2	-3.3	-29.1	-47.9	-52.8	-60.1	-1.7	-10.8
Alt 13a	Flow Change	4.8	17.6	15.0	12.7	9.3	6.0	-2.9	-29.3	-47.0	-53.2	-62.0	-1.9	-10.9
		Percent change in flow from Current Conditions												
Full Use	% Change	3%	7%	8%	6%	5%	2%	-2%	-2%	-4%	-9%	-13%	1%	-3%
No Act	% Change	2%	7%	7%	6%	6%	1%	-4%	-3%	-6%	-10%	-16%	-1%	-4%
Alt 1a	% Change	3%	12%	14%	13%	8%	4%	-1%	-3%	-6%	-11%	-15%	-1%	-3%
Alt 1c	% Change	3%	12%	14%	13%	9%	4%	-1%	-3%	-6%	-11%	-16%	-1%	-3%
Alt 8a	% Change	3%	12%	14%	13%	8%	4%	-1%	-3%	-6%	-11%	-15%	-1%	-3%
Alt 10a	% Change	3%	12%	14%	13%	8%	4%	-1%	-3%	-6%	-11%	-15%	-1%	-3%
Alt 13a	% Change	3%	12%	14%	13%	8%	4%	-1%	-3%	-6%	-11%	-16%	-1%	-3%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Current Conditions		123.1	90.1	88.8	72.9	87.6	117.7	131.5	176.0	192.8	138.8	152.1	127.4	124.9
Full Use	Flow	132.9	118.3	102.4	80.5	94.4	120.9	140.4	190.8	197.0	136.3	140.1	132.5	132.2
No Act	Flow	132.2	117.2	101.2	82.5	96.1	122.4	142.7	185.2	191.2	135.3	142.3	132.6	131.7
Alt 1a	Flow	134.2	126.4	106.7	88.5	99.6	122.5	154.0	184.6	195.2	134.9	141.8	132.7	135.1
Alt 1c	Flow	134.2	126.5	106.6	88.5	99.7	122.6	154.1	184.6	195.2	134.8	141.7	132.8	135.1
Alt 8a	Flow	134.4	126.5	106.7	88.0	99.7	122.7	154.3	184.8	195.2	134.8	141.5	131.5	135.0
Alt 10a	Flow	134.3	126.5	106.7	88.5	99.6	122.6	154.0	184.6	195.0	134.8	141.5	131.4	135.0
Alt 13a	Flow	135.9	125.4	107.2	88.5	99.9	121.8	154.4	184.3	196.0	134.4	141.6	131.2	135.1
		Flow change from Current Conditions												
Full Use	Flow Change	9.8	28.1	13.6	7.7	6.9	3.2	8.8	14.8	4.2	-2.5	-12.0	5.1	7.3
No Act	Flow Change	9.1	27.0	12.4	9.7	8.5	4.7	11.1	9.2	-1.6	-3.6	-9.8	5.2	6.8
Alt 1a	Flow Change	11.1	36.3	17.8	15.6	12.0	4.8	22.5	8.6	2.4	-4.0	-10.3	5.3	10.2
Alt 1c	Flow Change	11.1	36.3	17.8	15.6	12.1	4.9	22.6	8.6	2.4	-4.0	-10.4	5.4	10.2
Alt 8a	Flow Change	11.2	36.4	17.8	15.1	12.1	5.0	22.7	8.8	2.4	-4.0	-10.6	4.1	10.1
Alt 10a	Flow Change	11.2	36.4	17.9	15.6	12.0	5.0	22.5	8.6	2.2	-4.0	-10.6	4.0	10.1
Alt 13a	Flow Change	12.8	35.3	18.4	15.6	12.3	4.2	22.9	8.3	3.2	-4.5	-10.5	3.8	10.2
		Percent change in flow from Current Conditions												
Full Use	% Change	8%	31%	15%	11%	8%	3%	7%	8%	2%	-2%	-8%	4%	6%
No Act	% Change	7%	30%	14%	13%	10%	4%	8%	5%	-1%	-3%	-6%	4%	5%
Alt 1a	% Change	9%	40%	20%	21%	14%	4%	17%	5%	1%	-3%	-7%	4%	8%
Alt 1c	% Change	9%	40%	20%	21%	14%	4%	17%	5%	1%	-3%	-7%	4%	8%
Alt 8a	% Change	9%	40%	20%	21%	14%	4%	17%	5%	1%	-3%	-7%	3%	8%
Alt 10a	% Change	9%	40%	20%	21%	14%	4%	17%	5%	1%	-3%	-7%	3%	8%
Alt 13a	% Change	10%	39%	21%	21%	14%	4%	17%	5%	2%	-3%	-7%	3%	8%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Current Conditions		263.7	200.6	143.7	124.4	156.9	231.3	916.0	2,486.0	2,456.3	1,170.6	732.2	303.4	765.4
Full Use	Flow	268.6	200.8	150.1	133.4	161.0	242.8	868.4	2,465.9	2,394.7	1,119.4	690.9	307.4	750.3
No Act	Flow	268.8	201.4	145.3	136.0	164.1	245.7	863.5	2,451.5	2,388.7	1,106.2	672.0	301.7	745.4
Alt 1a	Flow	265.4	211.2	162.7	139.8	160.4	244.4	866.5	2,452.4	2,383.1	1,097.7	686.8	301.9	747.7
Alt 1c	Flow	265.4	210.2	162.5	139.9	160.6	244.9	865.8	2,451.1	2,383.9	1,097.3	684.1	300.9	747.2
Alt 8a	Flow	268.7	209.9	162.8	139.6	160.5	244.3	866.5	2,451.9	2,383.1	1,098.1	686.8	301.9	747.8
Alt 10a	Flow	266.2	211.6	162.9	139.8	160.6	244.4	866.5	2,451.5	2,383.9	1,098.1	686.8	302.2	747.9
Alt 13a	Flow	263.5	213.1	162.5	139.8	160.5	244.0	866.3	2,453.2	2,382.5	1,096.1	685.5	302.5	747.5
		Flow change from Current Conditions												
Full Use	Flow Change	4.9	0.1	6.4	8.9	4.1	11.6	-47.6	-20.1	-61.6	-51.2	-41.3	3.9	-15.2
No Act	Flow Change	5.1	0.8	1.6	11.6	7.2	14.4	-52.5	-34.5	-67.6	-64.4	-60.3	-1.7	-20.0
Alt 1a	Flow Change	1.7	10.6	18.9	15.4	3.5	13.1	-49.5	-33.6	-73.2	-72.9	-45.4	-1.6	-17.7
Alt 1c	Flow Change	1.7	9.6	18.8	15.4	3.7	13.6	-50.2	-34.8	-72.5	-73.3	-48.2	-2.5	-18.2
Alt 8a	Flow Change	5.0	9.3	19.1	15.2	3.6	13.0	-49.5	-34.0	-73.2	-72.5	-45.5	-1.6	-17.6
Alt 10a	Flow Change	2.5	11.0	19.2	15.3	3.7	13.1	-49.5	-34.5	-72.4	-72.5	-45.4	-1.2	-17.6
Alt 13a	Flow Change	-0.2	12.5	18.8	15.4	3.6	12.7	-49.7	-32.8	-73.8	-74.5	-46.8	-1.0	-18.0
		Percent change in flow from Current Conditions												
Full Use	% Change	2%	0%	4%	7%	3%	5%	-5%	-1%	-3%	-4%	-6%	1%	-2%
No Act	% Change	2%	0%	1%	9%	5%	6%	-6%	-1%	-3%	-6%	-8%	-1%	-3%
Alt 1a	% Change	1%	5%	13%	12%	2%	6%	-5%	-1%	-3%	-6%	-6%	-1%	-2%
Alt 1c	% Change	1%	5%	13%	12%	2%	6%	-5%	-1%	-3%	-6%	-7%	-1%	-2%
Alt 8a	% Change	2%	5%	13%	12%	2%	6%	-5%	-1%	-3%	-6%	-6%	-1%	-2%
Alt 10a	% Change	1%	5%	13%	12%	2%	6%	-5%	-1%	-3%	-6%	-6%	0%	-2%
Alt 13a	% Change	0%	6%	13%	12%	2%	6%	-5%	-1%	-3%	-6%	-6%	0%	-2%

Table H-1.75. South Platte River at Henderson Gage (cfs)

Flow Change and % Change are based on comparisons to Current Conditions		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Current Conditions		149.6	242.0	155.4	239.1	243.5	277.1	301.9	853.9	966.2	645.9	438.7	217.0	394.2
Full Use	Flow	152.0	246.9	146.5	242.4	238.6	263.7	242.3	812.7	949.6	658.5	446.7	219.8	385.0
No Act	Flow	155.0	250.5	148.0	249.4	247.2	276.1	248.3	809.3	939.8	660.5	448.0	219.7	387.6
Alt 1a	Flow	160.5	265.6	159.5	262.8	248.8	282.9	246.3	804.0	938.2	655.7	447.2	219.0	390.9
Alt 1c	Flow	160.4	265.5	159.5	262.9	249.0	282.7	246.2	803.4	938.9	655.3	446.4	218.9	390.8
Alt 8a	Flow	158.9	262.4	156.7	257.8	246.8	278.5	242.3	802.7	938.4	654.3	447.2	218.4	388.7
Alt 10a	Flow	159.6	263.6	158.4	260.0	246.8	280.5	243.4	803.3	939.0	654.7	447.0	218.4	389.5
Alt 13a	Flow	162.4	266.1	160.6	263.8	248.3	284.0	247.6	805.1	944.2	659.6	451.6	220.4	392.8
		Flow change from Current Conditions												
Full Use	Flow Change	2.4	5.0	-8.8	3.2	-4.9	-13.4	-59.7	-41.2	-16.6	12.6	8.0	2.8	-9.2
No Act	Flow Change	5.4	8.5	-7.4	10.2	3.7	-1.0	-53.7	-44.5	-26.3	14.6	9.2	2.7	-6.6
Alt 1a	Flow Change	11.0	23.7	4.2	23.7	5.3	5.7	-55.6	-49.9	-28.0	9.8	8.4	2.0	-3.3
Alt 1c	Flow Change	10.8	23.5	4.1	23.8	5.5	5.6	-55.7	-50.4	-27.2	9.4	7.7	1.9	-3.4
Alt 8a	Flow Change	9.3	20.4	1.3	18.7	3.4	1.3	-59.6	-51.2	-27.8	8.4	8.5	1.4	-5.5
Alt 10a	Flow Change	10.0	21.6	3.0	20.9	3.3	3.4	-58.5	-50.6	-27.2	8.8	8.3	1.4	-4.6
Alt 13a	Flow Change	12.9	24.1	5.2	24.7	4.8	6.9	-54.3	-48.8	-22.0	13.7	12.8	3.4	-1.4
		Percent change in flow from Current Conditions												
Full Use	% Change	2%	2%	-6%	1%	-2%	-5%	-20%	-5%	-2%	2%	2%	1%	-2%
No Act	% Change	4%	4%	-5%	4%	2%	0%	-18%	-5%	-3%	2%	2%	1%	-2%
Alt 1a	% Change	7%	10%	3%	10%	2%	2%	-18%	-6%	-3%	2%	2%	1%	-1%
Alt 1c	% Change	7%	10%	3%	10%	2%	2%	-18%	-6%	-3%	1%	2%	1%	-1%
Alt 8a	% Change	6%	8%	1%	8%	1%	0%	-20%	-6%	-3%	1%	2%	1%	-1%
Alt 10a	% Change	7%	9%	2%	9%	1%	1%	-19%	-6%	-3%	1%	2%	1%	-1%
Alt 13a	% Change	9%	10%	3%	10%	2%	2%	-18%	-6%	-2%	2%	3%	2%	0%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Current Conditions		69.3	182.4	67.2	188.8	196.5	159.4	97.9	238.2	327.3	266.3	207.4	152.7	179.4
Full Use	Flow	67.6	180.6	61.3	188.7	203.4	161.3	104.7	239.8	328.4	284.3	224.4	157.4	183.5
No Act	Flow	71.9	182.5	65.3	199.1	216.2	161.3	106.7	242.2	329.8	287.0	231.8	159.4	187.8
Alt 1a	Flow	75.5	195.6	71.7	206.9	203.0	167.4	106.7	238.4	324.9	284.2	227.3	161.3	188.6
Alt 1c	Flow	74.8	195.8	72.5	206.9	203.6	167.6	106.7	238.5	324.9	284.2	227.3	161.2	188.7
Alt 8a	Flow	73.7	192.1	64.0	201.1	203.1	166.9	106.2	238.2	323.8	279.7	224.9	158.4	186.0
Alt 10a	Flow	76.2	195.0	68.2	205.2	200.4	167.0	106.7	238.5	324.3	280.5	225.1	158.7	187.1
Alt 13a	Flow	79.7	195.5	72.0	206.7	204.0	168.4	106.8	239.7	330.0	286.8	229.4	160.3	189.9
		Flow change from Current Conditions												
Full Use	Flow Change	-1.7	-1.8	-5.9	-0.1	6.9	1.9	6.8	1.6	1.1	18.0	17.0	4.7	4.0
No Act	Flow Change	2.6	0.1	-1.9	10.3	19.7	1.9	8.8	4.1	2.5	20.7	24.5	6.7	8.3
Alt 1a	Flow Change	6.2	13.2	4.5	18.1	6.6	8.0	8.8	0.3	-2.4	17.9	19.9	8.6	9.1
Alt 1c	Flow Change	5.5	13.4	5.2	18.1	7.1	8.2	8.8	0.3	-2.4	17.9	19.9	8.5	9.2
Alt 8a	Flow Change	4.4	9.7	-3.2	12.3	6.7	7.5	8.3	0.0	-3.5	13.4	17.5	5.7	6.6
Alt 10a	Flow Change	6.9	12.6	1.0	16.4	3.9	7.6	8.9	0.3	-3.0	14.2	17.7	6.0	7.7
Alt 13a	Flow Change	10.4	13.1	4.8	17.9	7.5	9.0	8.9	1.6	2.7	20.5	22.0	7.6	10.5
		Percent change in flow from Current Conditions												
Full Use	% Change	-2%	-1%	-9%	0%	4%	1%	7%	1%	0%	7%	8%	3%	2%
No Act	% Change	4%	0%	-3%	5%	10%	1%	9%	2%	1%	8%	12%	4%	5%
Alt 1a	% Change	9%	7%	7%	10%	3%	5%	9%	0%	-1%	7%	10%	6%	5%
Alt 1c	% Change	8%	7%	8%	10%	4%	5%	9%	0%	-1%	7%	10%	6%	5%
Alt 8a	% Change	6%	5%	-5%	7%	3%	5%	8%	0%	-1%	5%	8%	4%	4%
Alt 10a	% Change	10%	7%	1%	9%	2%	5%	9%	0%	-1%	5%	9%	4%	4%
Alt 13a	% Change	15%	7%	7%	9%	4%	6%	9%	1%	1%	8%	11%	5%	6%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Current Conditions		169.0	322.2	268.5	326.0	275.0	385.1	935.1	2,499.9	2,962.8	1,416.1	852.4	391.4	900.3
Full Use	Flow	173.3	331.2	261.7	326.5	273.9	381.9	721.8	2,479.4	2,902.2	1,459.0	860.8	385.8	879.8
No Act	Flow	178.7	334.8	263.5	329.7	282.9	411.5	757.1	2,469.6	2,899.2	1,459.5	866.6	384.3	886.4
Alt 1a	Flow	187.4	352.6	277.7	351.5	285.5	395.3	748.0	2,469.9	2,894.5	1,457.6	864.9	382.6	889.0
Alt 1c	Flow	187.1	352.6	277.9	351.7	286.0	395.4	748.8	2,468.3	2,896.0	1,457.5	863.3	382.9	889.0
Alt 8a	Flow	184.0	349.1	272.9	349.2	278.8	391.2	738.7	2,472.3	2,895.8	1,457.2	865.1	382.1	886.4
Alt 10a	Flow	186.2	351.0	274.4	350.8	279.1	393.0	742.6	2,473.2	2,894.7	1,457.0	864.9	381.8	887.4
Alt 13a	Flow	192.0	350.7	277.0	351.8	287.7	394.6	755.1	2,471.7	2,901.4	1,470.7	873.7	385.1	892.6
		Flow change from Current Conditions												
Full Use	Flow Change	4.2	9.0	-6.9	0.5	-1.1	-3.2	-213.3	-20.5	-60.6	42.9	8.3	-5.6	-20.5
No Act	Flow Change	9.7	12.6	-5.1	3.7	7.9	26.4	-177.9	-30.3	-63.6	43.4	14.1	-7.1	-13.8
Alt 1a	Flow Change	18.3	30.4	9.1	25.5	10.5	10.2	-187.1	-29.9	-68.2	41.6	12.5	-8.8	-11.3
Alt 1c	Flow Change	18.1	30.3	9.3	25.7	11.0	10.3	-186.3	-31.5	-66.7	41.5	10.9	-8.5	-11.3
Alt 8a	Flow Change	15.0	26.9	4.3	23.2	3.8	6.1	-196.4	-27.5	-67.0	41.1	12.6	-9.3	-13.9
Alt 10a	Flow Change	17.1	28.8	5.8	24.8	4.1	7.9	-192.5	-26.7	-68.0	41.0	12.4	-9.6	-12.9
Alt 13a	Flow Change	23.0	28.4	8.5	25.8	12.7	9.5	-179.9	-28.2	-61.3	54.7	21.2	-6.3	-7.7
		Percent change in flow from Current Conditions												
Full Use	% Change	3%	3%	-3%	0%	0%	-1%	-23%	-1%	-2%	3%	1%	-1%	-2%
No Act	% Change	6%	4%	-2%	1%	3%	7%	-19%	-1%	-2%	3%	2%	-2%	-2%
Alt 1a	% Change	11%	9%	3%	8%	4%	3%	-20%	-1%	-2%	3%	1%	-2%	-1%
Alt 1c	% Change	11%	9%	3%	8%	4%	3%	-20%	-1%	-2%	3%	1%	-2%	-1%
Alt 8a	% Change	9%	8%	2%	7%	1%	2%	-21%	-1%	-2%	3%	1%	-2%	-2%
Alt 10a	% Change	10%	9%	2%	8%	1%	2%	-21%	-1%	-2%	3%	1%	-2%	-1%
Alt 13a	% Change	14%	9%	3%	8%	5%	2%	-19%	-1%	-2%	4%	2%	-2%	-1%

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Appendix H-2
Reservoir Storage Changes

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Reservoir Storage Changes

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Table H-2.1. Williams Fork Reservoir End-of-Month Storage Content (AF)

Content Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		67,279	62,987	60,338	57,035	54,953	52,169	49,568	59,898	84,785	87,070	80,553	72,532	65,764
No Act	Content	67,343	63,115	60,428	56,970	54,950	51,838	49,245	59,776	85,095	87,336	80,710	72,488	65,775
Alt 1a	Content	66,632	62,488	59,877	56,469	54,492	51,389	48,789	58,901	83,913	86,513	79,877	71,745	65,090
Alt 1c	Content	66,571	62,424	59,794	56,378	54,401	51,297	48,697	58,810	83,867	86,469	79,831	71,676	65,018
Alt 8a	Content	66,838	62,665	60,061	56,666	54,689	51,587	48,988	59,100	84,118	86,634	80,061	71,940	65,279
Alt 10a	Content	66,849	62,676	60,072	56,676	54,700	51,598	48,999	59,111	84,134	86,642	80,062	71,942	65,288
Alt 13a	Content	66,827	62,686	60,081	56,687	54,710	51,623	49,023	59,426	84,265	86,723	80,061	71,939	65,338
Content change from Full Use Existing System														
No Act	Change	64	128	90	-65	-3	-331	-323	-123	309	266	158	-44	11
Alt 1a	Change	-647	-500	-461	-566	-461	-780	-779	-997	-872	-558	-676	-787	-674
Alt 1c	Change	-708	-564	-545	-657	-553	-872	-871	-1,088	-918	-601	-721	-856	-746
Alt 8a	Change	-441	-322	-277	-369	-264	-582	-579	-798	-667	-437	-492	-592	-485
Alt 10a	Change	-430	-312	-266	-358	-254	-571	-569	-787	-652	-428	-491	-591	-476
Alt 13a	Change	-452	-302	-257	-348	-243	-546	-544	-472	-520	-347	-491	-593	-426
Percent change in volume from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	-1%	-1%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	-1%	-1%	-1%	-1%	-1%	-1%	-2%	-2%	-1%	-1%	-1%	-1%	-1%
Alt 1c	% Change	-1%	-1%	-1%	-1%	-1%	-2%	-2%	-2%	-1%	-1%	-1%	-1%	-1%
Alt 8a	% Change	-1%	-1%	0%	-1%	0%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%
Alt 10a	% Change	-1%	0%	0%	-1%	0%	-1%	-1%	-1%	-1%	0%	-1%	-1%	-1%
Alt 13a	% Change	-1%	0%	0%	-1%	0%	-1%	-1%	-1%	-1%	0%	-1%	-1%	-1%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		69,025	65,218	63,095	61,162	60,132	59,055	59,240	66,027	75,181	69,113	58,112	44,944	62,525
No Act	Content	69,224	65,416	63,293	61,360	60,330	59,252	59,438	66,224	75,377	69,308	58,233	45,065	62,710
Alt 1a	Content	68,981	65,174	63,051	61,118	60,088	59,010	59,195	65,982	75,137	69,166	58,118	44,951	62,498
Alt 1c	Content	69,073	65,265	63,143	61,209	60,179	59,102	59,287	66,074	75,228	69,207	58,158	44,991	62,576
Alt 8a	Content	68,986	65,178	63,055	61,122	60,092	59,014	59,200	65,987	75,141	69,171	58,123	44,955	62,502
Alt 10a	Content	68,995	65,188	63,065	61,131	60,101	59,024	59,210	65,997	75,151	69,180	58,133	44,965	62,512
Alt 13a	Content	68,988	65,181	63,058	61,124	60,095	59,017	59,203	65,989	75,144	69,174	58,125	44,958	62,505
Content Change from Full Use Existing System														
No Act	Change	199	198	198	198	198	198	198	197	196	195	121	121	185
Alt 1a	Change	-44	-44	-44	-44	-44	-45	-45	-45	-45	54	5	7	-28
Alt 1c	Change	48	48	48	47	47	47	47	47	46	95	46	48	51
Alt 8a	Change	-40	-39	-39	-40	-40	-40	-40	-40	-40	58	11	12	-23
Alt 10a	Change	-30	-30	-30	-31	-31	-31	-30	-31	-31	67	20	21	-14
Alt 13a	Change	-37	-37	-37	-37	-37	-37	-38	-38	-38	61	13	14	-21
Percent change in volume from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		81,391	77,626	74,057	70,308	68,009	60,599	53,144	68,439	96,677	96,802	95,603	90,607	77,772
No Act	Content	80,109	76,096	72,332	68,531	66,335	58,855	51,400	66,662	96,678	96,802	95,605	90,566	76,664
Alt 1a	Content	79,361	75,521	72,212	68,754	66,719	59,268	51,846	66,770	96,499	96,802	95,681	90,610	76,670
Alt 1c	Content	79,363	75,517	72,075	68,564	66,530	59,077	51,659	66,583	96,499	96,802	95,681	90,625	76,581
Alt 8a	Content	79,379	75,557	72,301	68,837	66,802	59,355	51,934	66,858	96,499	96,802	95,681	90,622	76,719
Alt 10a	Content	79,381	75,554	72,301	68,835	66,801	59,353	51,932	66,856	96,499	96,802	95,681	90,623	76,718
Alt 13a	Content	79,376	75,556	72,299	68,834	66,799	59,352	51,933	66,857	96,499	96,802	95,681	90,623	76,718
Content Change from Full Use Existing System														
No Act	Change	-1,281	-1,530	-1,724	-1,777	-1,673	-1,744	-1,744	-1,777	1	0	2	-41	-1,107
Alt 1a	Change	-2,030	-2,105	-1,845	-1,554	-1,289	-1,331	-1,298	-1,669	-178	0	78	3	-1,102
Alt 1c	Change	-2,028	-2,109	-1,981	-1,744	-1,479	-1,522	-1,485	-1,856	-178	0	78	17	-1,191
Alt 8a	Change	-2,012	-2,069	-1,756	-1,471	-1,206	-1,244	-1,210	-1,581	-178	0	78	15	-1,053
Alt 10a	Change	-2,009	-2,072	-1,756	-1,473	-1,208	-1,245	-1,212	-1,584	-178	0	78	16	-1,054
Alt 13a	Change	-2,014	-2,070	-1,758	-1,474	-1,209	-1,247	-1,210	-1,582	-178	0	78	16	-1,054
Percent change in volume from Full Use Existing System														
No Act	% Change	-2%	-2%	-2%	-3%	-2%	-3%	-3%	-3%	0%	0%	0%	0%	-1%
Alt 1a	% Change	-2%	-3%	-2%	-2%	-2%	-2%	-2%	-2%	0%	0%	0%	0%	-1%
Alt 1c	% Change	-2%	-3%	-3%	-2%	-2%	-3%	-3%	-3%	0%	0%	0%	0%	-2%
Alt 8a	% Change	-2%	-3%	-2%	-2%	-2%	-2%	-2%	-2%	0%	0%	0%	0%	-1%
Alt 10a	% Change	-2%	-3%	-2%	-2%	-2%	-2%	-2%	-2%	0%	0%	0%	0%	-1%
Alt 13a	% Change	-2%	-3%	-2%	-2%	-2%	-2%	-2%	-2%	0%	0%	0%	0%	-1%

Table H-2.2. Williams Fork Reservoir End-of-Month Elevations (feet)

Elevation Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		7,788	7,784	7,781	7,777	7,775	7,772	7,770	7,781	7,802	7,804	7,799	7,792	7,785
No Act	Elevation	7,788	7,784	7,781	7,777	7,774	7,771	7,769	7,781	7,802	7,804	7,799	7,792	7,785
Alt 1a	Elevation	7,787	7,783	7,781	7,777	7,774	7,771	7,768	7,780	7,802	7,803	7,798	7,792	7,785
Alt 1c	Elevation	7,787	7,783	7,781	7,777	7,774	7,771	7,768	7,780	7,801	7,803	7,798	7,792	7,785
Alt 8a	Elevation	7,787	7,784	7,781	7,777	7,774	7,771	7,769	7,780	7,802	7,803	7,798	7,792	7,785
Alt 10a	Elevation	7,787	7,784	7,781	7,777	7,774	7,771	7,769	7,780	7,802	7,803	7,798	7,792	7,785
Alt 13a	Elevation	7,787	7,784	7,781	7,777	7,774	7,771	7,769	7,781	7,802	7,804	7,798	7,792	7,785
Elevation change from Full Use Existing System														
No Act	Change	0	0	0	0	0	-1	-1	0	0	0	0	0	0
Alt 1a	Change	-1	0	0	-1	-1	-1	-1	-1	-1	0	0	-1	-1
Alt 1c	Change	-1	-1	0	-1	-1	-1	-1	-1	-1	0	-1	-1	-1
Alt 8a	Change	0	0	0	0	0	-1	-1	-1	-1	0	0	0	0
Alt 10a	Change	0	0	0	0	0	-1	-1	-1	-1	0	0	0	0
Alt 13a	Change	0	0	0	0	0	-1	-1	0	0	0	0	0	0
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		7,790	7,787	7,785	7,783	7,782	7,781	7,781	7,787	7,795	7,790	7,781	7,768	7,784
No Act	Elevation	7,790	7,787	7,785	7,783	7,782	7,781	7,781	7,788	7,795	7,790	7,781	7,768	7,784
Alt 1a	Elevation	7,790	7,787	7,785	7,783	7,782	7,781	7,781	7,787	7,795	7,790	7,781	7,768	7,784
Alt 1c	Elevation	7,790	7,787	7,785	7,783	7,782	7,781	7,781	7,787	7,795	7,790	7,781	7,768	7,784
Alt 8a	Elevation	7,790	7,787	7,785	7,783	7,782	7,781	7,781	7,787	7,795	7,790	7,781	7,768	7,784
Alt 10a	Elevation	7,790	7,787	7,785	7,783	7,782	7,781	7,781	7,787	7,795	7,790	7,781	7,768	7,784
Alt 13a	Elevation	7,790	7,787	7,785	7,783	7,782	7,781	7,781	7,787	7,795	7,790	7,781	7,768	7,784
Elevation change from Full Use Existing System														
No Act	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 1a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 1c	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 8a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 10a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 13a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		7,801	7,798	7,795	7,791	7,789	7,783	7,775	7,789	7,811	7,811	7,810	7,807	7,797
No Act	Elevation	7,800	7,796	7,793	7,790	7,788	7,781	7,774	7,788	7,811	7,811	7,810	7,807	7,796
Alt 1a	Elevation	7,799	7,796	7,793	7,790	7,788	7,782	7,774	7,788	7,811	7,811	7,810	7,807	7,796
Alt 1c	Elevation	7,799	7,796	7,793	7,790	7,788	7,782	7,774	7,788	7,811	7,811	7,810	7,807	7,796
Alt 8a	Elevation	7,799	7,796	7,793	7,790	7,788	7,782	7,774	7,788	7,811	7,811	7,810	7,807	7,796
Alt 10a	Elevation	7,799	7,796	7,793	7,790	7,788	7,782	7,774	7,788	7,811	7,811	7,810	7,807	7,796
Alt 13a	Elevation	7,799	7,796	7,793	7,790	7,788	7,782	7,774	7,788	7,811	7,811	7,810	7,807	7,796
Elevation change from Full Use Existing System														
No Act	Change	-1	-1	-1	-1	-2	-2	-1	-1	0	0	0	0	-1
Alt 1a	Change	-1	-2	-2	-1	-1	-1	-1	-1	0	0	0	0	-1
Alt 1c	Change	-1	-2	-2	-1	-2	-1	-1	-1	0	0	0	0	-1
Alt 8a	Change	-1	-2	-1	-1	-1	-1	-1	-1	0	0	0	0	-1
Alt 10a	Change	-1	-2	-1	-1	-1	-1	-1	-1	0	0	0	0	-1
Alt 13a	Change	-1	-2	-1	-1	-1	-1	-1	-1	0	0	0	0	-1

Table H-2.3. Williams Fork Reservoir End-of-Month Surface Area (acres)

Surface Area Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		1,219	1,161	1,126	1,078	1,046	1,008	976	1,122	1,460	1,491	1,401	1,291	1,198
No Act	Surface Area	1,220	1,163	1,127	1,076	1,045	1,002	969	1,120	1,464	1,495	1,403	1,290	1,198
Alt 1a	Surface Area	1,210	1,155	1,120	1,070	1,039	996	963	1,109	1,447	1,484	1,391	1,280	1,189
Alt 1c	Surface Area	1,209	1,154	1,119	1,069	1,038	995	962	1,108	1,446	1,483	1,391	1,279	1,188
Alt 8a	Surface Area	1,213	1,157	1,122	1,072	1,042	999	966	1,111	1,450	1,486	1,394	1,282	1,191
Alt 10a	Surface Area	1,213	1,157	1,123	1,073	1,042	999	966	1,112	1,450	1,486	1,394	1,282	1,191
Alt 13a	Surface Area	1,213	1,157	1,123	1,073	1,042	999	967	1,116	1,452	1,487	1,394	1,282	1,192
Surface area change from Full Use Existing System														
No Act	Change	0	2	1	-2	-1	-6	-6	-2	4	4	2	-1	0
Alt 1a	Change	-9	-7	-6	-8	-7	-12	-12	-14	-13	-8	-10	-11	-10
Alt 1c	Change	-10	-7	-7	-9	-8	-13	-14	-15	-13	-8	-10	-12	-11
Alt 8a	Change	-6	-4	-4	-5	-4	-9	-10	-11	-10	-6	-7	-9	-7
Alt 10a	Change	-6	-4	-3	-5	-4	-9	-10	-11	-9	-6	-7	-9	-7
Alt 13a	Change	-6	-4	-3	-5	-4	-8	-9	-7	-8	-5	-7	-9	-6
Percent change in surface area from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	-1%	-1%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%
Alt 1c	% Change	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%
Alt 8a	% Change	0%	0%	0%	-1%	0%	-1%	-1%	-1%	-1%	0%	-1%	-1%	-1%
Alt 10a	% Change	0%	0%	0%	0%	0%	-1%	-1%	-1%	-1%	0%	-1%	-1%	-1%
Alt 13a	% Change	-1%	0%	0%	0%	0%	-1%	-1%	-1%	-1%	0%	0%	-1%	-1%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		1,242	1,193	1,165	1,139	1,126	1,112	1,115	1,204	1,324	1,244	1,102	930	1,158
No Act	Surface Area	1,245	1,195	1,168	1,142	1,129	1,115	1,117	1,206	1,326	1,247	1,104	931	1,160
Alt 1a	Surface Area	1,242	1,192	1,165	1,139	1,125	1,111	1,114	1,203	1,323	1,245	1,102	930	1,158
Alt 1c	Surface Area	1,243	1,193	1,166	1,140	1,127	1,113	1,115	1,204	1,324	1,245	1,103	930	1,159
Alt 8a	Surface Area	1,242	1,192	1,165	1,139	1,126	1,112	1,114	1,203	1,323	1,245	1,102	930	1,158
Alt 10a	Surface Area	1,242	1,192	1,165	1,139	1,126	1,112	1,114	1,203	1,323	1,245	1,103	930	1,158
Alt 13a	Surface Area	1,242	1,192	1,165	1,139	1,126	1,112	1,114	1,203	1,323	1,245	1,103	930	1,158
Surface area change from Full Use Existing System														
No Act	Change	3	3	3	3	3	3	3	3	3	3	2	2	2
Alt 1a	Change	0	0	0	0	0	0	0	0	-1	1	0	0	0
Alt 1c	Change	1	1	1	1	1	1	1	1	1	1	1	1	1
Alt 8a	Change	0	0	0	0	0	0	0	0	0	1	0	0	0
Alt 10a	Change	0	0	0	0	0	0	0	0	0	1	0	0	0
Alt 13a	Change	0	0	0	0	0	0	0	0	0	1	0	0	0
Percent change in surface area from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		1,404	1,354	1,307	1,259	1,230	1,134	1,036	1,236	1,626	1,628	1,610	1,536	1,363
No Act	Surface Area	1,387	1,334	1,285	1,236	1,208	1,112	1,013	1,212	1,626	1,628	1,610	1,535	1,349
Alt 1a	Surface Area	1,377	1,326	1,284	1,239	1,213	1,117	1,019	1,213	1,623	1,628	1,611	1,536	1,349
Alt 1c	Surface Area	1,377	1,326	1,282	1,237	1,211	1,115	1,017	1,211	1,623	1,628	1,611	1,536	1,348
Alt 8a	Surface Area	1,377	1,327	1,285	1,240	1,214	1,118	1,020	1,214	1,623	1,628	1,611	1,536	1,349
Alt 10a	Surface Area	1,377	1,327	1,285	1,240	1,214	1,118	1,020	1,214	1,623	1,628	1,611	1,536	1,349
Alt 13a	Surface Area	1,377	1,327	1,285	1,240	1,214	1,118	1,020	1,214	1,623	1,628	1,611	1,536	1,349
Surface area change from Full Use Existing System														
No Act	Change	-18	-20	-22	-23	-22	-22	-22	-24	0	0	0	-1	-14
Alt 1a	Change	-27	-27	-24	-20	-17	-17	-17	-23	-3	0	1	0	-14
Alt 1c	Change	-27	-28	-25	-22	-19	-20	-19	-25	-3	0	1	0	-16
Alt 8a	Change	-27	-27	-23	-19	-16	-16	-16	-22	-3	0	1	0	-14
Alt 10a	Change	-27	-27	-23	-19	-16	-16	-16	-22	-3	0	1	0	-14
Alt 13a	Change	-27	-27	-23	-19	-16	-16	-16	-22	-3	0	1	0	-14
Percent change in surface area from Full Use Existing System														
No Act	% Change	-1%	-1%	-2%	-2%	-2%	-2%	-2%	-2%	0%	0%	0%	0%	-1%
Alt 1a	% Change	-2%	-2%	-2%	-2%	-1%	-2%	-2%	-2%	0%	0%	0%	0%	-1%
Alt 1c	% Change	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	0%	0%	0%	0%	-1%
Alt 8a	% Change	-2%	-2%	-2%	-2%	-1%	-1%	-2%	-2%	0%	0%	0%	0%	-1%
Alt 10a	% Change	-2%	-2%	-2%	-2%	-1%	-1%	-2%	-2%	0%	0%	0%	0%	-1%
Alt 13a	% Change	-2%	-2%	-2%	-2%	-1%	-1%	-2%	-2%	0%	0%	0%	0%	-1%

Appendix H-2
Reservoir Storage Changes

Table H-2.4. Dillon Reservoir End-of-Month Storage Content (AF)

Content Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		202,971	198,388	193,373	189,316	185,479	182,138	179,665	196,114	224,501	233,033	225,013	211,842	201,820
No Act	Content	193,263	188,448	182,934	178,249	173,805	169,863	166,995	184,381	217,348	225,855	217,500	202,970	191,801
Alt 1a	Content	195,471	192,697	189,686	187,379	185,143	183,278	181,321	194,331	222,406	228,570	218,430	204,065	198,565
Alt 1c	Content	195,034	192,255	189,253	186,961	184,718	182,850	180,911	193,997	222,204	228,407	218,083	203,628	198,192
Alt 8a	Content	196,073	193,285	190,257	187,920	185,661	183,780	181,884	194,948	222,768	228,943	218,913	204,660	199,091
Alt 10a	Content	196,024	193,237	190,207	187,867	185,610	183,731	181,827	194,870	222,695	228,888	218,874	204,599	199,036
Alt 13a	Content	195,961	193,198	190,189	187,900	185,655	183,802	181,883	194,888	222,775	228,912	218,826	204,519	199,042
Content change from Full Use Existing System														
No Act	Change	-9,709	-9,940	-10,439	-11,067	-11,674	-12,276	-12,671	-11,734	-7,153	-7,178	-7,513	-8,872	-10,019
Alt 1a	Change	-7,501	-5,690	-3,688	-1,937	-336	1,140	1,656	-1,783	-2,095	-4,463	-6,583	-7,777	-3,255
Alt 1c	Change	-7,937	-6,133	-4,121	-2,355	-761	711	1,246	-2,117	-2,297	-4,626	-6,929	-8,214	-3,628
Alt 8a	Change	-6,899	-5,103	-3,116	-1,397	182	1,642	2,219	-1,166	-1,733	-4,090	-6,100	-7,182	-2,729
Alt 10a	Change	-6,947	-5,151	-3,166	-1,449	131	1,592	2,162	-1,245	-1,806	-4,145	-6,139	-7,243	-2,784
Alt 13a	Change	-7,011	-5,189	-3,184	-1,416	176	1,664	2,217	-1,226	-1,726	-4,122	-6,187	-7,323	-2,777
Percent change in volume from Full Use Existing System														
No Act	% Change	-5%	-5%	-5%	-6%	-6%	-7%	-7%	-6%	-3%	-3%	-3%	-4%	-5%
Alt 1a	% Change	-4%	-3%	-2%	-1%	0%	1%	1%	-1%	-1%	-2%	-3%	-4%	-2%
Alt 1c	% Change	-4%	-3%	-2%	-1%	0%	0%	1%	-1%	-1%	-2%	-3%	-4%	-2%
Alt 8a	% Change	-3%	-3%	-2%	-1%	0%	1%	1%	-1%	-1%	-2%	-3%	-3%	-1%
Alt 10a	% Change	-3%	-3%	-2%	-1%	0%	1%	1%	-1%	-1%	-2%	-3%	-3%	-1%
Alt 13a	% Change	-3%	-3%	-2%	-1%	0%	1%	1%	-1%	-1%	-2%	-3%	-3%	-1%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		180,823	174,229	167,969	161,961	156,429	151,587	142,552	145,439	150,276	136,019	126,193	115,861	150,778
No Act	Content	172,539	165,615	158,665	151,966	145,724	140,092	130,657	133,455	137,845	122,711	113,074	104,147	139,707
Alt 1a	Content	176,714	172,005	167,513	163,132	159,072	156,154	147,817	148,183	149,573	132,642	121,525	112,535	150,572
Alt 1c	Content	176,229	171,526	167,035	162,657	158,580	155,661	147,343	147,725	149,170	132,401	121,281	112,390	150,167
Alt 8a	Content	176,699	171,966	167,466	163,055	158,977	156,045	147,747	148,107	149,536	132,618	121,565	112,561	150,529
Alt 10a	Content	176,532	171,781	167,281	162,898	158,837	155,892	147,568	147,923	149,326	132,459	121,440	112,449	150,366
Alt 13a	Content	176,887	172,180	167,689	163,311	159,214	156,289	147,971	148,302	149,663	132,797	121,637	112,627	150,714
Content Change from Full Use Existing System														
No Act	Change	-8,284	-8,614	-9,303	-9,995	-10,706	-11,495	-11,895	-11,984	-12,431	-13,309	-13,119	-11,715	-11,071
Alt 1a	Change	-4,109	-2,223	-456	1,171	2,642	4,567	5,265	2,744	-703	-3,378	-4,669	-3,326	-206
Alt 1c	Change	-4,594	-2,702	-933	696	2,151	4,074	4,791	2,286	-1,106	-3,619	-4,912	-3,471	-612
Alt 8a	Change	-4,125	-2,263	-503	1,094	2,547	4,458	5,195	2,668	-740	-3,402	-4,628	-3,301	-250
Alt 10a	Change	-4,291	-2,447	-687	937	2,407	4,305	5,016	2,484	-950	-3,560	-4,753	-3,412	-413
Alt 13a	Change	-3,937	-2,049	-280	1,350	2,785	4,702	5,419	2,863	-613	-3,222	-4,556	-3,234	-64
Percent change in volume from Full Use Existing System														
No Act	% Change	-5%	-5%	-6%	-6%	-7%	-8%	-8%	-8%	-8%	-10%	-10%	-10%	-7%
Alt 1a	% Change	-2%	-1%	0%	1%	2%	3%	4%	2%	0%	-2%	-4%	-3%	0%
Alt 1c	% Change	-3%	-2%	-1%	0%	1%	3%	3%	2%	-1%	-3%	-4%	-3%	0%
Alt 8a	% Change	-2%	-1%	0%	1%	2%	3%	4%	2%	0%	-3%	-4%	-3%	0%
Alt 10a	% Change	-2%	-1%	0%	1%	2%	3%	4%	2%	-1%	-3%	-4%	-3%	0%
Alt 13a	% Change	-2%	-1%	0%	1%	2%	3%	4%	2%	0%	-2%	-4%	-3%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		245,149	243,214	240,221	238,604	236,801	235,815	236,572	240,586	248,575	257,131	251,226	239,474	242,781
No Act	Content	235,957	233,877	230,008	227,614	225,164	223,751	225,424	234,385	248,586	257,094	250,053	236,918	235,736
Alt 1a	Content	236,675	236,472	235,304	234,749	233,956	234,073	235,051	238,868	247,792	256,772	249,138	236,177	239,586
Alt 1c	Content	235,957	235,750	234,703	234,211	233,416	233,532	234,507	238,457	247,756	256,722	248,770	235,626	239,117
Alt 8a	Content	238,478	238,230	237,000	236,445	235,629	235,754	236,737	240,785	248,331	256,734	249,032	236,095	240,771
Alt 10a	Content	238,523	238,275	237,046	236,496	235,680	235,801	236,785	240,659	248,169	256,691	249,022	236,065	240,768
Alt 13a	Content	237,733	237,520	236,275	235,713	234,917	235,062	236,045	240,034	248,189	256,662	249,042	236,029	240,268
Content Change from Full Use Existing System														
No Act	Change	-9,192	-9,337	-10,213	-10,990	-11,637	-12,064	-11,148	-6,201	11	-37	-1,172	-2,556	-7,045
Alt 1a	Change	-8,474	-6,742	-4,917	-3,855	-2,845	-1,741	-1,521	-1,718	-783	-358	-2,088	-3,297	-3,195
Alt 1c	Change	-9,192	-7,464	-5,518	-4,393	-3,385	-2,283	-2,065	-2,129	-819	-409	-2,455	-3,848	-3,663
Alt 8a	Change	-6,671	-4,983	-3,221	-2,159	-1,172	-61	165	199	-243	-397	-2,194	-3,379	-2,010
Alt 10a	Change	-6,626	-4,939	-3,175	-2,108	-1,121	-13	213	73	-406	-440	-2,204	-3,408	-2,013
Alt 13a	Change	-7,416	-5,694	-3,946	-2,890	-1,884	-753	-527	-552	-386	-469	-2,183	-3,445	-2,512
Percent change in volume from Full Use Existing System														
No Act	% Change	-4%	-4%	-4%	-5%	-5%	-5%	-5%	-3%	0%	0%	0%	-1%	-3%
Alt 1a	% Change	-3%	-3%	-2%	-2%	-1%	-1%	-1%	-1%	0%	0%	-1%	-1%	-1%
Alt 1c	% Change	-4%	-3%	-2%	-2%	-1%	-1%	-1%	-1%	0%	0%	-1%	-2%	-2%
Alt 8a	% Change	-3%	-2%	-1%	-1%	0%	0%	0%	0%	0%	0%	-1%	-1%	-1%
Alt 10a	% Change	-3%	-2%	-1%	-1%	0%	0%	0%	0%	0%	0%	-1%	-1%	-1%
Alt 13a	% Change	-3%	-2%	-2%	-1%	-1%	0%	0%	0%	0%	0%	-1%	-1%	-1%

Table H-2.5. Dillon Reservoir End-of-Month Elevations (feet)

Elevation Change and % Change are based on comparisons to Full Use Existing System

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		8,996	8,993	8,991	8,989	8,987	8,986	8,985	8,992	9,005	9,007	9,004	8,999	8,995
No Act	Elevation	8,991	8,989	8,986	8,984	8,981	8,979	8,977	8,987	9,002	9,004	9,001	8,995	8,990
Alt 1a	Elevation	8,993	8,991	8,990	8,989	8,987	8,986	8,986	8,992	9,004	9,006	9,002	8,996	8,993
Alt 1c	Elevation	8,992	8,991	8,990	8,988	8,987	8,986	8,985	8,992	9,004	9,006	9,002	8,996	8,993
Alt 8a	Elevation	8,993	8,991	8,990	8,989	8,988	8,987	8,986	8,992	9,004	9,006	9,002	8,996	8,994
Alt 10a	Elevation	8,993	8,991	8,990	8,989	8,988	8,987	8,986	8,992	9,004	9,006	9,002	8,996	8,994
Alt 13a	Elevation	8,993	8,991	8,990	8,989	8,988	8,987	8,986	8,992	9,004	9,006	9,002	8,996	8,994
Elevation change from Full Use Existing System														
No Act	Change	-5	-5	-5	-6	-6	-7	-7	-6	-3	-3	-3	-4	-5
Alt 1a	Change	-3	-2	-1	-1	0	1	1	-1	-1	-2	-2	-3	-1
Alt 1c	Change	-3	-2	-2	-1	0	1	1	-1	-1	-2	-3	-3	-1
Alt 8a	Change	-3	-2	-1	-1	0	1	1	0	-1	-2	-2	-3	-1
Alt 10a	Change	-3	-2	-1	-1	0	1	1	0	-1	-2	-2	-3	-1
Alt 13a	Change	-3	-2	-1	0	0	1	1	0	0	-2	-2	-3	-1
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		8,987	8,984	8,981	8,978	8,975	8,973	8,968	8,971	8,974	8,967	8,962	8,956	8,973
No Act	Elevation	8,983	8,979	8,976	8,973	8,970	8,966	8,961	8,964	8,968	8,959	8,954	8,948	8,967
Alt 1a	Elevation	8,985	8,983	8,981	8,979	8,977	8,975	8,972	8,973	8,974	8,965	8,959	8,954	8,973
Alt 1c	Elevation	8,985	8,983	8,981	8,978	8,976	8,975	8,971	8,972	8,974	8,965	8,959	8,954	8,973
Alt 8a	Elevation	8,985	8,983	8,981	8,979	8,977	8,975	8,972	8,972	8,974	8,965	8,959	8,954	8,973
Alt 10a	Elevation	8,985	8,983	8,981	8,978	8,977	8,975	8,971	8,972	8,974	8,965	8,959	8,954	8,973
Alt 13a	Elevation	8,985	8,983	8,981	8,979	8,977	8,975	8,972	8,973	8,974	8,965	8,959	8,954	8,973
Elevation change from Full Use Existing System														
No Act	Change	-4	-4	-5	-5	-5	-6	-7	-6	-6	-8	-8	-8	-6
Alt 1a	Change	-2	-1	0	1	2	3	3	2	0	-2	-3	-2	0
Alt 1c	Change	-2	-1	0	1	2	2	3	2	0	-2	-3	-2	0
Alt 8a	Change	-2	-1	0	1	2	3	3	2	0	-2	-3	-2	0
Alt 10a	Change	-2	-1	0	1	2	2	3	2	0	-2	-3	-2	0
Alt 13a	Change	-2	-1	0	1	2	3	4	2	0	-2	-2	-2	0
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		9,013	9,012	9,011	9,011	9,010	9,010	9,010	9,011	9,014	9,017	9,015	9,011	9,012
No Act	Elevation	9,010	9,009	9,008	9,007	9,006	9,005	9,006	9,009	9,014	9,017	9,015	9,010	9,010
Alt 1a	Elevation	9,010	9,010	9,009	9,009	9,009	9,009	9,009	9,011	9,014	9,017	9,014	9,010	9,011
Alt 1c	Elevation	9,010	9,010	9,009	9,009	9,009	9,009	9,009	9,011	9,014	9,017	9,014	9,010	9,011
Alt 8a	Elevation	9,011	9,011	9,010	9,010	9,010	9,010	9,010	9,011	9,014	9,017	9,014	9,010	9,011
Alt 10a	Elevation	9,011	9,011	9,010	9,010	9,010	9,010	9,010	9,011	9,014	9,017	9,014	9,010	9,011
Alt 13a	Elevation	9,010	9,010	9,010	9,010	9,009	9,009	9,010	9,011	9,014	9,017	9,014	9,010	9,011
Elevation change from Full Use Existing System														
No Act	Change	-3	-3	-4	-4	-4	-4	-4	-2	0	0	-1	-1	-2
Alt 1a	Change	-3	-2	-2	-1	-1	0	0	-1	0	0	-1	-1	-1
Alt 1c	Change	-3	-2	-2	-2	-1	-1	-1	-1	0	0	-1	-1	-1
Alt 8a	Change	-2	-2	-1	-1	-1	0	0	0	0	0	-1	-1	-1
Alt 10a	Change	-2	-2	-1	-1	-1	0	0	0	0	0	-1	-1	-1
Alt 13a	Change	-2	-2	-1	-1	-1	0	0	0	0	0	-1	-1	-1

Table H-2.6. Dillon Reservoir End-of-Month Surface Area (acres)

Surface Area Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		2,627	2,575	2,518	2,473	2,429	2,390	2,361	2,546	2,871	2,973	2,880	2,728	2,614
No Act	Surface Area	2,520	2,464	2,400	2,346	2,294	2,247	2,214	2,414	2,788	2,891	2,796	2,631	2,500
Alt 1a	Surface Area	2,540	2,509	2,474	2,449	2,423	2,402	2,379	2,523	2,846	2,921	2,804	2,638	2,576
Alt 1c	Surface Area	2,535	2,504	2,469	2,444	2,418	2,397	2,374	2,519	2,844	2,919	2,800	2,633	2,571
Alt 8a	Surface Area	2,547	2,516	2,481	2,456	2,430	2,408	2,386	2,531	2,850	2,925	2,809	2,645	2,582
Alt 10a	Surface Area	2,547	2,515	2,481	2,455	2,429	2,408	2,385	2,530	2,850	2,925	2,809	2,645	2,581
Alt 13a	Surface Area	2,546	2,515	2,480	2,455	2,429	2,408	2,385	2,530	2,851	2,925	2,808	2,644	2,581
Surface area change from Full Use Existing System														
No Act	Change	-108	-111	-118	-126	-135	-144	-147	-132	-83	-81	-84	-97	-114
Alt 1a	Change	-87	-67	-44	-24	-5	12	17	-23	-25	-52	-76	-90	-39
Alt 1c	Change	-92	-72	-49	-29	-10	7	13	-27	-27	-54	-80	-95	-43
Alt 8a	Change	-80	-60	-37	-17	1	18	24	-16	-21	-48	-71	-83	-32
Alt 10a	Change	-80	-60	-37	-18	0	17	24	-16	-22	-48	-71	-84	-33
Alt 13a	Change	-81	-61	-38	-18	1	18	24	-16	-21	-48	-72	-85	-33
Percent change in surface area from Full Use Existing System														
No Act	% Change	-4%	-4%	-5%	-5%	-6%	-6%	-6%	-5%	-3%	-3%	-3%	-4%	-4%
Alt 1a	% Change	-3%	-3%	-2%	-1%	0%	0%	1%	-1%	-1%	-2%	-3%	-3%	-1%
Alt 1c	% Change	-4%	-3%	-2%	-1%	0%	0%	1%	-1%	-1%	-2%	-3%	-3%	-2%
Alt 8a	% Change	-3%	-2%	-1%	-1%	0%	1%	1%	-1%	-1%	-2%	-2%	-3%	-1%
Alt 10a	% Change	-3%	-2%	-1%	-1%	0%	1%	1%	-1%	-1%	-2%	-2%	-3%	-1%
Alt 13a	% Change	-3%	-2%	-1%	-1%	0%	1%	1%	-1%	-1%	-2%	-2%	-3%	-1%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		2,373	2,298	2,226	2,158	2,093	2,038	1,933	1,957	2,000	1,839	1,729	1,620	2,022
No Act	Surface Area	2,280	2,202	2,121	2,044	1,972	1,907	1,800	1,825	1,859	1,700	1,596	1,511	1,901
Alt 1a	Surface Area	2,322	2,269	2,217	2,168	2,121	2,087	1,987	1,981	1,987	1,798	1,676	1,584	2,016
Alt 1c	Surface Area	2,316	2,263	2,211	2,162	2,115	2,082	1,982	1,976	1,983	1,795	1,673	1,583	2,012
Alt 8a	Surface Area	2,322	2,269	2,217	2,167	2,120	2,086	1,987	1,980	1,987	1,798	1,676	1,585	2,016
Alt 10a	Surface Area	2,320	2,266	2,214	2,165	2,118	2,085	1,985	1,978	1,984	1,796	1,675	1,583	2,014
Alt 13a	Surface Area	2,324	2,271	2,219	2,170	2,122	2,089	1,989	1,982	1,988	1,800	1,677	1,585	2,018
Surface area change from Full Use Existing System														
No Act	Change	-93	-96	-105	-113	-121	-131	-133	-132	-141	-139	-132	-109	-120
Alt 1a	Change	-51	-29	-9	10	27	50	55	24	-13	-41	-53	-36	-5
Alt 1c	Change	-57	-35	-14	4	22	44	49	19	-17	-44	-55	-38	-10
Alt 8a	Change	-51	-29	-9	9	27	49	54	23	-13	-41	-52	-36	-6
Alt 10a	Change	-53	-32	-11	8	25	47	52	21	-15	-43	-54	-37	-8
Alt 13a	Change	-49	-27	-6	12	29	52	57	26	-11	-40	-51	-35	-4
Percent change in surface area from Full Use Existing System														
No Act	% Change	-4%	-4%	-5%	-5%	-6%	-6%	-7%	-7%	-7%	-8%	-8%	-7%	-6%
Alt 1a	% Change	-2%	-1%	0%	0%	1%	2%	3%	1%	-1%	-2%	-3%	-2%	0%
Alt 1c	% Change	-2%	-2%	-1%	0%	1%	2%	3%	1%	-1%	-2%	-3%	-2%	-1%
Alt 8a	% Change	-2%	-1%	0%	0%	1%	2%	3%	1%	-1%	-2%	-3%	-2%	0%
Alt 10a	% Change	-2%	-1%	-1%	0%	1%	2%	3%	1%	-1%	-2%	-3%	-2%	0%
Alt 13a	% Change	-2%	-1%	0%	1%	1%	3%	3%	1%	-1%	-2%	-3%	-2%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		3,115	3,092	3,057	3,038	3,017	3,005	3,013	3,062	3,155	3,255	3,186	3,049	3,087
No Act	Surface Area	3,008	2,983	2,937	2,909	2,880	2,863	2,882	2,989	3,155	3,255	3,172	3,019	3,004
Alt 1a	Surface Area	3,016	3,014	3,000	2,993	2,984	2,985	2,996	3,042	3,146	3,251	3,162	3,010	3,050
Alt 1c	Surface Area	3,007	3,005	2,993	2,987	2,978	2,979	2,990	3,037	3,145	3,250	3,157	3,004	3,044
Alt 8a	Surface Area	3,037	3,034	3,020	3,013	3,004	3,005	3,016	3,064	3,152	3,250	3,160	3,009	3,064
Alt 10a	Surface Area	3,038	3,035	3,020	3,014	3,004	3,005	3,016	3,063	3,150	3,250	3,160	3,009	3,064
Alt 13a	Surface Area	3,028	3,026	3,011	3,005	2,995	2,997	3,008	3,055	3,151	3,250	3,161	3,008	3,058
Surface area change from Full Use Existing System														
No Act	Change	-107	-109	-120	-130	-137	-142	-131	-72	0	0	-14	-30	-83
Alt 1a	Change	-99	-79	-58	-45	-33	-20	-17	-20	-9	-4	-24	-39	-37
Alt 1c	Change	-108	-87	-65	-51	-39	-26	-24	-25	-10	-5	-29	-45	-43
Alt 8a	Change	-78	-58	-38	-25	-13	0	3	2	-3	-5	-26	-39	-23
Alt 10a	Change	-77	-58	-37	-25	-13	0	3	1	-5	-5	-26	-40	-23
Alt 13a	Change	-87	-66	-46	-34	-22	-8	-6	-6	-5	-5	-26	-40	-29
Percent change in surface area from Full Use Existing System														
No Act	% Change	-3%	-4%	-4%	-4%	-5%	-5%	-4%	-2%	0%	0%	0%	-1%	-3%
Alt 1a	% Change	-3%	-3%	-2%	-1%	-1%	-1%	-1%	-1%	0%	0%	-1%	-1%	-1%
Alt 1c	% Change	-3%	-3%	-2%	-2%	-1%	-1%	-1%	-1%	0%	0%	-1%	-1%	-1%
Alt 8a	% Change	-3%	-2%	-1%	-1%	0%	0%	0%	0%	0%	0%	-1%	-1%	-1%
Alt 10a	% Change	-2%	-2%	-1%	-1%	0%	0%	0%	0%	0%	0%	-1%	-1%	-1%
Alt 13a	% Change	-3%	-2%	-2%	-1%	-1%	0%	0%	0%	0%	0%	-1%	-1%	-1%

Table H-2.7. Wolford Mountain Reservoir End-of-Month Storage Content (AF)

Content Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		50,457	49,822	49,218	47,470	46,739	46,153	49,564	58,887	60,067	58,342	55,468	51,842	52,002
No Act	Content	50,208	49,573	48,969	47,305	46,598	46,018	49,429	58,798	59,971	58,241	55,311	51,491	51,826
Alt 1a	Content	50,237	49,601	48,997	47,333	46,629	46,053	49,461	58,814	59,986	58,270	55,362	51,572	51,859
Alt 1c	Content	50,232	49,597	48,993	47,329	46,629	46,053	49,461	58,814	59,986	58,271	55,362	51,568	51,858
Alt 8a	Content	50,251	49,615	49,011	47,350	46,628	46,052	49,460	58,814	59,986	58,270	55,361	51,586	51,865
Alt 10a	Content	50,254	49,618	49,014	47,353	46,631	46,055	49,463	58,814	59,986	58,269	55,361	51,586	51,867
Alt 13a	Content	50,256	49,621	49,017	47,355	46,634	46,058	49,466	58,822	59,994	58,272	55,365	51,590	51,871
Content change from Full Use Existing System														
No Act	Change	-249	-250	-249	-165	-141	-135	-135	-89	-96	-100	-157	-351	-176
Alt 1a	Change	-220	-221	-221	-137	-110	-101	-103	-74	-81	-71	-106	-271	-143
Alt 1c	Change	-225	-225	-225	-141	-110	-100	-103	-73	-80	-71	-105	-274	-144
Alt 8a	Change	-206	-207	-207	-120	-111	-102	-104	-73	-81	-72	-107	-257	-137
Alt 10a	Change	-203	-204	-204	-117	-108	-99	-101	-73	-81	-72	-107	-257	-135
Alt 13a	Change	-201	-201	-201	-114	-105	-95	-98	-65	-72	-70	-103	-253	-132
Percent change in volume from Full Use Existing System														
No Act	% Change	0%	-1%	-1%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		50,064	49,423	48,816	47,635	47,270	46,731	46,822	54,754	55,213	52,977	46,632	34,310	48,387
No Act	Content	50,016	49,375	48,768	47,634	47,269	46,730	46,821	54,753	55,212	52,976	46,631	34,261	48,370
Alt 1a	Content	50,012	49,370	48,763	47,628	47,263	46,725	46,815	54,747	55,207	52,970	46,625	34,256	48,365
Alt 1c	Content	50,012	49,370	48,763	47,628	47,263	46,725	46,815	54,747	55,207	52,970	46,625	34,256	48,365
Alt 8a	Content	50,011	49,370	48,763	47,628	47,263	46,724	46,815	54,747	55,206	52,970	46,625	34,257	48,365
Alt 10a	Content	50,011	49,370	48,763	47,628	47,263	46,724	46,815	54,747	55,206	52,970	46,625	34,257	48,365
Alt 13a	Content	50,012	49,371	48,764	47,628	47,263	46,724	46,815	54,747	55,206	52,970	46,625	34,257	48,365
Content Change from Full Use Existing System														
No Act	Change	-48	-48	-48	-1	-2	-1	-1	-1	-1	-1	-1	-49	-17
Alt 1a	Change	-53	-53	-53	-7	-7	-7	-7	-7	-6	-6	-6	-53	-22
Alt 1c	Change	-53	-53	-53	-7	-7	-7	-7	-7	-6	-6	-6	-54	-22
Alt 8a	Change	-53	-53	-53	-7	-7	-7	-7	-7	-7	-7	-7	-53	-22
Alt 10a	Change	-53	-53	-53	-7	-7	-7	-7	-7	-7	-7	-7	-53	-22
Alt 13a	Change	-52	-52	-52	-7	-7	-7	-7	-7	-7	-7	-7	-53	-22
Percent change in volume from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		55,759	55,112	54,466	53,859	53,474	51,292	61,368	65,014	64,906	62,427	61,427	59,083	58,182
No Act	Content	55,751	55,101	54,455	53,846	53,440	51,323	61,398	65,017	64,910	62,422	61,423	59,087	58,181
Alt 1a	Content	55,758	55,109	54,463	53,860	53,436	51,327	61,402	65,012	64,904	62,420	61,385	59,085	58,180
Alt 1c	Content	55,756	55,106	54,461	53,855	53,440	51,325	61,400	65,012	64,904	62,417	61,382	59,081	58,178
Alt 8a	Content	55,757	55,107	54,462	53,858	53,437	51,319	61,395	65,011	64,904	62,419	61,385	59,086	58,178
Alt 10a	Content	55,757	55,107	54,462	53,858	53,437	51,320	61,395	65,011	64,904	62,419	61,385	59,086	58,178
Alt 13a	Content	55,758	55,108	54,463	53,859	53,438	51,320	61,396	65,011	64,904	62,419	61,385	59,086	58,179
Content Change from Full Use Existing System														
No Act	Change	-7	-11	-10	-13	-34	30	30	3	4	-5	-4	4	-1
Alt 1a	Change	-1	-4	-3	1	-38	34	34	-2	-2	-7	-42	3	-2
Alt 1c	Change	-3	-6	-4	-4	-34	33	32	-2	-2	-10	-45	-1	-4
Alt 8a	Change	-2	-5	-4	-1	-37	27	27	-2	-2	-8	-42	3	-4
Alt 10a	Change	-2	-5	-4	-1	-37	27	27	-2	-2	-8	-42	3	-4
Alt 13a	Change	-1	-4	-3	0	-36	28	28	-2	-2	-8	-42	3	-3
Percent change in volume from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Table H-2.8. Wolford Mountain Reservoir End-of-Month Elevations (feet)

Elevation Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		7,477	7,477	7,476	7,474	7,473	7,473	7,476	7,484	7,485	7,484	7,481	7,478	7,478
No Act	Elevation	7,477	7,476	7,476	7,474	7,473	7,473	7,475	7,484	7,485	7,483	7,481	7,478	7,478
Alt 1a	Elevation	7,477	7,476	7,476	7,474	7,473	7,473	7,475	7,484	7,485	7,484	7,481	7,478	7,478
Alt 1c	Elevation	7,477	7,476	7,476	7,474	7,473	7,473	7,475	7,484	7,485	7,484	7,481	7,478	7,478
Alt 8a	Elevation	7,477	7,476	7,476	7,474	7,473	7,473	7,475	7,484	7,485	7,484	7,481	7,478	7,478
Alt 10a	Elevation	7,477	7,476	7,476	7,474	7,473	7,473	7,475	7,484	7,485	7,484	7,481	7,478	7,478
Alt 13a	Elevation	7,477	7,476	7,476	7,474	7,473	7,473	7,475	7,484	7,485	7,484	7,481	7,478	7,478
Elevation change from Full Use Existing System														
No Act	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 1a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 1c	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 8a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 10a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 13a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		7,477	7,476	7,476	7,474	7,474	7,474	7,474	7,481	7,481	7,480	7,475	7,462	7,475
No Act	Elevation	7,477	7,476	7,476	7,474	7,474	7,474	7,474	7,481	7,481	7,480	7,475	7,462	7,475
Alt 1a	Elevation	7,477	7,476	7,476	7,474	7,474	7,474	7,474	7,481	7,481	7,480	7,475	7,462	7,475
Alt 1c	Elevation	7,477	7,476	7,476	7,474	7,474	7,474	7,474	7,481	7,481	7,480	7,475	7,462	7,475
Alt 8a	Elevation	7,477	7,476	7,476	7,474	7,474	7,474	7,474	7,481	7,481	7,480	7,475	7,462	7,475
Alt 10a	Elevation	7,477	7,476	7,476	7,474	7,474	7,474	7,474	7,481	7,481	7,480	7,475	7,462	7,475
Alt 13a	Elevation	7,477	7,476	7,476	7,474	7,474	7,474	7,474	7,481	7,481	7,480	7,475	7,462	7,475
Elevation change from Full Use Existing System														
No Act	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 1a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 1c	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 8a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 10a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 13a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		7,482	7,481	7,481	7,480	7,480	7,478	7,486	7,488	7,488	7,487	7,486	7,484	7,483
No Act	Elevation	7,482	7,481	7,481	7,480	7,480	7,478	7,486	7,488	7,488	7,487	7,486	7,484	7,483
Alt 1a	Elevation	7,482	7,481	7,481	7,480	7,480	7,478	7,486	7,488	7,488	7,487	7,486	7,484	7,483
Alt 1c	Elevation	7,482	7,481	7,481	7,480	7,480	7,478	7,486	7,488	7,488	7,487	7,486	7,484	7,483
Alt 8a	Elevation	7,482	7,481	7,481	7,480	7,480	7,478	7,486	7,488	7,488	7,487	7,486	7,484	7,483
Alt 10a	Elevation	7,482	7,481	7,481	7,480	7,480	7,478	7,486	7,488	7,488	7,487	7,486	7,484	7,483
Alt 13a	Elevation	7,482	7,481	7,481	7,480	7,480	7,478	7,486	7,488	7,488	7,487	7,486	7,484	7,483
Elevation change from Full Use Existing System														
No Act	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 1a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 1c	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 8a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 10a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 13a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0

Table H-2.9. Wolford Mountain Reservoir End-of-Month Surface Area (acres)

Surface Area Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		1,267	1,256	1,245	1,212	1,199	1,188	1,250	1,420	1,445	1,414	1,361	1,292	1,296
No Act	Surface Area	1,263	1,251	1,240	1,209	1,197	1,185	1,247	1,418	1,443	1,412	1,358	1,286	1,292
Alt 1a	Surface Area	1,263	1,252	1,241	1,210	1,197	1,186	1,248	1,419	1,443	1,413	1,359	1,287	1,293
Alt 1c	Surface Area	1,263	1,252	1,241	1,210	1,197	1,186	1,248	1,419	1,443	1,413	1,359	1,287	1,293
Alt 8a	Surface Area	1,264	1,252	1,241	1,210	1,197	1,186	1,248	1,419	1,443	1,413	1,359	1,288	1,293
Alt 10a	Surface Area	1,264	1,252	1,241	1,210	1,197	1,186	1,248	1,419	1,443	1,413	1,359	1,288	1,293
Alt 13a	Surface Area	1,264	1,252	1,241	1,210	1,197	1,186	1,248	1,419	1,443	1,413	1,359	1,288	1,293
Surface area change from Full Use Existing System														
No Act	Change	-4	-4	-4	-3	-3	-3	-3	-2	-2	-2	-3	-6	-3
Alt 1a	Change	-4	-4	-4	-2	-2	-2	-2	-2	-2	-1	-2	-5	-3
Alt 1c	Change	-4	-4	-4	-3	-2	-2	-2	-2	-2	-1	-2	-5	-3
Alt 8a	Change	-4	-4	-4	-2	-2	-2	-2	-2	-2	-1	-2	-5	-3
Alt 10a	Change	-4	-4	-4	-2	-2	-2	-2	-2	-2	-1	-2	-5	-3
Alt 13a	Change	-4	-4	-4	-2	-2	-2	-2	-1	-1	-1	-2	-5	-2
Percent change in surface area from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		1,258	1,247	1,237	1,218	1,212	1,202	1,202	1,348	1,357	1,315	1,194	953	1,229
No Act	Surface Area	1,257	1,246	1,236	1,218	1,212	1,202	1,202	1,348	1,357	1,315	1,194	952	1,228
Alt 1a	Surface Area	1,257	1,246	1,236	1,218	1,212	1,202	1,202	1,348	1,357	1,315	1,194	952	1,228
Alt 1c	Surface Area	1,257	1,246	1,236	1,218	1,212	1,202	1,202	1,348	1,357	1,315	1,194	952	1,228
Alt 8a	Surface Area	1,257	1,246	1,236	1,218	1,212	1,202	1,202	1,348	1,357	1,315	1,194	952	1,228
Alt 10a	Surface Area	1,257	1,246	1,236	1,218	1,212	1,202	1,202	1,348	1,357	1,315	1,194	952	1,228
Alt 13a	Surface Area	1,257	1,246	1,236	1,218	1,212	1,202	1,202	1,348	1,357	1,315	1,194	952	1,228
Surface area change from Full Use Existing System														
No Act	Change	-1	-1	-1	0	0	0	0	0	0	0	0	-1	0
Alt 1a	Change	-1	-1	-1	0	0	0	0	0	0	0	0	-1	0
Alt 1c	Change	-1	-1	-1	0	0	0	0	0	0	0	0	-1	0
Alt 8a	Change	-1	-1	-1	0	0	0	0	0	0	0	0	-1	0
Alt 10a	Change	-1	-1	-1	0	0	0	0	0	0	0	0	-1	0
Alt 13a	Change	-1	-1	-1	0	0	0	0	0	0	0	0	-1	0
Percent change in surface area from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		1,370	1,358	1,346	1,335	1,328	1,281	1,469	1,533	1,531	1,487	1,470	1,429	1,411
No Act	Surface Area	1,369	1,358	1,346	1,335	1,327	1,282	1,469	1,533	1,531	1,487	1,470	1,429	1,411
Alt 1a	Surface Area	1,370	1,358	1,346	1,335	1,327	1,282	1,469	1,533	1,531	1,487	1,469	1,429	1,411
Alt 1c	Surface Area	1,370	1,358	1,346	1,335	1,327	1,282	1,469	1,533	1,531	1,487	1,469	1,429	1,411
Alt 8a	Surface Area	1,370	1,358	1,346	1,335	1,327	1,282	1,469	1,533	1,531	1,487	1,469	1,429	1,411
Alt 10a	Surface Area	1,370	1,358	1,346	1,335	1,327	1,282	1,469	1,533	1,531	1,487	1,469	1,429	1,411
Alt 13a	Surface Area	1,370	1,358	1,346	1,335	1,327	1,282	1,469	1,533	1,531	1,487	1,469	1,429	1,411
Surface area change from Full Use Existing System														
No Act	Change	0	0	0	0	-1	1	1	0	0	0	0	0	0
Alt 1a	Change	0	0	0	0	-1	1	1	0	0	0	-1	0	0
Alt 1c	Change	0	0	0	0	-1	1	1	0	0	0	-1	0	0
Alt 8a	Change	0	0	0	0	-1	1	0	0	0	0	-1	0	0
Alt 10a	Change	0	0	0	0	-1	1	0	0	0	0	-1	0	0
Alt 13a	Change	0	0	0	0	-1	1	0	0	0	0	-1	0	0
Percent change in surface area from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Table H-2.10. Gross Reservoir End-of-Month Storage Content (AF)

Content Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		28,319	27,910	27,968	28,876	29,608	23,765	22,208	28,440	39,381	35,392	31,815	29,989	29,473
No Act	Content	27,184	26,650	26,645	27,534	28,267	22,016	20,452	26,897	38,458	34,460	30,876	28,999	28,203
Alt 1a	Content	93,715	90,124	85,863	81,393	77,409	73,174	69,472	81,240	102,057	102,457	99,506	97,422	87,819
Alt 1c	Content	63,923	60,356	56,190	51,966	48,200	44,266	41,205	52,464	72,246	72,543	69,699	67,617	58,390
Alt 8a	Content	75,696	72,258	68,117	63,805	59,983	55,962	52,430	64,199	84,721	84,543	81,289	79,236	70,187
Alt 10a	Content	75,738	72,303	68,173	63,863	60,042	56,012	52,474	64,237	84,756	84,554	81,305	79,271	70,227
Alt 13a	Content	83,104	79,608	75,398	70,935	66,960	62,771	59,149	70,857	91,622	91,775	88,728	86,688	77,300
Content change from Full Use Existing System														
No Act	Change	-1,135	-1,260	-1,323	-1,342	-1,342	-1,750	-1,756	-1,542	-922	-932	-938	-990	-1,269
Alt 1a	Change	65,396	62,214	57,896	52,517	47,801	49,409	47,264	52,801	62,676	67,064	67,691	67,433	58,347
Alt 1c	Change	35,604	32,446	28,222	23,090	18,592	20,501	18,997	24,024	32,865	37,151	37,885	37,628	28,917
Alt 8a	Change	47,377	44,348	40,150	34,929	30,375	32,197	30,221	35,759	45,340	49,151	49,475	49,247	40,714
Alt 10a	Change	47,419	44,393	40,206	34,987	30,434	32,247	30,266	35,797	45,375	49,162	49,490	49,282	40,755
Alt 13a	Change	54,785	51,699	47,430	42,059	37,352	39,006	36,941	42,417	52,242	56,382	56,914	56,699	47,827
Percent change in volume from Full Use Existing System														
No Act	% Change	-4%	-5%	-5%	-5%	-5%	-7%	-8%	-5%	-2%	-3%	-3%	-3%	-4%
Alt 1a	% Change	231%	223%	207%	182%	161%	208%	213%	186%	159%	189%	213%	225%	198%
Alt 1c	% Change	126%	116%	101%	80%	63%	86%	86%	84%	83%	105%	119%	125%	98%
Alt 8a	% Change	167%	159%	144%	121%	103%	135%	136%	126%	115%	139%	156%	164%	138%
Alt 10a	% Change	167%	159%	144%	121%	103%	136%	136%	126%	115%	139%	156%	164%	138%
Alt 13a	% Change	193%	185%	170%	146%	126%	164%	166%	149%	133%	159%	179%	189%	162%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Full Use Existing System		28,136	27,518	27,353	28,071	28,673	22,499	22,077	24,711	35,574	30,745	27,077	24,955	27,283
No Act	Content	27,068	26,275	26,009	26,727	27,329	20,483	19,757	22,051	33,166	28,522	25,048	22,810	25,437
Alt 1a	Content	97,536	93,901	89,583	85,062	81,128	76,922	73,489	77,317	90,879	88,446	85,065	81,688	85,085
Alt 1c	Content	66,457	62,821	58,495	54,040	50,137	45,959	42,586	46,326	59,622	57,715	54,624	51,285	54,172
Alt 8a	Content	77,661	74,053	69,730	65,208	61,275	57,089	53,660	57,476	71,132	69,111	66,204	63,560	65,513
Alt 10a	Content	77,685	74,076	69,753	65,232	61,298	57,108	53,683	57,499	71,157	69,134	66,223	63,566	65,535
Alt 13a	Content	85,645	82,026	77,703	73,182	69,249	65,059	61,632	65,445	79,084	77,014	74,055	71,327	73,452
Content Change from Full Use Existing System														
No Act	Change	-1,068	-1,244	-1,345	-1,345	-1,345	-2,016	-2,319	-2,660	-2,408	-2,223	-2,030	-2,145	-1,846
Alt 1a	Change	69,400	66,382	62,230	56,991	52,455	54,423	51,412	52,606	55,305	57,702	57,987	56,733	57,802
Alt 1c	Change	38,321	35,303	31,141	25,969	21,463	23,460	20,509	21,614	24,048	26,970	27,546	26,330	26,890
Alt 8a	Change	49,526	46,534	42,377	37,137	32,602	34,590	31,583	32,765	35,558	38,366	39,127	38,605	38,231
Alt 10a	Change	49,549	46,557	42,400	37,160	32,625	34,610	31,607	32,788	35,583	38,389	39,146	38,611	38,252
Alt 13a	Change	57,509	54,507	50,350	45,111	40,575	42,560	39,555	40,733	43,510	46,269	46,978	46,371	46,169
Percent change in volume from Full Use Existing System														
No Act	% Change	-4%	-5%	-5%	-5%	-5%	-9%	-11%	-11%	-7%	-7%	-7%	-9%	-7%
Alt 1a	% Change	247%	241%	228%	203%	183%	242%	233%	213%	155%	188%	214%	227%	212%
Alt 1c	% Change	136%	128%	114%	93%	75%	104%	93%	87%	68%	88%	102%	106%	99%
Alt 8a	% Change	176%	169%	155%	132%	114%	154%	143%	133%	100%	125%	145%	155%	140%
Alt 10a	% Change	176%	169%	155%	132%	114%	154%	143%	133%	100%	125%	145%	155%	140%
Alt 13a	% Change	204%	198%	184%	161%	142%	189%	179%	165%	122%	150%	173%	186%	169%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Full Use Existing System		28,344	28,288	28,647	29,773	30,694	25,039	24,158	37,395	41,809	40,486	36,546	34,243	32,119
No Act	Content	27,045	26,789	27,047	28,173	29,094	22,776	21,887	35,876	41,809	40,209	36,260	33,753	30,893
Alt 1a	Content	100,732	97,611	93,838	89,765	86,124	82,329	80,469	99,798	113,738	112,713	109,095	106,667	97,740
Alt 1c	Content	69,792	66,658	62,890	58,808	55,145	51,331	49,359	68,453	82,438	81,504	78,121	75,762	66,688
Alt 8a	Content	80,928	77,825	74,052	69,979	66,338	62,542	60,693	80,011	93,764	92,773	89,126	86,706	77,895
Alt 10a	Content	80,927	77,824	74,051	69,978	66,337	62,541	60,680	80,007	93,764	92,700	89,097	86,722	77,886
Alt 13a	Content	88,846	85,736	81,963	77,890	74,249	70,454	68,502	87,828	101,757	100,745	97,103	94,703	85,815
Content Change from Full Use Existing System														
No Act	Change	-1,299	-1,499	-1,600	-1,600	-1,600	-2,263	-2,271	-1,519	0	-277	-286	-490	-1,225
Alt 1a	Change	72,388	69,323	65,191	59,992	55,430	57,290	56,311	62,403	71,929	72,226	72,548	72,424	65,621
Alt 1c	Change	41,448	38,370	34,242	29,035	24,451	26,292	25,201	31,058	40,629	41,017	41,575	41,519	34,570
Alt 8a	Change	52,584	49,537	45,405	40,206	35,644	37,504	36,535	42,617	51,955	52,286	52,580	52,464	45,776
Alt 10a	Change	52,583	49,536	45,404	40,205	35,643	37,503	36,522	42,612	51,955	52,214	52,551	52,479	45,767
Alt 13a	Change	60,502	57,448	53,316	48,117	43,555	45,415	44,344	50,433	59,948	60,259	60,557	60,461	53,696
Percent change in volume from Full Use Existing System														
No Act	% Change	-5%	-5%	-6%	-5%	-5%	-9%	-9%	-4%	0%	-1%	-1%	-1%	-4%
Alt 1a	% Change	255%	245%	228%	201%	181%	229%	233%	167%	172%	178%	199%	212%	204%
Alt 1c	% Change	146%	136%	120%	98%	80%	105%	104%	83%	97%	101%	114%	121%	108%
Alt 8a	% Change	186%	175%	158%	135%	116%	150%	151%	114%	124%	129%	144%	153%	143%
Alt 10a	% Change	186%	175%	158%	135%	116%	150%	151%	114%	124%	129%	144%	153%	142%
Alt 13a	% Change	213%	203%	186%	162%	142%	181%	184%	135%	143%	149%	166%	177%	167%

Table H-2.11. Gross Reservoir End-of-Month Elevations (ft)

Elevation Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		7,244	7,242	7,242	7,245	7,248	7,228	7,222	7,241	7,275	7,264	7,255	7,249	7,246
No Act	Elevation	7,239	7,238	7,238	7,241	7,243	7,221	7,215	7,235	7,273	7,261	7,251	7,245	7,242
Alt 1a	Elevation	7,369	7,363	7,356	7,348	7,341	7,333	7,326	7,348	7,382	7,383	7,378	7,375	7,358
Alt 1c	Elevation	7,320	7,314	7,306	7,298	7,290	7,282	7,275	7,298	7,334	7,335	7,330	7,327	7,309
Alt 8a	Elevation	7,340	7,334	7,327	7,319	7,312	7,305	7,298	7,319	7,354	7,354	7,349	7,346	7,330
Alt 10a	Elevation	7,340	7,334	7,327	7,319	7,312	7,305	7,298	7,319	7,354	7,354	7,349	7,346	7,330
Alt 13a	Elevation	7,352	7,346	7,339	7,331	7,324	7,316	7,309	7,330	7,365	7,366	7,361	7,358	7,341
Elevation change from Full Use Existing System														
No Act	Change	-4	-5	-5	-5	-5	-7	-7	-6	-3	-3	-3	-4	-5
Alt 1a	Change	125	120	113	103	94	105	105	107	106	118	124	126	112
Alt 1c	Change	76	71	63	52	43	54	53	57	59	70	76	77	63
Alt 8a	Change	96	92	84	74	65	77	76	79	79	90	94	97	83
Alt 10a	Change	96	92	84	74	65	77	76	79	79	90	94	96	83
Alt 13a	Change	108	104	96	86	76	88	87	89	90	101	106	108	95
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Full Use Existing System		7,244	7,242	7,242	7,244	7,246	7,225	7,223	7,233	7,265	7,251	7,240	7,232	7,240
No Act	Elevation	7,241	7,238	7,237	7,239	7,241	7,217	7,214	7,223	7,258	7,243	7,231	7,222	7,234
Alt 1a	Elevation	7,375	7,369	7,362	7,355	7,349	7,342	7,337	7,343	7,364	7,361	7,355	7,350	7,355
Alt 1c	Elevation	7,325	7,319	7,313	7,305	7,298	7,290	7,283	7,291	7,314	7,311	7,305	7,298	7,304
Alt 8a	Elevation	7,343	7,337	7,331	7,323	7,317	7,310	7,305	7,311	7,333	7,330	7,325	7,320	7,324
Alt 10a	Elevation	7,343	7,338	7,331	7,323	7,317	7,310	7,305	7,311	7,333	7,330	7,325	7,320	7,324
Alt 13a	Elevation	7,356	7,350	7,343	7,336	7,330	7,323	7,318	7,324	7,346	7,342	7,337	7,333	7,337
Elevation change from Full Use Existing System														
No Act	Change	-4	-4	-4	-4	-5	-8	-9	-9	-8	-8	-8	-9	-7
Alt 1a	Change	131	127	121	111	103	117	113	110	99	110	115	118	115
Alt 1c	Change	81	77	71	62	52	66	60	59	49	60	65	66	64
Alt 8a	Change	99	95	89	79	71	85	81	78	68	79	85	89	83
Alt 10a	Change	99	95	89	79	71	86	81	78	68	79	85	89	83
Alt 13a	Change	112	108	102	92	84	98	94	91	80	91	98	102	96
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Full Use Existing System		7,244	7,244	7,245	7,248	7,251	7,232	7,229	7,269	7,282	7,279	7,268	7,262	7,254
No Act	Elevation	7,239	7,238	7,239	7,243	7,246	7,223	7,220	7,264	7,282	7,278	7,267	7,261	7,250
Alt 1a	Elevation	7,380	7,375	7,369	7,363	7,357	7,351	7,348	7,378	7,400	7,399	7,393	7,390	7,375
Alt 1c	Elevation	7,331	7,326	7,320	7,313	7,307	7,301	7,297	7,328	7,351	7,349	7,344	7,340	7,326
Alt 8a	Elevation	7,348	7,344	7,337	7,331	7,325	7,319	7,316	7,347	7,369	7,367	7,362	7,358	7,344
Alt 10a	Elevation	7,348	7,344	7,337	7,331	7,325	7,319	7,316	7,347	7,369	7,367	7,362	7,358	7,344
Alt 13a	Elevation	7,361	7,356	7,350	7,344	7,338	7,332	7,329	7,360	7,382	7,380	7,374	7,371	7,356
Elevation change from Full Use Existing System														
No Act	Change	-5	-6	-6	-6	-6	-9	-9	-5	0	-1	-1	-1	-4
Alt 1a	Change	136	131	124	114	106	119	119	110	118	120	125	128	121
Alt 1c	Change	87	82	75	65	56	68	68	60	69	71	76	78	71
Alt 8a	Change	105	100	93	83	74	87	87	78	87	89	93	96	89
Alt 10a	Change	105	100	93	83	74	87	87	78	87	88	93	96	89
Alt 13a	Change	117	113	105	95	87	99	100	91	100	101	106	109	102

Table H-2.12. Gross Reservoir End-of-Month Surface Area (acres)

Surface Area Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		317	313	314	321	326	280	267	313	397	368	343	330	324
No Act	Surface Area	307	303	303	310	316	265	252	301	390	361	336	321	314
Alt 1a	Surface Area	700	680	657	632	610	586	565	631	743	746	731	720	667
Alt 1c	Surface Area	538	518	494	469	447	423	404	471	584	586	571	559	505
Alt 8a	Surface Area	603	584	561	536	515	492	471	538	651	651	633	622	571
Alt 10a	Surface Area	603	584	561	537	515	492	471	538	652	651	633	622	572
Alt 13a	Surface Area	643	624	600	575	553	529	508	574	689	690	673	662	610
Surface area change from Full Use Existing System														
No Act	Change	-10	-11	-11	-11	-11	-15	-15	-13	-7	-7	-8	-8	-10
Alt 1a	Change	383	367	343	311	284	306	298	317	346	378	388	390	343
Alt 1c	Change	221	204	180	149	121	143	137	157	188	218	227	229	181
Alt 8a	Change	286	270	247	216	188	211	204	224	255	282	290	292	247
Alt 10a	Change	286	271	247	216	189	212	205	225	255	282	290	293	247
Alt 13a	Change	326	310	286	255	226	249	241	261	292	321	330	333	286
Percent change in surface area from Full Use Existing System														
No Act	% Change	-3%	-3%	-3%	-3%	-3%	-5%	-6%	-4%	-2%	-2%	-2%	-3%	-3%
Alt 1a	% Change	121%	117%	109%	97%	87%	109%	112%	101%	87%	103%	113%	118%	106%
Alt 1c	% Change	70%	65%	57%	46%	37%	51%	51%	50%	47%	59%	66%	70%	56%
Alt 8a	% Change	90%	86%	79%	67%	58%	76%	77%	72%	64%	77%	84%	89%	76%
Alt 10a	% Change	90%	86%	79%	67%	58%	76%	77%	72%	64%	77%	84%	89%	76%
Alt 13a	% Change	103%	99%	91%	79%	69%	89%	90%	83%	73%	87%	96%	101%	88%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Full Use Existing System		316	312	310	316	321	271	268	289	370	334	307	289	309
No Act	Surface Area	308	302	300	305	310	254	248	267	351	316	289	270	293
Alt 1a	Surface Area	721	701	678	654	633	610	592	612	685	672	654	636	654
Alt 1c	Surface Area	554	534	511	487	465	441	419	443	517	506	488	467	486
Alt 8a	Surface Area	614	595	571	547	526	503	485	506	579	568	552	538	549
Alt 10a	Surface Area	614	595	571	547	526	504	485	506	579	568	553	538	549
Alt 13a	Surface Area	657	637	614	590	569	546	528	548	622	610	595	580	591
Surface area change from Full Use Existing System														
No Act	Change	-8	-10	-11	-11	-10	-17	-20	-22	-18	-18	-18	-20	-15
Alt 1a	Change	404	389	367	338	312	339	324	323	315	337	347	346	345
Alt 1c	Change	237	223	201	171	144	169	152	154	147	172	181	177	177
Alt 8a	Change	297	283	261	231	205	232	217	216	209	234	245	249	240
Alt 10a	Change	298	283	261	231	206	232	217	217	209	234	246	249	240
Alt 13a	Change	340	326	304	274	248	275	260	259	252	276	288	290	283
Percent change in surface area from Full Use Existing System														
No Act	% Change	-3%	-3%	-3%	-3%	-3%	-6%	-7%	-7%	-5%	-5%	-6%	-7%	-5%
Alt 1a	% Change	128%	125%	118%	107%	97%	125%	121%	112%	85%	101%	113%	120%	112%
Alt 1c	% Change	75%	71%	65%	54%	45%	62%	57%	53%	40%	51%	59%	61%	57%
Alt 8a	% Change	94%	91%	84%	73%	64%	86%	81%	75%	57%	70%	80%	86%	78%
Alt 10a	% Change	94%	91%	84%	73%	64%	86%	81%	75%	57%	70%	80%	86%	78%
Alt 13a	% Change	108%	104%	98%	87%	77%	101%	97%	90%	68%	83%	94%	100%	92%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Full Use Existing System		317	316	319	328	334	290	283	381	414	405	378	361	344
No Act	Surface Area	306	304	306	315	322	271	263	369	414	403	376	358	334
Alt 1a	Surface Area	738	721	701	679	659	639	629	732	804	800	781	770	721
Alt 1c	Surface Area	572	555	535	513	493	472	460	564	640	635	616	604	555
Alt 8a	Surface Area	631	615	595	573	553	533	523	627	700	695	675	662	615
Alt 10a	Surface Area	631	615	595	573	553	533	523	627	700	695	675	663	615
Alt 13a	Surface Area	674	657	637	615	596	575	565	668	743	738	718	705	658
Surface area change from Full Use Existing System														
No Act	Change	-11	-12	-13	-13	-13	-19	-20	-12	0	-2	-2	-3	-10
Alt 1a	Change	421	405	382	351	325	349	346	351	390	395	404	408	377
Alt 1c	Change	255	238	216	185	159	182	177	183	226	230	239	243	211
Alt 8a	Change	314	298	276	245	219	243	240	246	286	290	298	301	271
Alt 10a	Change	314	298	276	245	219	243	240	246	286	290	298	301	271
Alt 13a	Change	357	341	318	288	261	285	282	287	329	333	341	344	314
Percent change in surface area from Full Use Existing System														
No Act	% Change	-3%	-4%	-4%	-4%	-4%	-7%	-7%	-3%	0%	0%	-1%	-1%	-3%
Alt 1a	% Change	133%	128%	120%	107%	97%	120%	122%	92%	94%	98%	107%	113%	110%
Alt 1c	% Change	80%	75%	68%	57%	47%	63%	63%	48%	54%	57%	63%	67%	61%
Alt 8a	% Change	99%	94%	86%	75%	65%	84%	85%	64%	69%	72%	79%	83%	79%
Alt 10a	% Change	99%	94%	86%	75%	65%	84%	85%	64%	69%	72%	79%	83%	79%
Alt 13a	% Change	113%	108%	100%	88%	78%	98%	100%	75%	80%	82%	90%	95%	91%

Table H-2.13. Antero Reservoir End-of-Month Storage Content (AF)

Content Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		18,141	18,128	18,045	17,934	17,889	17,896	17,998	17,912	18,101	18,389	18,443	18,282	18,096
No Act	Content	17,540	17,496	17,331	17,177	17,105	17,105	17,144	17,101	17,414	17,746	17,939	17,818	17,410
Alt 1a	Content	17,803	17,826	17,752	17,633	17,550	17,560	17,659	17,594	17,798	18,142	18,215	17,957	17,791
Alt 1c	Content	17,803	17,822	17,750	17,635	17,553	17,562	17,659	17,593	17,799	18,140	18,209	17,956	17,790
Alt 8a	Content	17,820	17,840	17,771	17,652	17,570	17,579	17,677	17,591	17,805	18,147	18,218	17,972	17,804
Alt 10a	Content	17,822	17,840	17,771	17,649	17,567	17,576	17,674	17,591	17,806	18,145	18,223	17,974	17,803
Alt 13a	Content	17,823	17,847	17,768	17,653	17,575	17,585	17,683	17,609	17,815	18,159	18,234	17,974	17,810
Content change from Full Use Existing System														
No Act	Change	-601	-632	-714	-757	-784	-791	-855	-810	-687	-644	-504	-464	-687
Alt 1a	Change	-338	-302	-292	-301	-339	-336	-339	-318	-303	-248	-228	-325	-306
Alt 1c	Change	-338	-306	-294	-299	-336	-334	-339	-319	-302	-250	-234	-326	-307
Alt 8a	Change	-320	-288	-274	-282	-319	-317	-321	-321	-296	-242	-225	-310	-293
Alt 10a	Change	-319	-287	-274	-285	-322	-320	-324	-321	-296	-245	-220	-308	-293
Alt 13a	Change	-318	-281	-276	-281	-314	-311	-315	-303	-287	-231	-209	-308	-286
Percent change in volume from Full Use Existing System														
No Act	% Change	-3%	-3%	-4%	-4%	-4%	-4%	-5%	-5%	-4%	-4%	-3%	-3%	-4%
Alt 1a	% Change	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-1%	-1%	-2%	-2%
Alt 1c	% Change	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-1%	-1%	-2%	-2%
Alt 8a	% Change	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-1%	-1%	-2%	-2%
Alt 10a	% Change	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-1%	-1%	-2%	-2%
Alt 13a	% Change	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-1%	-1%	-2%	-2%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Full Use Existing System		19,519	19,611	19,646	19,667	19,686	19,716	19,729	19,475	19,391	19,345	18,692	18,278	19,396
No Act	Content	19,516	19,610	19,645	19,665	19,670	19,715	19,728	19,629	19,415	19,252	18,809	18,319	19,414
Alt 1a	Content	19,519	19,610	19,646	19,662	19,664	19,715	19,728	19,527	19,383	19,327	18,670	18,007	19,372
Alt 1c	Content	19,519	19,610	19,646	19,662	19,670	19,715	19,728	19,526	19,385	19,330	18,627	18,017	19,370
Alt 8a	Content	19,520	19,610	19,646	19,663	19,672	19,715	19,729	19,526	19,381	19,326	18,694	18,048	19,377
Alt 10a	Content	19,520	19,610	19,646	19,664	19,674	19,715	19,729	19,526	19,380	19,326	18,723	18,049	19,380
Alt 13a	Content	19,516	19,610	19,646	19,663	19,672	19,715	19,728	19,526	19,383	19,322	18,699	18,046	19,377
Content Change from Full Use Existing System														
No Act	Change	-3	-1	-1	-2	-16	-1	-1	154	24	-94	117	42	18
Alt 1a	Change	0	0	0	-5	-22	0	-1	52	-8	-18	-22	-271	-25
Alt 1c	Change	0	0	0	-5	-16	0	-1	51	-6	-16	-65	-261	-27
Alt 8a	Change	0	0	0	-5	-14	0	-1	51	-10	-20	2	-230	-19
Alt 10a	Change	0	0	0	-3	-12	0	-1	51	-10	-20	31	-229	-16
Alt 13a	Change	-3	0	0	-5	-14	0	-1	51	-7	-23	7	-232	-19
Percent change in volume from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Full Use Existing System		19,720	19,826	19,826	19,826	19,826	19,826	19,826	19,800	19,800	19,812	19,817	19,732	19,803
No Act	Content	19,729	19,825	19,825	19,826	19,826	19,826	19,826	19,800	19,800	19,812	19,817	19,740	19,804
Alt 1a	Content	19,729	19,826	19,826	19,826	19,826	19,826	19,826	19,800	19,800	19,812	19,817	19,740	19,804
Alt 1c	Content	19,729	19,826	19,826	19,826	19,826	19,826	19,826	19,800	19,800	19,812	19,817	19,740	19,804
Alt 8a	Content	19,729	19,826	19,826	19,826	19,826	19,826	19,826	19,800	19,800	19,812	19,817	19,740	19,804
Alt 10a	Content	19,729	19,826	19,826	19,826	19,826	19,826	19,826	19,800	19,800	19,812	19,817	19,740	19,804
Alt 13a	Content	19,729	19,826	19,826	19,826	19,826	19,826	19,826	19,800	19,800	19,812	19,817	19,740	19,804
Content Change from Full Use Existing System														
No Act	Change	8	0	-1	0	0	0	0	0	0	0	0	8	1
Alt 1a	Change	9	0	0	0	0	0	0	0	0	0	0	9	1
Alt 1c	Change	8	0	0	0	0	0	0	0	0	0	0	8	1
Alt 8a	Change	9	0	0	0	0	0	0	0	0	0	0	9	1
Alt 10a	Change	9	0	0	0	0	0	0	0	0	0	0	9	1
Alt 13a	Change	9	0	0	0	0	0	0	0	0	0	0	9	1
Percent change in volume from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Table H-2.14. Antero Reservoir End-of-Month Elevations (feet)

Elevation Change and % Change are based on comparisons to Full Use Existing System

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941
No Act	Elevation	8,941	8,941	8,941	8,940	8,940	8,940	8,940	8,940	8,940	8,941	8,941	8,941	8,941
Alt 1a	Elevation	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941
Alt 1c	Elevation	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941
Alt 8a	Elevation	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941
Alt 10a	Elevation	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941
Alt 13a	Elevation	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941	8,941
Elevation change from Full Use Existing System														
No Act	Change	0	0	0	-1	-1	-1	-1	-1	0	0	0	0	0
Alt 1a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 1c	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 8a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 10a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 13a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Full Use Existing System		8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,941	8,942
No Act	Elevation	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,941	8,942
Alt 1a	Elevation	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,941	8,942
Alt 1c	Elevation	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,941	8,942
Alt 8a	Elevation	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,941	8,942
Alt 10a	Elevation	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,941	8,942
Alt 13a	Elevation	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,941	8,942
Elevation change from Full Use Existing System														
No Act	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 1a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 1c	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 8a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 10a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 13a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Full Use Existing System		8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942
No Act	Elevation	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942
Alt 1a	Elevation	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942
Alt 1c	Elevation	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942
Alt 8a	Elevation	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942
Alt 10a	Elevation	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942
Alt 13a	Elevation	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942	8,942
Elevation change from Full Use Existing System														
No Act	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 1a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 1c	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 8a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 10a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 13a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0

Table H-2.15. Antero Reservoir End-of-Month Surface Area (acres)

Surface Area Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		2,180	2,179	2,172	2,162	2,153	2,141	2,147	2,142	2,153	2,191	2,199	2,189	2,167
No Act	Surface Area	2,140	2,133	2,112	2,084	2,073	2,066	2,070	2,069	2,104	2,143	2,165	2,157	2,110
Alt 1a	Surface Area	2,158	2,158	2,153	2,143	2,136	2,134	2,138	2,126	2,140	2,176	2,186	2,169	2,151
Alt 1c	Surface Area	2,158	2,158	2,153	2,143	2,136	2,134	2,137	2,125	2,140	2,175	2,185	2,169	2,151
Alt 8a	Surface Area	2,159	2,159	2,154	2,144	2,137	2,135	2,139	2,125	2,141	2,176	2,186	2,170	2,152
Alt 10a	Surface Area	2,159	2,159	2,154	2,144	2,137	2,135	2,138	2,125	2,141	2,176	2,186	2,170	2,152
Alt 13a	Surface Area	2,160	2,160	2,154	2,145	2,138	2,136	2,140	2,127	2,142	2,177	2,187	2,170	2,153
Surface area change from Full Use Existing System														
No Act	Change	-41	-46	-60	-77	-80	-75	-77	-73	-49	-48	-34	-32	-58
Alt 1a	Change	-22	-20	-19	-19	-17	-6	-9	-16	-12	-15	-14	-20	-16
Alt 1c	Change	-22	-21	-19	-19	-17	-6	-9	-16	-12	-15	-14	-20	-16
Alt 8a	Change	-21	-19	-18	-18	-16	-5	-8	-16	-12	-15	-13	-19	-15
Alt 10a	Change	-21	-19	-18	-18	-16	-5	-8	-16	-12	-15	-13	-19	-15
Alt 13a	Change	-21	-19	-18	-17	-15	-4	-7	-14	-11	-14	-12	-19	-14
Percent change in surface area from Full Use Existing System														
No Act	% Change	-2%	-2%	-3%	-4%	-4%	-3%	-4%	-3%	-2%	-2%	-2%	-1%	-3%
Alt 1a	% Change	-1%	-1%	-1%	-1%	-1%	0%	0%	-1%	-1%	-1%	-1%	-1%	-1%
Alt 1c	% Change	-1%	-1%	-1%	-1%	-1%	0%	0%	-1%	-1%	-1%	-1%	-1%	-1%
Alt 8a	% Change	-1%	-1%	-1%	-1%	-1%	0%	0%	-1%	-1%	-1%	-1%	-1%	-1%
Alt 10a	% Change	-1%	-1%	-1%	-1%	-1%	0%	0%	-1%	-1%	-1%	-1%	-1%	-1%
Alt 13a	% Change	-1%	-1%	-1%	-1%	-1%	0%	0%	-1%	-1%	-1%	-1%	-1%	-1%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Full Use Existing System		2,309	2,314	2,316	2,317	2,318	2,320	2,321	2,308	2,303	2,301	2,263	2,239	2,302
No Act	Surface Area	2,309	2,314	2,316	2,317	2,318	2,320	2,321	2,316	2,304	2,295	2,270	2,241	2,303
Alt 1a	Surface Area	2,309	2,314	2,316	2,317	2,317	2,320	2,321	2,310	2,302	2,300	2,262	2,223	2,301
Alt 1c	Surface Area	2,309	2,314	2,316	2,317	2,318	2,320	2,321	2,310	2,303	2,300	2,259	2,224	2,301
Alt 8a	Surface Area	2,309	2,314	2,316	2,317	2,318	2,320	2,321	2,310	2,302	2,300	2,263	2,225	2,301
Alt 10a	Surface Area	2,309	2,314	2,316	2,317	2,318	2,320	2,321	2,310	2,302	2,300	2,265	2,225	2,301
Alt 13a	Surface Area	2,309	2,314	2,316	2,317	2,318	2,320	2,321	2,310	2,302	2,299	2,263	2,225	2,301
Surface area change from Full Use Existing System														
No Act	Change	0	0	0	0	-1	0	0	8	2	-6	7	2	1
Alt 1a	Change	0	0	0	0	-1	0	0	2	0	-1	-1	-16	-1
Alt 1c	Change	0	0	0	0	-1	0	0	2	0	-1	-4	-15	-2
Alt 8a	Change	0	0	0	0	-1	0	0	2	-1	-1	0	-13	-1
Alt 10a	Change	0	0	0	0	-1	0	0	2	-1	-1	2	-13	-1
Alt 13a	Change	0	0	0	0	-1	0	0	2	0	-1	0	-13	-1
Percent change in surface area from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Full Use Existing System		2,321	2,326	2,326	2,326	2,326	2,326	2,326	2,325	2,325	2,325	2,326	2,321	2,325
No Act	Surface Area	2,321	2,326	2,326	2,326	2,326	2,326	2,326	2,325	2,325	2,325	2,326	2,322	2,325
Alt 1a	Surface Area	2,321	2,326	2,326	2,326	2,326	2,326	2,326	2,325	2,325	2,325	2,326	2,322	2,325
Alt 1c	Surface Area	2,321	2,326	2,326	2,326	2,326	2,326	2,326	2,325	2,325	2,325	2,326	2,322	2,325
Alt 8a	Surface Area	2,321	2,326	2,326	2,326	2,326	2,326	2,326	2,325	2,325	2,325	2,326	2,322	2,325
Alt 10a	Surface Area	2,321	2,326	2,326	2,326	2,326	2,326	2,326	2,325	2,325	2,325	2,326	2,322	2,325
Alt 13a	Surface Area	2,321	2,326	2,326	2,326	2,326	2,326	2,326	2,325	2,325	2,325	2,326	2,322	2,325
Surface area change from Full Use Existing System														
No Act	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 1a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 1c	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 8a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 10a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 13a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent change in surface area from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Table H-2.16. Eleven Mile Canyon Reservoir End-of-Month Storage Content (AF)

Content Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		93,240	93,044	92,839	92,509	92,288	92,135	91,976	91,756	92,252	93,608	93,983	93,607	92,770
No Act	Content	91,666	91,428	91,170	90,831	90,645	90,446	90,158	89,896	90,222	91,793	92,282	92,028	91,047
Alt 1a	Content	93,500	93,281	93,093	92,752	92,601	92,572	92,532	92,299	92,545	93,894	94,313	93,841	93,102
Alt 1c	Content	93,445	93,228	93,041	92,701	92,550	92,529	92,504	92,270	92,536	93,865	94,258	93,792	93,060
Alt 8a	Content	93,541	93,325	93,135	92,786	92,630	92,569	92,549	92,319	92,586	93,904	94,337	93,884	93,130
Alt 10a	Content	93,520	93,311	93,120	92,766	92,607	92,572	92,549	92,317	92,578	93,888	94,317	93,863	93,117
Alt 13a	Content	93,518	93,303	93,115	92,772	92,618	92,599	92,582	92,355	92,594	93,924	94,339	93,865	93,132
Content change from Full Use Existing System														
No Act	Change	-1,574	-1,616	-1,669	-1,678	-1,643	-1,689	-1,817	-1,860	-2,030	-1,815	-1,701	-1,579	-1,723
Alt 1a	Change	260	238	254	243	313	437	557	543	293	285	330	234	332
Alt 1c	Change	205	185	202	192	261	393	528	514	284	257	275	184	290
Alt 8a	Change	301	282	296	277	342	434	574	563	334	296	354	276	361
Alt 10a	Change	280	267	281	257	319	436	573	561	326	280	334	256	348
Alt 13a	Change	278	260	276	263	330	464	606	599	342	316	356	257	362
Percent change in volume from Full Use Existing System														
No Act	% Change	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	1%	1%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	1%	1%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	1%	1%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	1%	1%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	1%	1%	1%	0%	0%	0%	0%	0%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Full Use Existing System		96,604	96,660	96,669	96,607	96,528	96,672	96,679	96,476	96,592	96,615	96,071	94,738	96,409
No Act	Content	96,602	96,655	96,668	96,587	96,671	96,666	96,677	96,636	96,374	96,331	94,357	92,803	96,086
Alt 1a	Content	96,600	96,661	96,679	96,674	96,671	96,672	96,679	96,528	96,540	96,621	95,878	94,642	96,404
Alt 1c	Content	96,600	96,661	96,679	96,674	96,671	96,672	96,679	96,522	96,539	96,615	95,826	94,558	96,391
Alt 8a	Content	96,601	96,661	96,679	96,673	96,671	96,672	96,679	96,530	96,538	96,621	95,926	94,705	96,413
Alt 10a	Content	96,600	96,661	96,679	96,673	96,671	96,672	96,679	96,521	96,538	96,615	95,954	94,762	96,419
Alt 13a	Content	96,598	96,661	96,679	96,673	96,674	96,672	96,679	96,524	96,538	96,621	95,908	94,679	96,409
Content Change from Full Use Existing System														
No Act	Change	-2	-5	-2	-21	144	-5	-2	160	-218	-284	-1,714	-1,935	-324
Alt 1a	Change	-3	1	10	66	143	0	0	52	-52	6	-193	-97	-6
Alt 1c	Change	-3	1	10	66	143	0	0	46	-53	0	-245	-181	-18
Alt 8a	Change	-3	1	10	66	143	0	0	54	-54	6	-146	-33	4
Alt 10a	Change	-4	1	10	66	143	0	0	45	-54	0	-118	24	10
Alt 13a	Change	-6	1	10	66	146	0	0	48	-54	6	-163	-59	0
Percent change in volume from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-2%	-2%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Full Use Existing System		96,667	96,670	96,679	96,679	96,679	96,679	96,670	96,680	97,083	96,904	96,872	96,663	96,744
No Act	Content	96,667	96,670	96,678	96,679	96,679	96,679	96,670	96,684	97,045	96,886	96,889	96,675	96,742
Alt 1a	Content	96,667	96,670	96,679	96,679	96,679	96,679	96,671	96,681	97,076	96,877	96,883	96,675	96,743
Alt 1c	Content	96,667	96,670	96,679	96,679	96,679	96,679	96,671	96,680	97,069	96,877	96,881	96,675	96,742
Alt 8a	Content	96,667	96,670	96,679	96,679	96,679	96,679	96,671	96,681	97,075	96,877	96,883	96,675	96,743
Alt 10a	Content	96,667	96,670	96,679	96,679	96,679	96,679	96,671	96,680	97,065	96,877	96,883	96,675	96,742
Alt 13a	Content	96,667	96,670	96,679	96,679	96,679	96,679	96,671	96,681	97,076	96,880	96,883	96,675	96,743
Content Change from Full Use Existing System														
No Act	Change	0	0	-1	0	0	0	0	4	-38	-18	17	12	-2
Alt 1a	Change	0	0	0	0	0	0	1	1	-6	-27	11	12	-1
Alt 1c	Change	0	0	0	0	0	0	1	0	-14	-27	8	12	-2
Alt 8a	Change	0	0	0	0	0	0	1	1	-8	-27	11	12	-1
Alt 10a	Change	0	0	0	0	0	0	1	0	-17	-27	11	12	-2
Alt 13a	Change	0	0	0	0	0	0	1	1	-6	-24	11	12	0
Percent change in volume from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Table H-2.17. Eleven Mile Canyon Reservoir End-of-Month Elevations (feet)

Elevation Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		8,595	8,595	8,595	8,595	8,595	8,594	8,594	8,594	8,595	8,595	8,595	8,595	8,595
No Act	Elevation	8,594	8,594	8,594	8,594	8,594	8,594	8,594	8,593	8,594	8,594	8,594	8,594	8,594
Alt 1a	Elevation	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595
Alt 1c	Elevation	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595
Alt 8a	Elevation	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595
Alt 10a	Elevation	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595
Alt 13a	Elevation	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595	8,595
Elevation change from Full Use Existing System														
No Act	Change	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
Alt 1a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 1c	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 8a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 10a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 13a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Full Use Existing System		8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596
No Act	Elevation	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,595	8,596
Alt 1a	Elevation	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596
Alt 1c	Elevation	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596
Alt 8a	Elevation	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596
Alt 10a	Elevation	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596
Alt 13a	Elevation	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596
Elevation change from Full Use Existing System														
No Act	Change	0	0	0	0	0	0	0	0	0	0	0	-1	0
Alt 1a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 1c	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 8a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 10a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 13a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Full Use Existing System		8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,597	8,596	8,596	8,596	8,596
No Act	Elevation	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,597	8,596	8,596	8,596	8,596
Alt 1a	Elevation	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,597	8,596	8,596	8,596	8,596
Alt 1c	Elevation	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,597	8,596	8,596	8,596	8,596
Alt 8a	Elevation	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,597	8,596	8,596	8,596	8,596
Alt 10a	Elevation	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,597	8,596	8,596	8,596	8,596
Alt 13a	Elevation	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,596	8,597	8,596	8,596	8,596	8,596
Elevation change from Full Use Existing System														
No Act	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 1a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 1c	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 8a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 10a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 13a	Change	0	0	0	0	0	0	0	0	0	0	0	0	0

Table H-2.18. Eleven Mile Canyon Reservoir End-of-Month Surface Area (acres)

Surface Area Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		3,223	3,219	3,214	3,205	3,200	3,196	3,192	3,186	3,199	3,233	3,242	3,232	3,212
No Act	Surface Area	3,181	3,175	3,168	3,159	3,154	3,149	3,141	3,134	3,143	3,185	3,197	3,190	3,165
Alt 1a	Surface Area	3,231	3,226	3,221	3,213	3,209	3,208	3,207	3,201	3,207	3,241	3,251	3,240	3,221
Alt 1c	Surface Area	3,230	3,225	3,220	3,211	3,207	3,207	3,206	3,200	3,207	3,240	3,250	3,238	3,220
Alt 8a	Surface Area	3,232	3,227	3,222	3,214	3,209	3,208	3,207	3,201	3,208	3,241	3,252	3,241	3,222
Alt 10a	Surface Area	3,232	3,227	3,222	3,213	3,209	3,208	3,207	3,201	3,208	3,241	3,251	3,240	3,222
Alt 13a	Surface Area	3,232	3,226	3,222	3,213	3,209	3,208	3,208	3,202	3,209	3,242	3,252	3,240	3,222
Surface area change from Full Use Existing System														
No Act	Change	-43	-44	-46	-46	-46	-47	-51	-52	-55	-48	-45	-42	-47
Alt 1a	Change	8	7	8	7	9	12	15	15	9	8	9	7	9
Alt 1c	Change	6	6	6	6	8	11	14	14	8	7	8	6	8
Alt 8a	Change	9	8	9	8	10	12	15	15	10	8	10	8	10
Alt 10a	Change	8	8	8	8	9	12	15	15	10	8	9	8	10
Alt 13a	Change	8	8	8	8	10	13	16	16	10	9	10	8	10
Percent change in surface area from Full Use Existing System														
No Act	% Change	-1%	-1%	-1%	-1%	-1%	-1%	-2%	-2%	-2%	-1%	-1%	-1%	-1%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	1%	1%	0%	0%	0%	0%	0%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Full Use Existing System		3,308	3,309	3,309	3,308	3,306	3,309	3,309	3,304	3,307	3,308	3,295	3,263	3,303
No Act	Surface Area	3,307	3,309	3,309	3,307	3,309	3,309	3,309	3,308	3,302	3,301	3,254	3,217	3,295
Alt 1a	Surface Area	3,307	3,309	3,309	3,309	3,309	3,309	3,309	3,306	3,306	3,308	3,290	3,261	3,303
Alt 1c	Surface Area	3,307	3,309	3,309	3,309	3,309	3,309	3,309	3,306	3,306	3,308	3,289	3,259	3,302
Alt 8a	Surface Area	3,307	3,309	3,309	3,309	3,309	3,309	3,309	3,306	3,306	3,308	3,291	3,262	3,303
Alt 10a	Surface Area	3,307	3,309	3,309	3,309	3,309	3,309	3,309	3,306	3,306	3,308	3,292	3,264	3,303
Alt 13a	Surface Area	3,307	3,309	3,309	3,309	3,309	3,309	3,309	3,306	3,306	3,308	3,291	3,262	3,303
Surface area change from Full Use Existing System														
No Act	Change	0	0	0	0	3	0	0	4	-5	-7	-41	-46	-8
Alt 1a	Change	0	0	0	2	3	0	0	1	-1	0	-5	-2	0
Alt 1c	Change	0	0	0	2	3	0	0	1	-1	0	-6	-4	0
Alt 8a	Change	0	0	0	2	3	0	0	1	-1	0	-3	-1	0
Alt 10a	Change	0	0	0	2	3	0	0	1	-1	0	-3	1	0
Alt 13a	Change	0	0	0	2	3	0	0	1	-1	0	-4	-1	0
Percent change in surface area from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	-1%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Full Use Existing System		3,309	3,309	3,309	3,309	3,309	3,309	3,309	3,309	3,319	3,315	3,314	3,309	3,311
No Act	Surface Area	3,309	3,309	3,309	3,309	3,309	3,309	3,309	3,309	3,318	3,314	3,314	3,309	3,311
Alt 1a	Surface Area	3,309	3,309	3,309	3,309	3,309	3,309	3,309	3,309	3,319	3,314	3,314	3,309	3,311
Alt 1c	Surface Area	3,309	3,309	3,309	3,309	3,309	3,309	3,309	3,309	3,319	3,314	3,314	3,309	3,311
Alt 8a	Surface Area	3,309	3,309	3,309	3,309	3,309	3,309	3,309	3,309	3,319	3,314	3,314	3,309	3,311
Alt 10a	Surface Area	3,309	3,309	3,309	3,309	3,309	3,309	3,309	3,309	3,319	3,314	3,314	3,309	3,311
Alt 13a	Surface Area	3,309	3,309	3,309	3,309	3,309	3,309	3,309	3,309	3,319	3,314	3,314	3,309	3,311
Surface area change from Full Use Existing System														
No Act	Change	0	0	0	0	0	0	0	0	-1	0	0	0	0
Alt 1a	Change	0	0	0	0	0	0	0	0	0	-1	0	0	0
Alt 1c	Change	0	0	0	0	0	0	0	0	0	-1	0	0	0
Alt 8a	Change	0	0	0	0	0	0	0	0	0	-1	0	0	0
Alt 10a	Change	0	0	0	0	0	0	0	0	0	-1	0	0	0
Alt 13a	Change	0	0	0	0	0	0	0	0	0	-1	0	0	0
Percent change in surface area from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Table H-2.19. Cheesman Reservoir End-of-Month Storage Content (AF)

Content Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		68,309	67,320	65,891	62,611	61,174	61,675	63,870	65,806	70,464	70,711	70,499	69,229	66,463
No Act	Content	66,577	65,456	64,040	60,743	59,203	59,779	62,243	64,025	68,733	68,944	68,757	67,479	64,665
Alt 1a	Content	67,007	66,292	65,109	62,272	61,130	61,930	63,871	65,176	69,635	69,506	69,282	67,931	65,762
Alt 1c	Content	66,993	66,280	65,101	62,259	61,117	61,895	63,818	65,149	69,571	69,465	69,286	67,922	65,738
Alt 8a	Content	66,959	66,228	65,067	62,233	61,089	61,942	63,893	65,198	69,604	69,530	69,274	67,879	65,741
Alt 10a	Content	66,965	66,226	65,067	62,238	61,097	61,916	63,875	65,189	69,602	69,522	69,283	67,894	65,739
Alt 13a	Content	67,009	66,269	65,104	62,263	61,117	61,916	63,880	65,213	69,613	69,515	69,320	67,950	65,764
Content change from Full Use Existing System														
No Act	Change	-1,732	-1,864	-1,852	-1,868	-1,971	-1,896	-1,626	-1,781	-1,730	-1,767	-1,742	-1,750	-1,798
Alt 1a	Change	-1,302	-1,028	-782	-340	-44	255	1	-630	-829	-1,205	-1,217	-1,297	-701
Alt 1c	Change	-1,316	-1,040	-790	-352	-57	220	-52	-657	-892	-1,246	-1,213	-1,307	-725
Alt 8a	Change	-1,350	-1,092	-824	-379	-84	267	23	-608	-859	-1,181	-1,225	-1,350	-722
Alt 10a	Change	-1,344	-1,094	-825	-374	-76	241	5	-617	-861	-1,188	-1,216	-1,335	-724
Alt 13a	Change	-1,299	-1,051	-788	-348	-56	241	10	-593	-851	-1,196	-1,179	-1,278	-699
Percent change in volume from Full Use Existing System														
No Act	% Change	-3%	-3%	-3%	-3%	-3%	-3%	-3%	-3%	-2%	-2%	-2%	-3%	-3%
Alt 1a	% Change	-2%	-2%	-1%	-1%	0%	0%	0%	-1%	-1%	-2%	-2%	-2%	-1%
Alt 1c	% Change	-2%	-2%	-1%	-1%	0%	0%	0%	-1%	-1%	-2%	-2%	-2%	-1%
Alt 8a	% Change	-2%	-2%	-1%	-1%	0%	0%	0%	-1%	-1%	-2%	-2%	-2%	-1%
Alt 10a	% Change	-2%	-2%	-1%	-1%	0%	0%	0%	-1%	-1%	-2%	-2%	-2%	-1%
Alt 13a	% Change	-2%	-2%	-1%	-1%	0%	0%	0%	-1%	-1%	-2%	-2%	-2%	-1%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Full Use Existing System		77,071	75,977	74,349	70,339	68,905	68,150	67,175	65,386	63,833	59,327	54,854	49,599	66,247
No Act	Content	76,750	75,574	73,868	69,762	68,056	67,354	65,842	62,389	59,903	54,211	48,369	41,102	63,598
Alt 1a	Content	76,771	75,923	74,644	70,942	69,705	69,212	68,212	66,438	64,839	59,224	53,257	46,864	66,336
Alt 1c	Content	76,773	75,923	74,643	70,938	69,690	69,204	68,189	66,405	64,736	59,048	53,093	46,723	66,280
Alt 8a	Content	76,788	75,937	74,658	70,976	69,727	69,247	68,182	66,445	64,809	59,185	53,208	46,734	66,325
Alt 10a	Content	76,799	75,946	74,670	70,970	69,723	69,237	68,215	66,457	64,825	59,143	53,068	46,620	66,306
Alt 13a	Content	76,744	75,906	74,627	70,923	69,689	69,211	68,205	66,422	64,742	59,087	53,132	46,850	66,295
Content Change from Full Use Existing System														
No Act	Change	-320	-403	-481	-577	-849	-796	-1,334	-2,997	-3,930	-5,117	-6,484	-8,497	-2,649
Alt 1a	Change	-300	-54	294	603	801	1,062	1,037	1,052	1,006	-103	-1,597	-2,735	89
Alt 1c	Change	-298	-53	293	599	786	1,054	1,013	1,019	903	-279	-1,761	-2,877	33
Alt 8a	Change	-283	-40	308	637	822	1,097	1,007	1,059	976	-142	-1,645	-2,865	78
Alt 10a	Change	-271	-31	320	630	819	1,087	1,040	1,071	992	-185	-1,785	-2,979	59
Alt 13a	Change	-326	-71	278	584	784	1,062	1,029	1,036	908	-240	-1,722	-2,749	48
Percent change in volume from Full Use Existing System														
No Act	% Change	0%	-1%	-1%	-1%	-1%	-1%	-2%	-5%	-6%	-9%	-12%	-17%	-4%
Alt 1a	% Change	0%	0%	0%	1%	1%	2%	2%	2%	2%	0%	-3%	-6%	0%
Alt 1c	% Change	0%	0%	0%	1%	1%	2%	2%	2%	1%	0%	-3%	-6%	0%
Alt 8a	% Change	0%	0%	0%	1%	1%	2%	1%	2%	2%	0%	-3%	-6%	0%
Alt 10a	% Change	0%	0%	0%	1%	1%	2%	2%	2%	2%	0%	-3%	-6%	0%
Alt 13a	% Change	0%	0%	0%	1%	1%	2%	2%	2%	1%	0%	-3%	-6%	0%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Full Use Existing System		78,047	77,328	76,601	74,216	73,385	75,155	76,229	78,569	78,993	78,918	78,438	78,316	77,016
No Act	Content	78,045	77,437	76,945	74,438	73,530	75,126	76,112	78,557	79,022	78,883	78,381	78,170	77,054
Alt 1a	Content	78,048	77,403	76,742	74,370	73,657	75,811	76,541	78,560	78,990	78,781	78,355	78,171	77,119
Alt 1c	Content	78,031	77,403	76,742	74,366	73,652	75,805	76,495	78,560	78,991	78,772	78,346	78,162	77,110
Alt 8a	Content	78,048	77,403	76,746	74,372	73,649	75,816	76,536	78,560	78,990	78,775	78,360	78,171	77,119
Alt 10a	Content	78,048	77,404	76,743	74,358	73,648	75,800	76,557	78,560	78,992	78,773	78,353	78,171	77,117
Alt 13a	Content	78,048	77,406	76,746	74,302	73,576	75,688	76,557	78,557	78,990	78,795	78,366	78,175	77,101
Content Change from Full Use Existing System														
No Act	Change	-2	109	344	222	145	-29	-117	-12	29	-35	-56	-145	38
Alt 1a	Change	1	75	141	154	272	655	312	-10	-3	-137	-83	-144	103
Alt 1c	Change	-16	75	141	150	267	650	265	-10	-2	-146	-92	-154	94
Alt 8a	Change	2	75	144	156	264	661	307	-10	-3	-143	-77	-145	103
Alt 10a	Change	1	76	142	142	263	645	328	-9	-1	-146	-85	-144	101
Alt 13a	Change	1	78	145	86	191	533	328	-12	-3	-123	-71	-140	84
Percent change in volume from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%

Table H-2.20. Cheesman Reservoir End-of-Month Elevations (feet)

Elevation Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		6,824	6,823	6,821	6,817	6,814	6,815	6,818	6,822	6,829	6,829	6,829	6,827	6,822
No Act	Elevation	6,821	6,819	6,817	6,812	6,810	6,810	6,815	6,818	6,826	6,826	6,826	6,823	6,819
Alt 1a	Elevation	6,821	6,820	6,818	6,815	6,813	6,814	6,818	6,820	6,827	6,826	6,826	6,823	6,820
Alt 1c	Elevation	6,821	6,820	6,818	6,815	6,813	6,814	6,818	6,820	6,827	6,826	6,826	6,823	6,820
Alt 8a	Elevation	6,821	6,820	6,818	6,815	6,813	6,814	6,818	6,820	6,827	6,826	6,826	6,823	6,820
Alt 10a	Elevation	6,821	6,820	6,818	6,815	6,813	6,814	6,818	6,820	6,827	6,826	6,826	6,823	6,820
Alt 13a	Elevation	6,821	6,820	6,818	6,815	6,813	6,814	6,818	6,820	6,827	6,826	6,826	6,823	6,820
Elevation change from Full Use Existing System														
No Act	Change	-3	-4	-4	-4	-4	-4	-4	-4	-3	-3	-3	-4	-4
Alt 1a	Change	-3	-3	-3	-2	-1	0	0	-1	-2	-3	-3	-3	-2
Alt 1c	Change	-3	-3	-3	-2	-1	-1	0	-1	-2	-3	-3	-3	-2
Alt 8a	Change	-3	-3	-3	-2	-1	0	0	-1	-2	-3	-3	-3	-2
Alt 10a	Change	-3	-3	-3	-2	-1	0	0	-1	-2	-3	-3	-3	-2
Alt 13a	Change	-3	-3	-3	-2	-1	0	0	-1	-2	-3	-3	-3	-2
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Full Use Existing System		6,839	6,838	6,836	6,831	6,829	6,828	6,827	6,825	6,822	6,815	6,808	6,798	6,825
No Act	Elevation	6,839	6,838	6,835	6,830	6,828	6,827	6,825	6,820	6,816	6,807	6,797	6,781	6,820
Alt 1a	Elevation	6,839	6,838	6,836	6,832	6,830	6,830	6,828	6,826	6,824	6,815	6,806	6,794	6,825
Alt 1c	Elevation	6,839	6,838	6,836	6,832	6,830	6,830	6,828	6,826	6,823	6,815	6,806	6,794	6,825
Alt 8a	Elevation	6,839	6,838	6,836	6,832	6,830	6,830	6,828	6,826	6,823	6,815	6,806	6,794	6,825
Alt 10a	Elevation	6,839	6,838	6,836	6,832	6,830	6,830	6,828	6,826	6,824	6,815	6,806	6,794	6,825
Alt 13a	Elevation	6,839	6,838	6,836	6,832	6,830	6,830	6,828	6,826	6,823	6,815	6,806	6,794	6,825
Elevation change from Full Use Existing System														
No Act	Change	0	-1	0	-1	-1	-1	-2	-5	-6	-8	-11	-17	-4
Alt 1a	Change	0	0	0	1	1	1	2	1	2	0	-2	-3	0
Alt 1c	Change	0	0	0	1	1	1	1	1	1	0	-2	-4	0
Alt 8a	Change	0	0	0	1	1	1	1	1	2	0	-2	-4	0
Alt 10a	Change	0	0	0	1	1	1	2	1	2	0	-2	-4	0
Alt 13a	Change	0	0	0	1	1	1	2	1	1	0	-2	-4	0
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Full Use Existing System		6,841	6,840	6,839	6,836	6,835	6,837	6,838	6,841	6,842	6,842	6,841	6,841	6,839
No Act	Elevation	6,841	6,840	6,839	6,836	6,835	6,837	6,838	6,841	6,842	6,842	6,841	6,841	6,839
Alt 1a	Elevation	6,841	6,840	6,839	6,836	6,835	6,838	6,839	6,841	6,842	6,842	6,841	6,841	6,839
Alt 1c	Elevation	6,841	6,840	6,839	6,836	6,835	6,838	6,839	6,841	6,842	6,842	6,841	6,841	6,839
Alt 8a	Elevation	6,841	6,840	6,839	6,836	6,835	6,838	6,839	6,841	6,842	6,842	6,841	6,841	6,839
Alt 10a	Elevation	6,841	6,840	6,839	6,836	6,835	6,838	6,839	6,841	6,842	6,842	6,841	6,841	6,839
Alt 13a	Elevation	6,841	6,840	6,839	6,836	6,835	6,838	6,839	6,841	6,842	6,842	6,841	6,841	6,839
Elevation change from Full Use Existing System														
No Act	Change	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt 1a	Change	0	0	0	0	0	1	0	0	0	0	0	0	0
Alt 1c	Change	0	0	0	0	0	1	0	0	0	0	0	0	0
Alt 8a	Change	0	0	0	0	0	1	0	0	0	0	0	0	0
Alt 10a	Change	0	0	0	0	0	1	0	0	0	0	0	0	0
Alt 13a	Change	0	0	0	0	0	1	0	0	0	0	0	0	0

Table H-2.21. Cheesman Reservoir End-of-Month Surface Area (acres)

Surface Area Change and % Change are based on comparisons to Full Use Existing System

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		786	778	767	743	731	734	752	769	806	808	806	795	773
No Act	Surface Area	770	760	749	724	712	715	736	752	791	793	791	778	756
Alt 1a	Surface Area	772	766	757	737	728	734	751	763	798	796	793	781	765
Alt 1c	Surface Area	772	766	757	736	728	733	750	762	798	795	793	781	764
Alt 8a	Surface Area	771	765	757	736	728	734	751	763	798	796	793	781	764
Alt 10a	Surface Area	771	765	757	736	728	734	751	763	798	796	793	781	764
Alt 13a	Surface Area	772	766	757	737	728	734	751	763	798	796	794	781	765
Surface area change from Full Use Existing System														
No Act	Change	-16	-18	-18	-18	-19	-19	-16	-17	-15	-15	-15	-16	-17
Alt 1a	Change	-14	-12	-10	-6	-3	0	-1	-6	-8	-12	-12	-14	-8
Alt 1c	Change	-14	-12	-10	-6	-3	0	-2	-6	-8	-13	-12	-14	-8
Alt 8a	Change	-14	-13	-10	-6	-4	0	-1	-6	-8	-12	-13	-14	-8
Alt 10a	Change	-14	-13	-10	-6	-3	0	-1	-6	-8	-12	-12	-14	-8
Alt 13a	Change	-14	-12	-10	-6	-3	0	-1	-6	-8	-12	-12	-14	-8
Percent change in surface area from Full Use Existing System														
No Act	% Change	-2%	-2%	-2%	-2%	-3%	-3%	-2%	-2%	-2%	-2%	-2%	-2%	-2%
Alt 1a	% Change	-2%	-2%	-1%	-1%	0%	0%	0%	-1%	-1%	-2%	-2%	-2%	-1%
Alt 1c	% Change	-2%	-2%	-1%	-1%	0%	0%	0%	-1%	-1%	-2%	-2%	-2%	-1%
Alt 8a	% Change	-2%	-2%	-1%	-1%	0%	0%	0%	-1%	-1%	-2%	-2%	-2%	-1%
Alt 10a	% Change	-2%	-2%	-1%	-1%	0%	0%	0%	-1%	-1%	-2%	-2%	-2%	-1%
Alt 13a	% Change	-2%	-2%	-1%	-1%	0%	0%	0%	-1%	-1%	-2%	-2%	-2%	-1%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Full Use Existing System		860	852	841	812	802	797	790	776	763	727	690	642	779
No Act	Surface Area	858	849	837	808	796	791	780	753	733	685	636	563	757
Alt 1a	Surface Area	858	852	843	817	808	804	797	784	771	727	680	622	780
Alt 1c	Surface Area	858	852	843	817	808	804	797	784	770	726	678	621	780
Alt 8a	Surface Area	858	852	843	817	808	805	797	784	771	727	679	621	780
Alt 10a	Surface Area	858	852	843	817	808	805	797	784	771	726	678	620	780
Alt 13a	Surface Area	858	852	843	816	808	804	797	784	770	726	679	622	780
Surface area change from Full Use Existing System														
No Act	Change	-2	-3	-3	-4	-6	-6	-10	-23	-30	-42	-54	-78	-22
Alt 1a	Change	-2	0	2	4	6	8	7	8	8	0	-11	-20	1
Alt 1c	Change	-2	0	2	4	6	7	7	7	7	-1	-12	-21	0
Alt 8a	Change	-2	0	2	5	6	8	7	8	8	0	-11	-21	1
Alt 10a	Change	-2	0	2	4	6	8	8	8	8	-1	-12	-22	1
Alt 13a	Change	-2	-1	2	4	6	8	7	8	7	-1	-12	-20	1
Percent change in surface area from Full Use Existing System														
No Act	% Change	0%	0%	0%	-1%	-1%	-1%	-1%	-3%	-4%	-6%	-8%	-12%	-3%
Alt 1a	% Change	0%	0%	0%	1%	1%	1%	1%	1%	1%	0%	-2%	-3%	0%
Alt 1c	% Change	0%	0%	0%	1%	1%	1%	1%	1%	1%	0%	-2%	-3%	0%
Alt 8a	% Change	0%	0%	0%	1%	1%	1%	1%	1%	1%	0%	-2%	-3%	0%
Alt 10a	% Change	0%	0%	0%	1%	1%	1%	1%	1%	1%	0%	-2%	-3%	0%
Alt 13a	% Change	0%	0%	0%	1%	1%	1%	1%	1%	1%	0%	-2%	-3%	0%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Full Use Existing System		867	862	857	840	834	846	854	871	873	873	870	869	860
No Act	Surface Area	867	862	859	841	835	846	853	870	874	873	869	868	860
Alt 1a	Surface Area	867	862	858	841	836	851	856	870	873	872	869	868	860
Alt 1c	Surface Area	867	862	858	841	836	851	856	870	873	872	869	868	860
Alt 8a	Surface Area	867	862	858	841	836	851	856	870	873	872	869	868	860
Alt 10a	Surface Area	867	862	858	841	836	851	856	870	873	872	869	868	860
Alt 13a	Surface Area	867	862	858	840	835	850	856	870	873	872	869	868	860
Surface area change from Full Use Existing System														
No Act	Change	0	1	2	2	1	0	-1	0	0	0	0	-1	0
Alt 1a	Change	0	1	1	1	2	5	2	0	0	-1	-1	-1	1
Alt 1c	Change	0	1	1	1	2	5	2	0	0	-1	-1	-1	1
Alt 8a	Change	0	1	1	1	2	5	2	0	0	-1	-1	-1	1
Alt 10a	Change	0	1	1	1	2	5	2	0	0	-1	-1	-1	1
Alt 13a	Change	0	1	1	1	1	4	2	0	0	-1	-1	-1	1
Percent change in surface area from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Table H-2.22. Leyden Gulch Reservoir End-of-Month Storage Content (AF)

Content Change and % Change are based on comparisons to Full Use Existing System

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		---	---	---	---	---	---	---	---	---	---	---	---	---
No Act	Content	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	Content	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	Content	29,352	29,350	29,232	28,979	28,754	28,461	27,844	28,375	29,152	29,222	29,338	29,415	28,956
Alt 8a	Content	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 10a	Content	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 13a	Content	---	---	---	---	---	---	---	---	---	---	---	---	---
Content change from Full Use Existing System														
No Act	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 8a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 10a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 13a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Percent change in volume from Full Use Existing System														
No Act	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 8a	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 10a	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 13a	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Full Use Existing System		---	---	---	---	---	---	---	---	---	---	---	---	---
No Act	Content	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	Content	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	Content	30,709	30,724	30,713	30,639	30,599	30,541	30,475	30,516	30,687	30,073	29,761	29,644	30,423
Alt 8a	Content	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 10a	Content	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 13a	Content	---	---	---	---	---	---	---	---	---	---	---	---	---
Content Change from Full Use Existing System														
No Act	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 8a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 10a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 13a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Percent change in volume from Full Use Existing System														
No Act	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 8a	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 10a	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 13a	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Full Use Existing System		---	---	---	---	---	---	---	---	---	---	---	---	---
No Act	Content	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	Content	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	Content	30,763	30,797	30,785	30,783	30,789	30,811	30,893	31,090	30,860	30,648	30,601	30,730	30,796
Alt 8a	Content	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 10a	Content	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 13a	Content	---	---	---	---	---	---	---	---	---	---	---	---	---
Content Change from Full Use Existing System														
No Act	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 8a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 10a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 13a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Percent change in volume from Full Use Existing System														
No Act	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 8a	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 10a	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 13a	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---

Table H-2.23. Leyden Gulch Reservoir End-of-Month Elevations (feet)

Elevation Change and % Change are based on comparisons to Full Use Existing System

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		---	---	---	---	---	---	---	---	---	---	---	---	---
No Act	Elevation	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	Elevation	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	Elevation	6,121	6,121	6,120	6,119	6,118	6,116	6,113	6,116	6,120	6,120	6,121	6,121	6,119
Alt 8a	Elevation	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 10a	Elevation	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 13a	Elevation	---	---	---	---	---	---	---	---	---	---	---	---	---
Elevation change from Full Use Existing System														
No Act	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 8a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 10a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 13a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Full Use Existing System		---	---	---	---	---	---	---	---	---	---	---	---	---
No Act	Elevation	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	Elevation	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	Elevation	6,126	6,126	6,126	6,125	6,125	6,125	6,125	6,125	6,126	6,124	6,123	6,123	6,125
Alt 8a	Elevation	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 10a	Elevation	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 13a	Elevation	---	---	---	---	---	---	---	---	---	---	---	---	---
Elevation change from Full Use Existing System														
No Act	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 8a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 10a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 13a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Full Use Existing System		---	---	---	---	---	---	---	---	---	---	---	---	---
No Act	Elevation	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	Elevation	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	Elevation	6,126	6,126	6,126	6,126	6,126	6,126	6,126	6,127	6,126	6,125	6,125	6,126	6,126
Alt 8a	Elevation	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 10a	Elevation	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 13a	Elevation	---	---	---	---	---	---	---	---	---	---	---	---	---
Elevation change from Full Use Existing System														
No Act	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 8a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 10a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 13a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---

Table H-2.24. Leyden Gulch Reservoir End-of-Month Surface Area (acres)

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		---	---	---	---	---	---	---	---	---	---	---	---	---
No Act	Surface Area	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	Surface Area	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	Surface Area	318	318	317	315	312	309	304	310	317	317	318	318	314
Alt 8a	Surface Area	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 10a	Surface Area	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 13a	Surface Area	---	---	---	---	---	---	---	---	---	---	---	---	---
Surface area change from Full Use Existing System														
No Act	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 8a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 10a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 13a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Percent change in surface area from Full Use Existing System														
No Act	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 8a	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 10a	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 13a	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Full Use Existing System		---	---	---	---	---	---	---	---	---	---	---	---	---
No Act	Surface Area	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	Surface Area	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	Surface Area	328	328	328	328	328	327	327	327	328	325	323	322	327
Alt 8a	Surface Area	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 10a	Surface Area	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 13a	Surface Area	---	---	---	---	---	---	---	---	---	---	---	---	---
Surface area change from Full Use Existing System														
No Act	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 8a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 10a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 13a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Percent change in surface area from Full Use Existing System														
No Act	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 8a	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 10a	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 13a	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Full Use Existing System		---	---	---	---	---	---	---	---	---	---	---	---	---
No Act	Surface Area	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	Surface Area	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	Surface Area	329	329	329	329	329	329	329	330	329	328	328	328	329
Alt 8a	Surface Area	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 10a	Surface Area	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 13a	Surface Area	---	---	---	---	---	---	---	---	---	---	---	---	---
Surface area change from Full Use Existing System														
No Act	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 8a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 10a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 13a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Percent change in surface area from Full Use Existing System														
No Act	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 8a	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 10a	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 13a	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---

Table H-2.25. Gravel Pit and Deep Aquifer End-of-Month Storage Content (AF)

Content Change and % Change are based on comparisons to Full Use Existing System

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		---	---	---	---	---	---	---	---	---	---	---	---	---
No Act	Content	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	Content	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	Content	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 8a	Content	2,993	3,135	3,388	3,620	3,745	3,949	3,980	3,839	3,644	3,422	3,159	2,952	3,486
Alt 10a	Content	3,773	3,832	3,906	4,003	4,092	4,173	4,168	4,089	4,026	3,968	3,877	3,774	3,973
Alt 13a	Content	2,500	2,400	2,340	2,326	2,308	2,281	2,299	2,348	2,436	2,586	2,653	2,636	2,426
Content change from Full Use Existing System														
No Act	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 8a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 10a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 13a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Percent change in volume from Full Use Existing System														
No Act	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 8a	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 10a	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 13a	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Full Use Existing System		---	---	---	---	---	---	---	---	---	---	---	---	---
No Act	Content	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	Content	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	Content	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 8a	Content	3,626	3,814	4,208	4,473	4,583	4,612	4,609	4,562	4,362	4,046	3,435	2,794	4,094
Alt 10a	Content	4,549	4,601	4,706	4,812	4,999	5,001	5,001	5,001	4,947	4,779	4,365	3,789	4,712
Alt 13a	Content	2,983	2,949	2,933	2,919	2,901	2,888	2,964	2,997	2,962	2,789	2,600	2,242	2,844
Content Change from Full Use Existing System														
No Act	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 8a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 10a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 13a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Percent change in volume from Full Use Existing System														
No Act	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 8a	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 10a	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 13a	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Full Use Existing System		---	---	---	---	---	---	---	---	---	---	---	---	---
No Act	Content	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	Content	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	Content	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 8a	Content	2,363	2,542	2,741	3,052	3,298	3,614	3,699	3,755	3,716	3,587	3,430	3,320	3,260
Alt 10a	Content	3,632	3,723	3,820	3,964	4,192	4,292	4,328	4,385	4,424	4,451	4,480	4,508	4,183
Alt 13a	Content	2,893	2,874	2,863	2,852	2,835	2,833	2,819	2,908	2,948	2,996	2,995	2,996	2,901
Content Change from Full Use Existing System														
No Act	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 8a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 10a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 13a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Percent change in volume from Full Use Existing System														
No Act	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 8a	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 10a	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 13a	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table H-2.26. Gravel Pit End-of-Month Elevations (feet)

Elevation Change and % Change are based on comparisons to Full Use Existing System

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		---	---	---	---	---	---	---	---	---	---	---	---	---
No Act	Elevation	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	Elevation	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	Elevation	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 8a	Elevation	4,704	4,706	4,710	4,714	4,715	4,718	4,718	4,716	4,713	4,710	4,707	4,704	4,711
Alt 10a	Elevation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 13a	Elevation	4,695	4,695	4,694	4,694	4,694	4,694	4,694	4,694	4,695	4,696	4,697	4,697	4,695
Elevation change from Full Use Existing System														
No Act	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 8a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 10a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 13a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Full Use Existing System		---	---	---	---	---	---	---	---	---	---	---	---	---
No Act	Elevation	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	Elevation	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	Elevation	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 8a	Elevation	4,710	4,714	4,720	4,725	4,726	4,727	4,727	4,726	4,723	4,718	4,710	4,701	4,719
Alt 10a	Elevation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 13a	Elevation	4,700	4,700	4,699	4,699	4,699	4,699	4,700	4,700	4,700	4,698	4,696	4,693	4,699
Elevation change from Full Use Existing System														
No Act	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 8a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 10a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 13a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Full Use Existing System		---	---	---	---	---	---	---	---	---	---	---	---	---
No Act	Elevation	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	Elevation	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	Elevation	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 8a	Elevation	4,697	4,699	4,702	4,706	4,710	4,713	4,714	4,715	4,714	4,712	4,709	4,707	4,708
Alt 10a	Elevation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 13a	Elevation	4,699	4,699	4,699	4,699	4,699	4,698	4,698	4,699	4,700	4,700	4,700	4,700	4,699
Elevation change from Full Use Existing System														
No Act	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 8a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 10a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 13a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table H-2.27. Gravel Pit End-of-Month Surface Area (acres)

Surface Area Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		---	---	---	---	---	---	---	---	---	---	---	---	---
No Act	Surface Area	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	Surface Area	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	Surface Area	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 8a	Surface Area	363	380	411	439	454	479	483	466	442	415	383	358	423
Alt 10a	Surface Area	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 13a	Surface Area	303	291	284	282	280	277	279	285	296	314	322	320	294
Surface area change from Full Use Existing System														
No Act	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 8a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 10a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 13a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Percent change in surface area from Full Use Existing System														
No Act	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 8a	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 10a	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 13a	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Full Use Existing System		---	---	---	---	---	---	---	---	---	---	---	---	---
No Act	Surface Area	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	Surface Area	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	Surface Area	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 8a	Surface Area	440	463	511	543	556	560	559	553	529	491	417	339	497
Alt 10a	Surface Area	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 13a	Surface Area	362	358	356	354	352	350	360	364	359	338	315	272	345
Surface area change from Full Use Existing System														
No Act	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 8a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 10a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 13a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Percent change in surface area from Full Use Existing System														
No Act	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 8a	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 10a	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 13a	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Full Use Existing System		---	---	---	---	---	---	---	---	---	---	---	---	---
No Act	Surface Area	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	Surface Area	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	Surface Area	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 8a	Surface Area	287	308	333	370	400	438	449	456	451	435	416	403	396
Alt 10a	Surface Area	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 13a	Surface Area	351	349	347	346	344	344	342	353	358	363	363	364	352
Surface area change from Full Use Existing System														
No Act	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 8a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 10a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 13a	Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Percent change in surface area from Full Use Existing System														
No Act	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1a	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 1c	% Change	---	---	---	---	---	---	---	---	---	---	---	---	---
Alt 8a	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 10a	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alt 13a	% Change	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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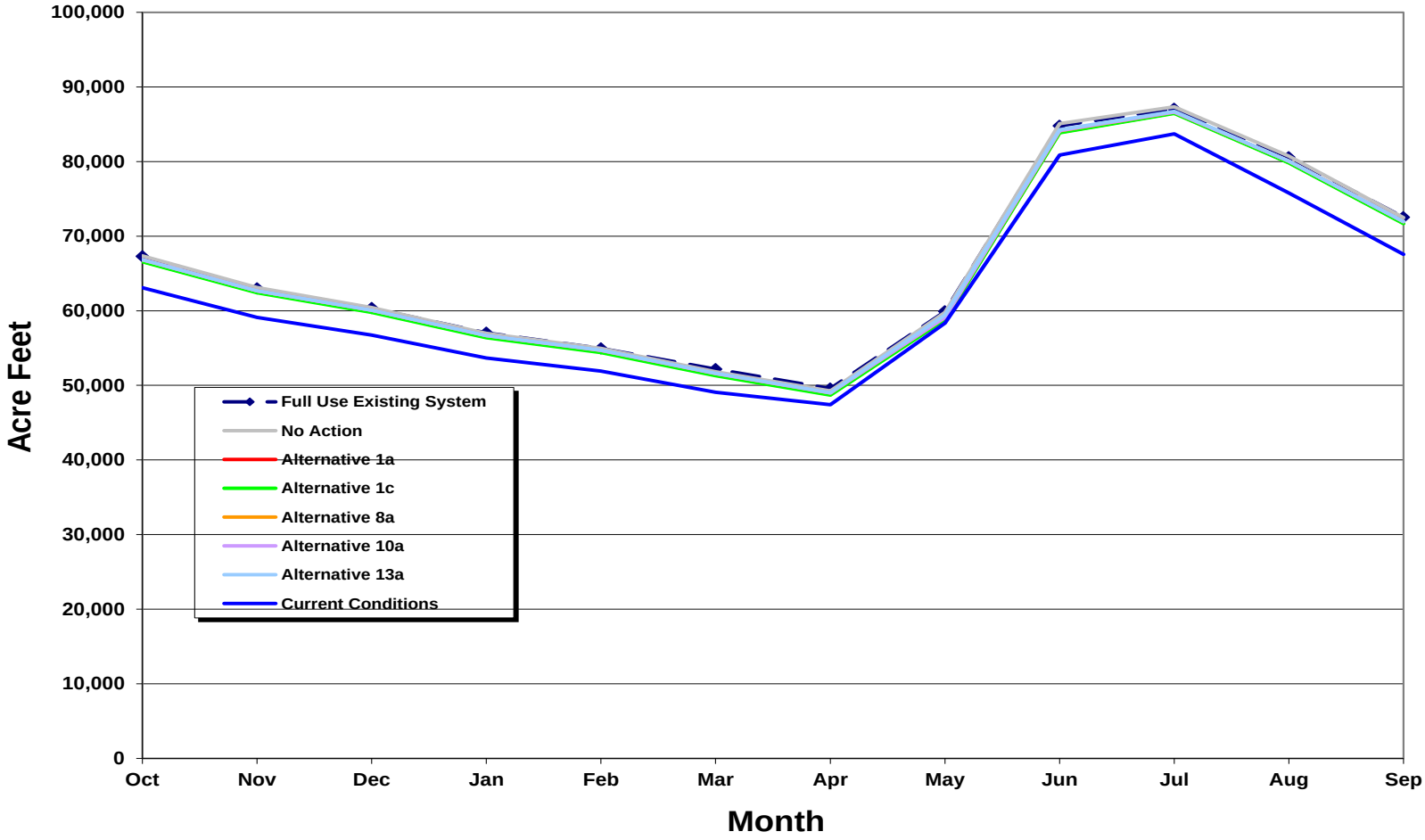
Figure H-2.1 Williams Fork Reservoir End-of-Month Content at Node #3950 – Average Year



Note: Where colored graph lines are not visible, the lines most likely represent similar data and are positioned behind other lines higher in sequence.

Figure H-2.2 Williams Fork Reservoir End-of-Month Content at Node #3950 – Dry Year Average

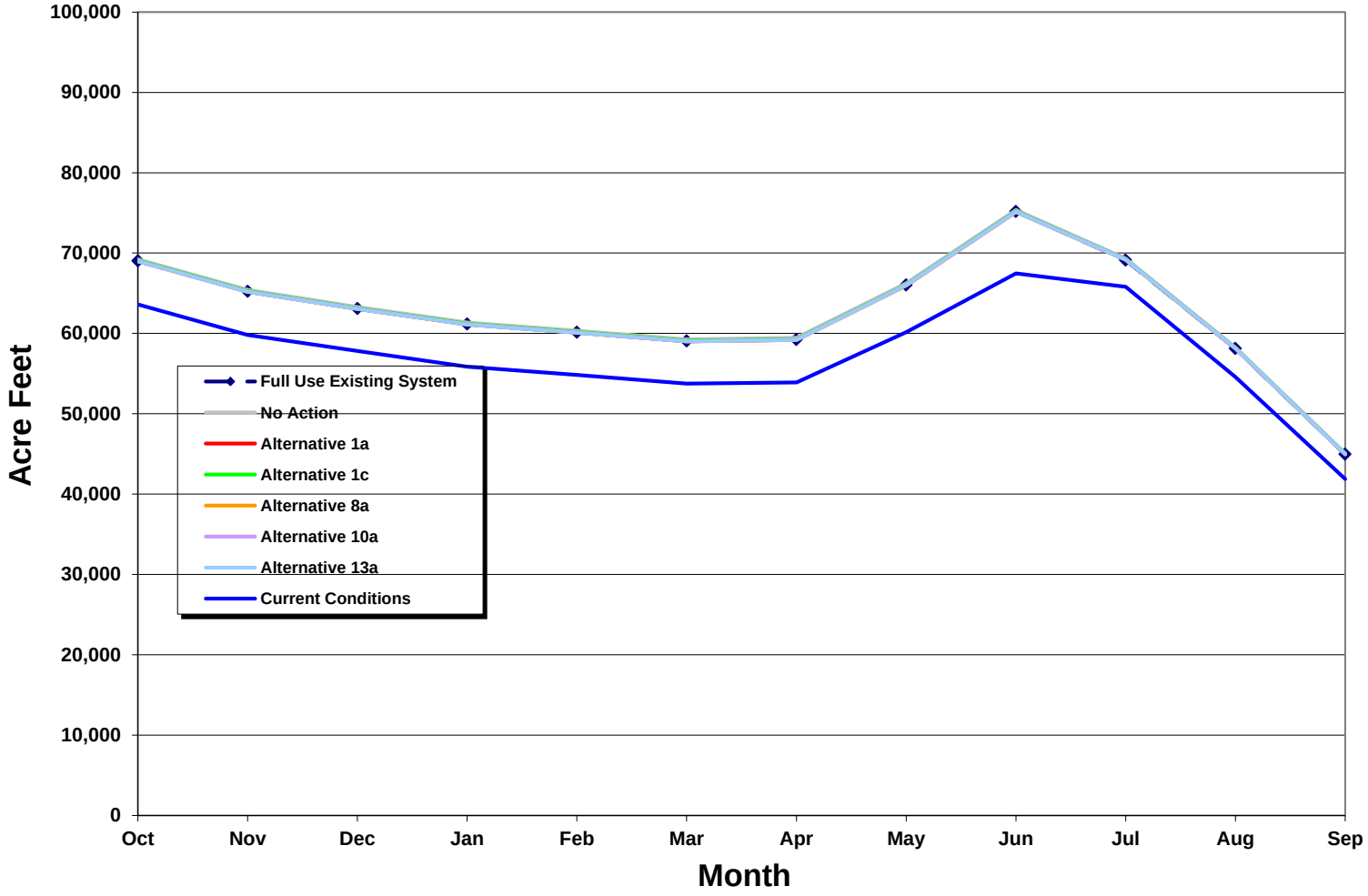


Figure H-2.3 Williams Fork Reservoir End-of-Month Content at Node #3950 – Wet Year Average

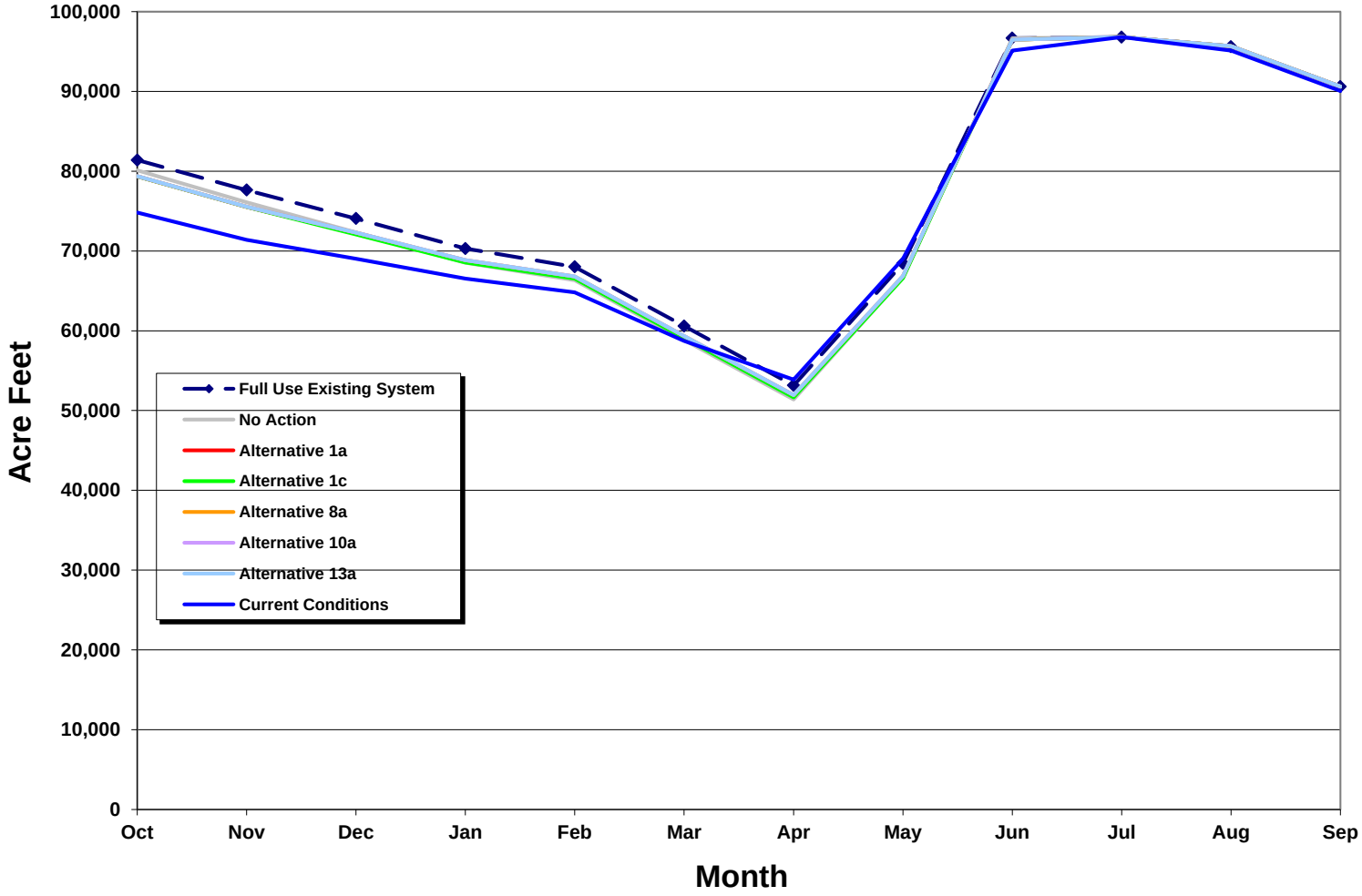


Figure H-2.4 Williams Fork Reservoir Elevation\Depth End-of-Month Content at Node #3950 – Average Year

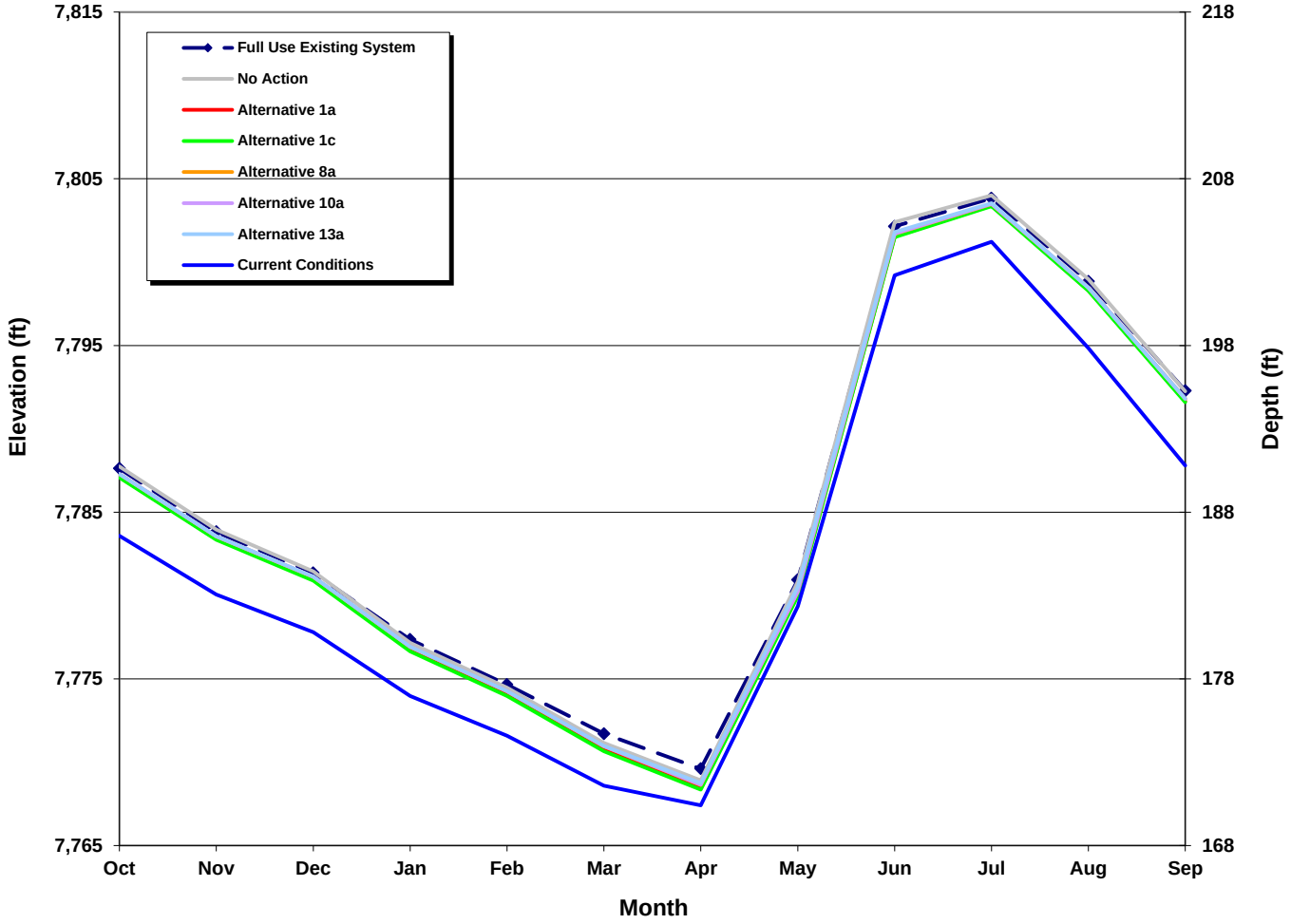


Figure H-2.5 Williams Fork Reservoir Elevation\Depth End-of-Month Content at Node #3950 – Dry Year Average

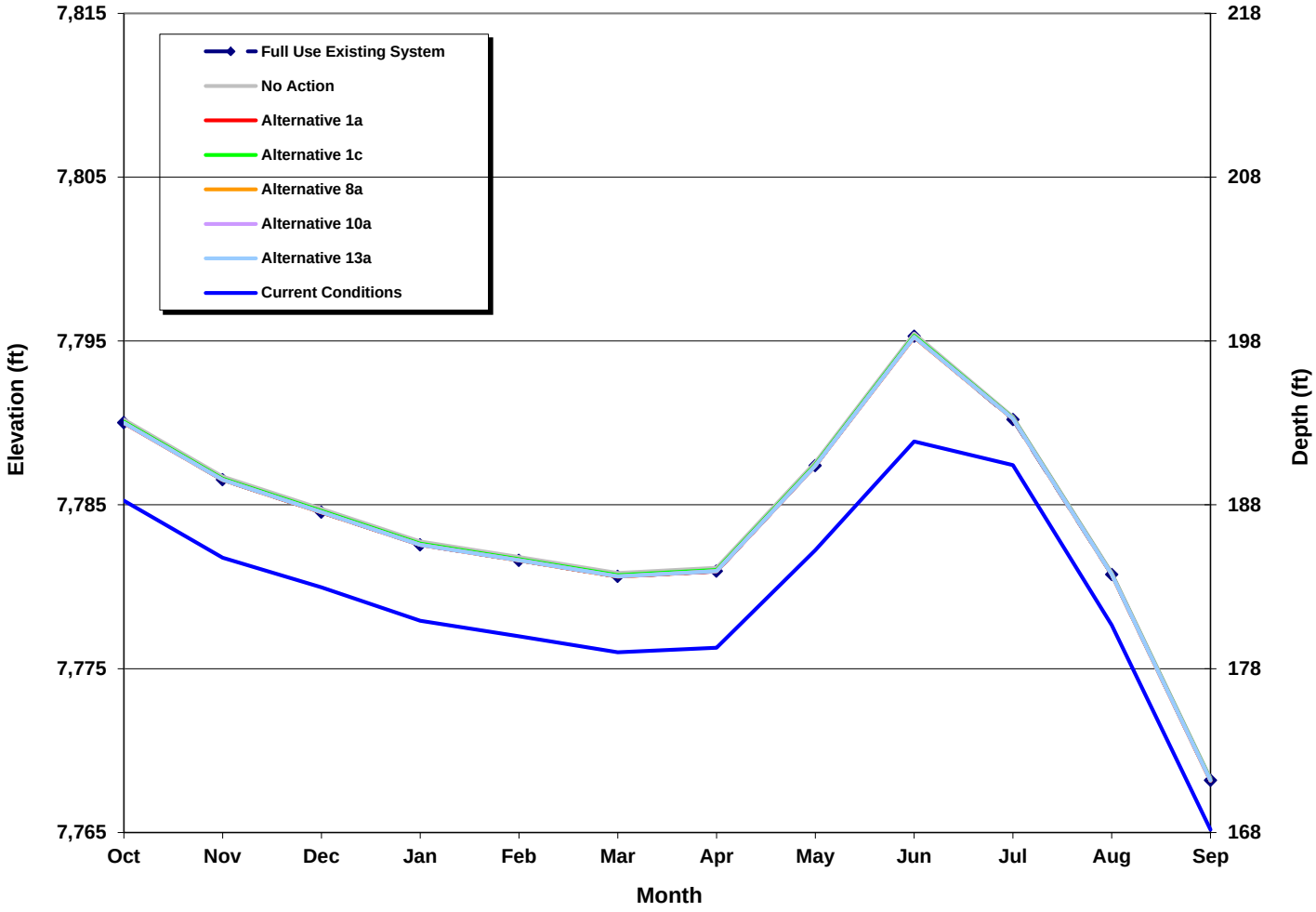


Figure H-2.6 Williams Fork Reservoir Elevation\Depth End-of-Month Content at Node #3950 – Wet Year Average

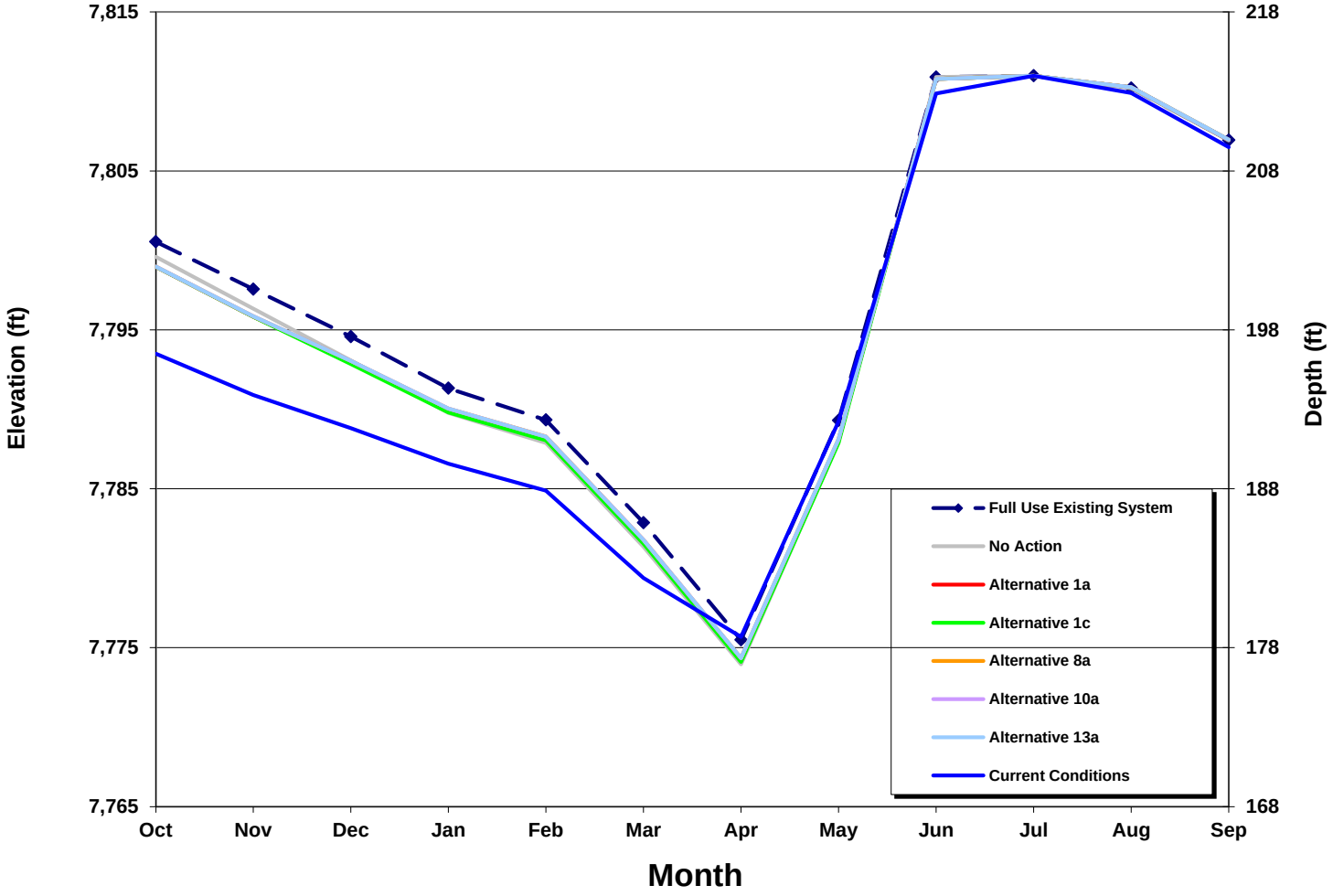


Figure H-2.7 Dillon Reservoir End-of-Month Content at Node #4250 – Average Year

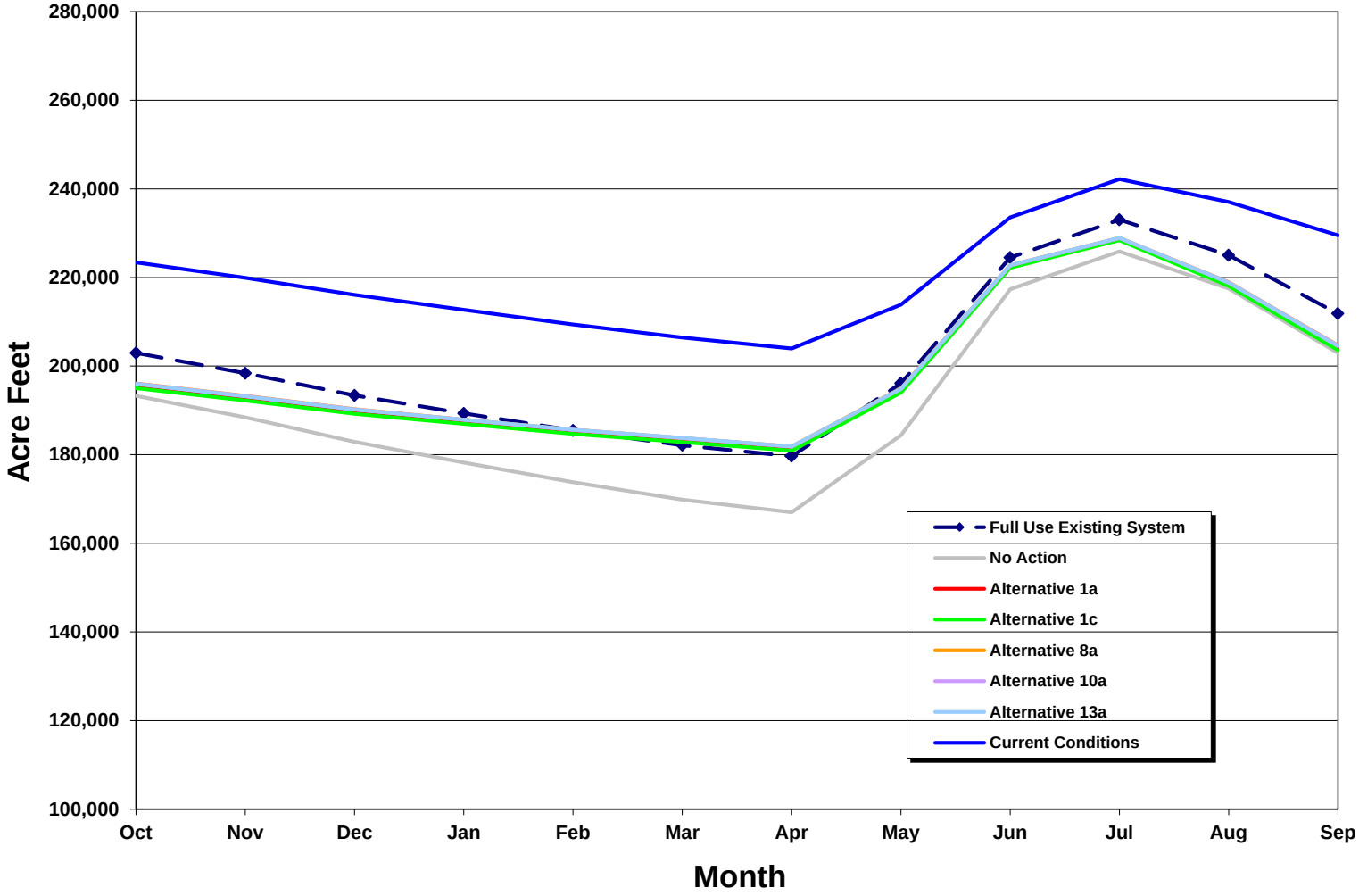


Figure H-2.8 Dillon Reservoir End-of-Month Content at Node #4250 – Dry Year Average

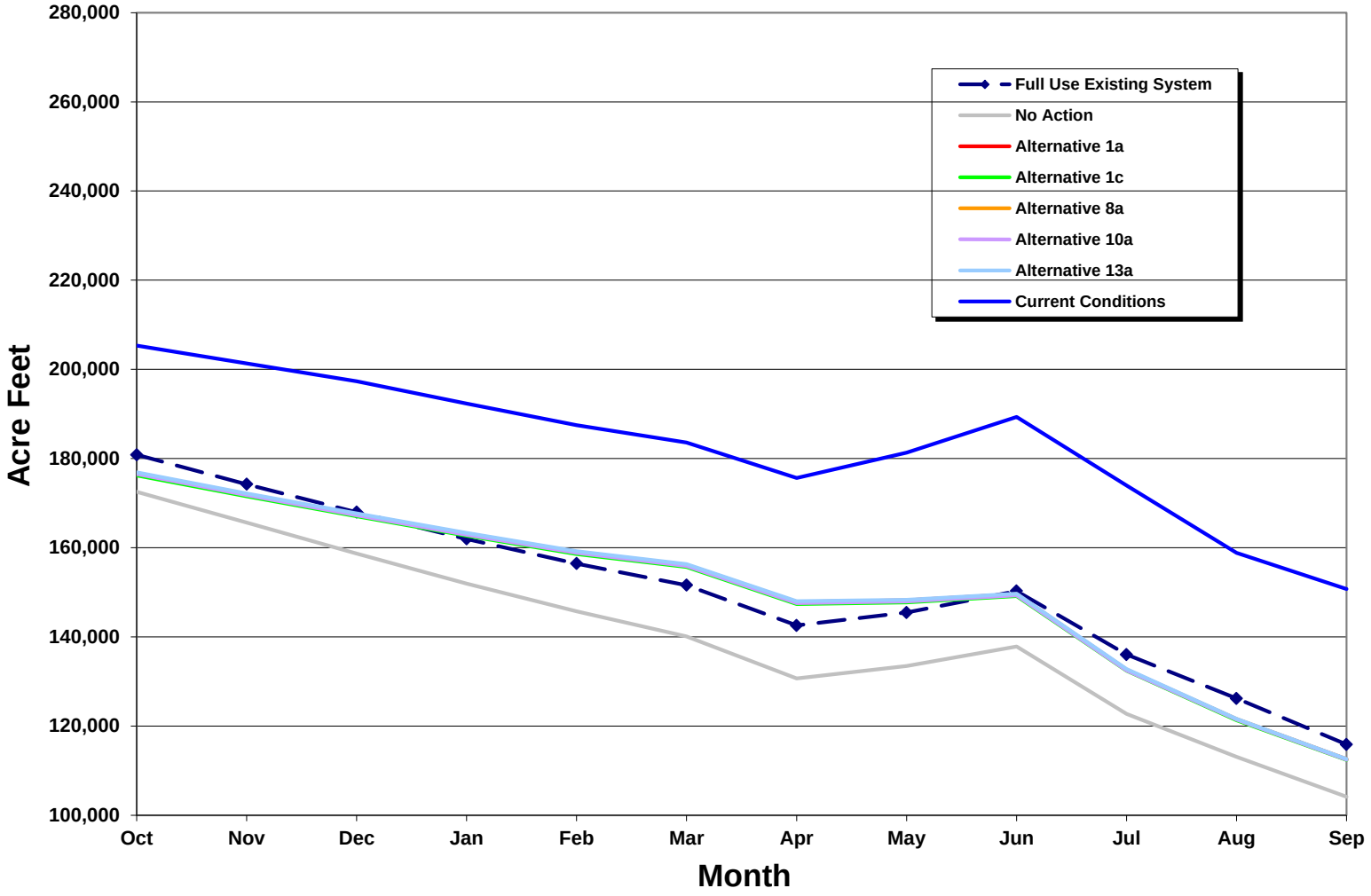


Figure H-2.9 Dillon Reservoir End-of-Month Content at Node #4250 – Wet Year Average

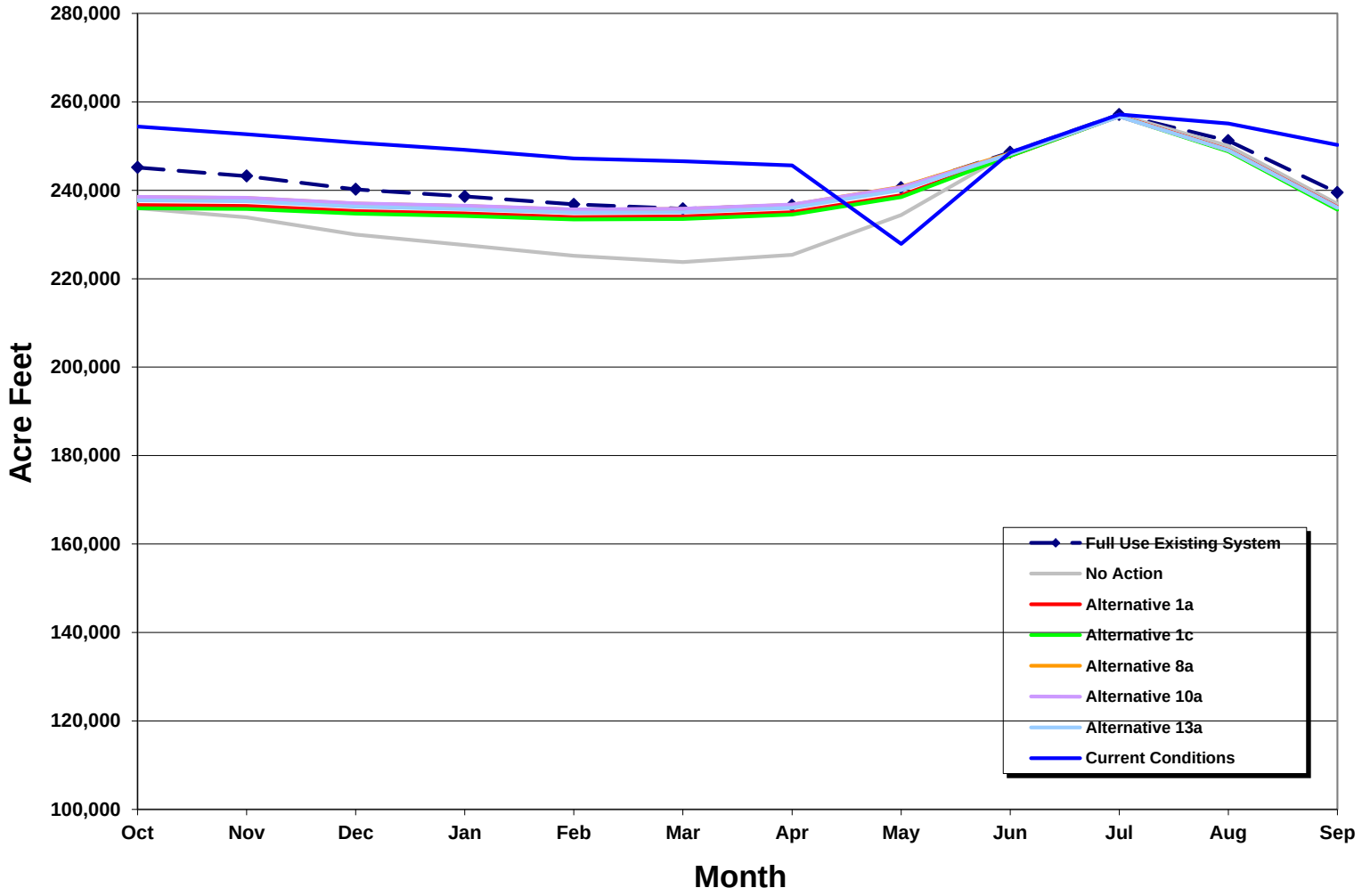


Figure H-2.10 Dillon Reservoir Elevation\Depth End-of-Month Content at Node #4250 – Average Year

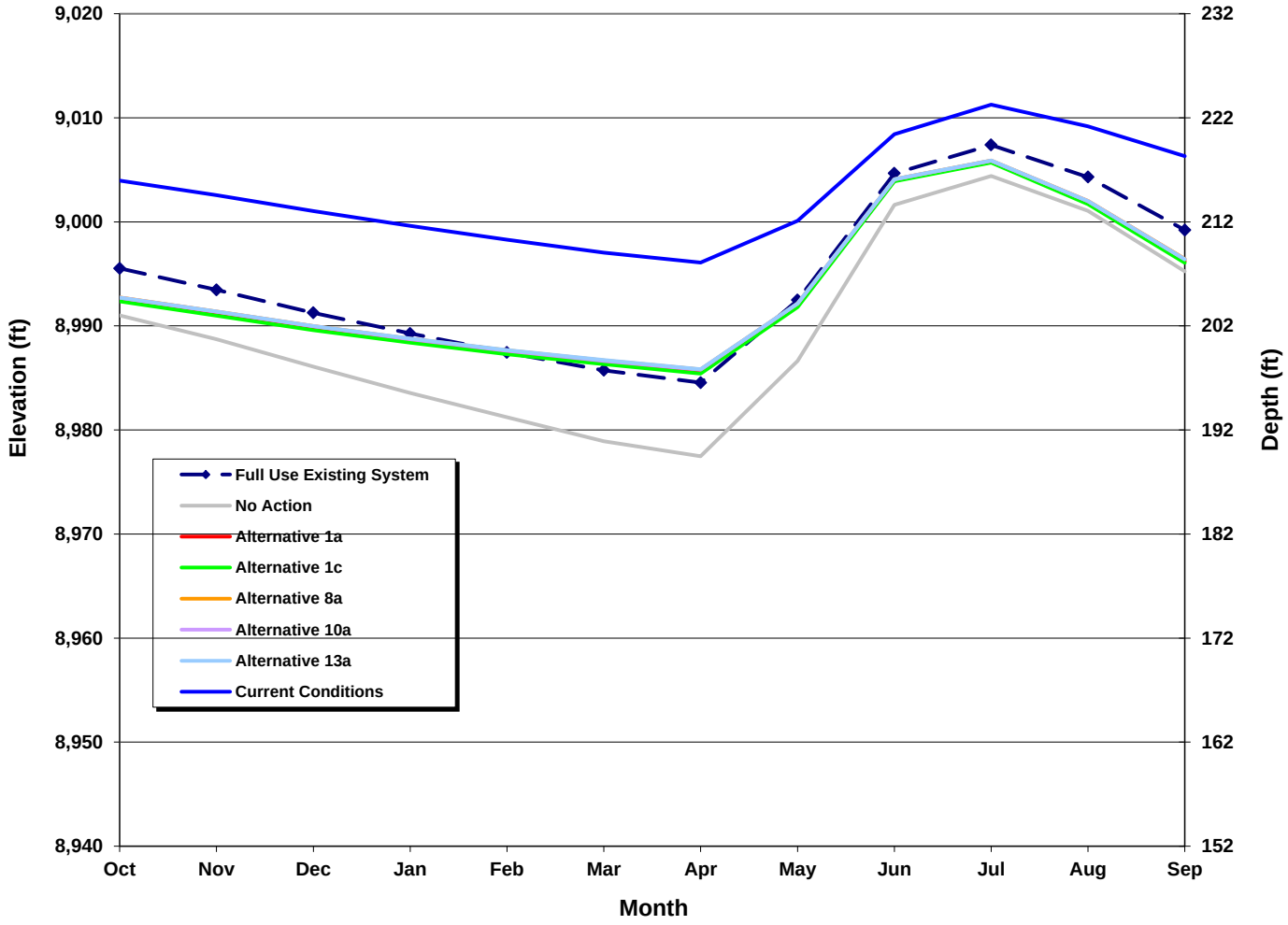


Figure H-2.11 Dillon Reservoir Elevation\Depth End-of-Month Content at Node #4250 – Dry Year Average

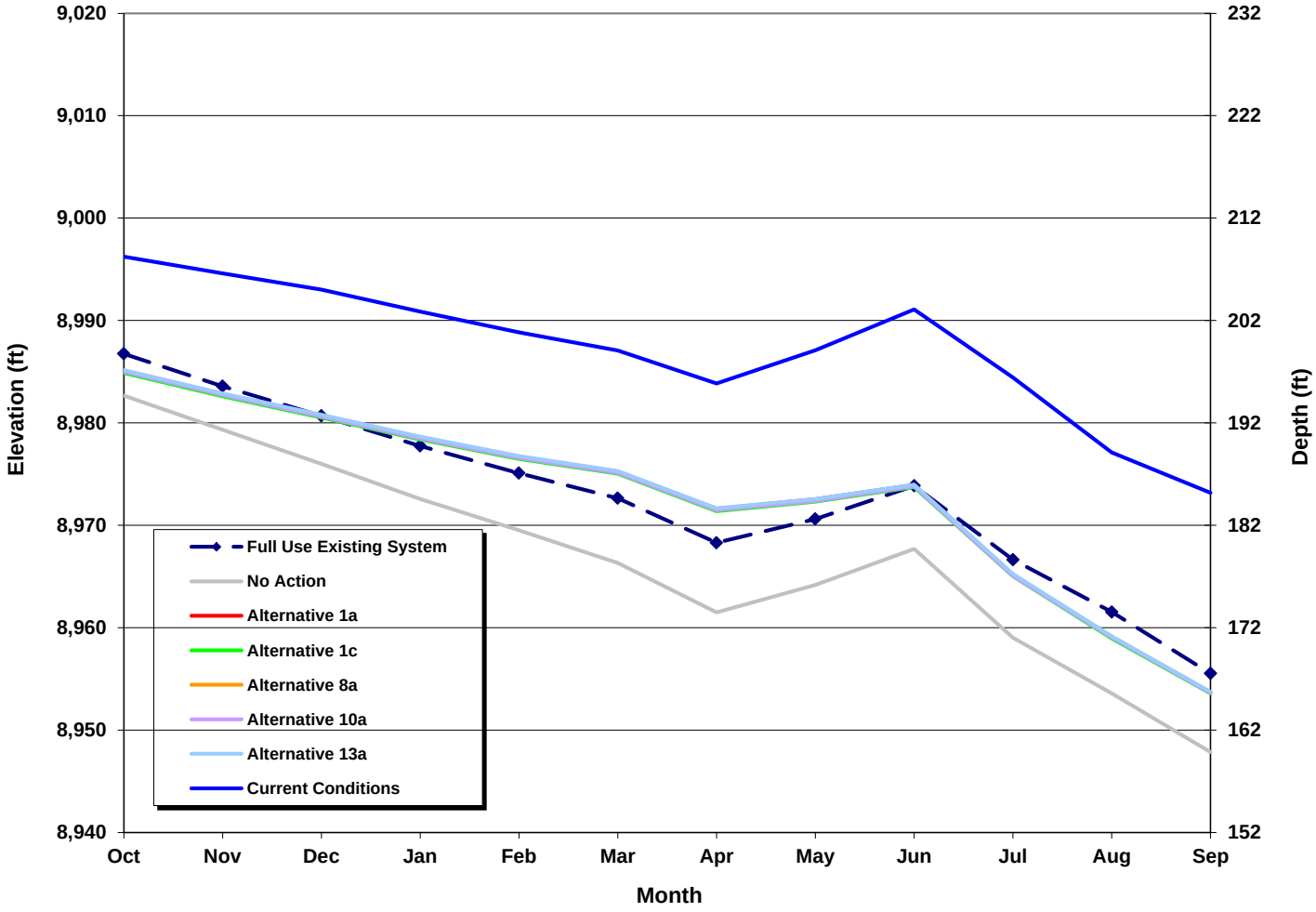


Figure H-2.12 Dillon Reservoir Elevation\Depth End-of-Month Content at Node #4250 – Wet Year Average

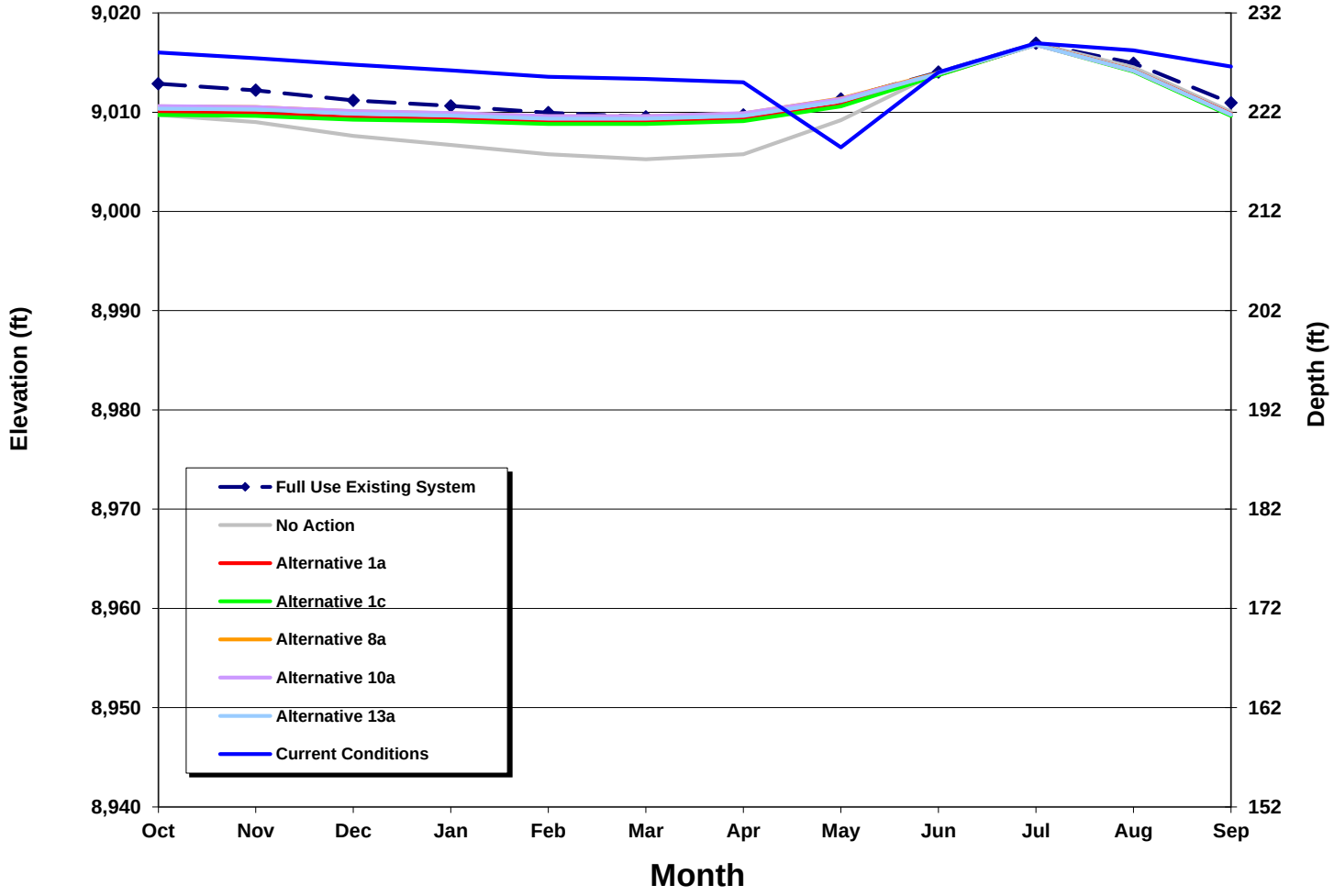


Figure H-2.13 Wolford Mountain Reservoir End-of-Month Content at Node #1600 – Average Year

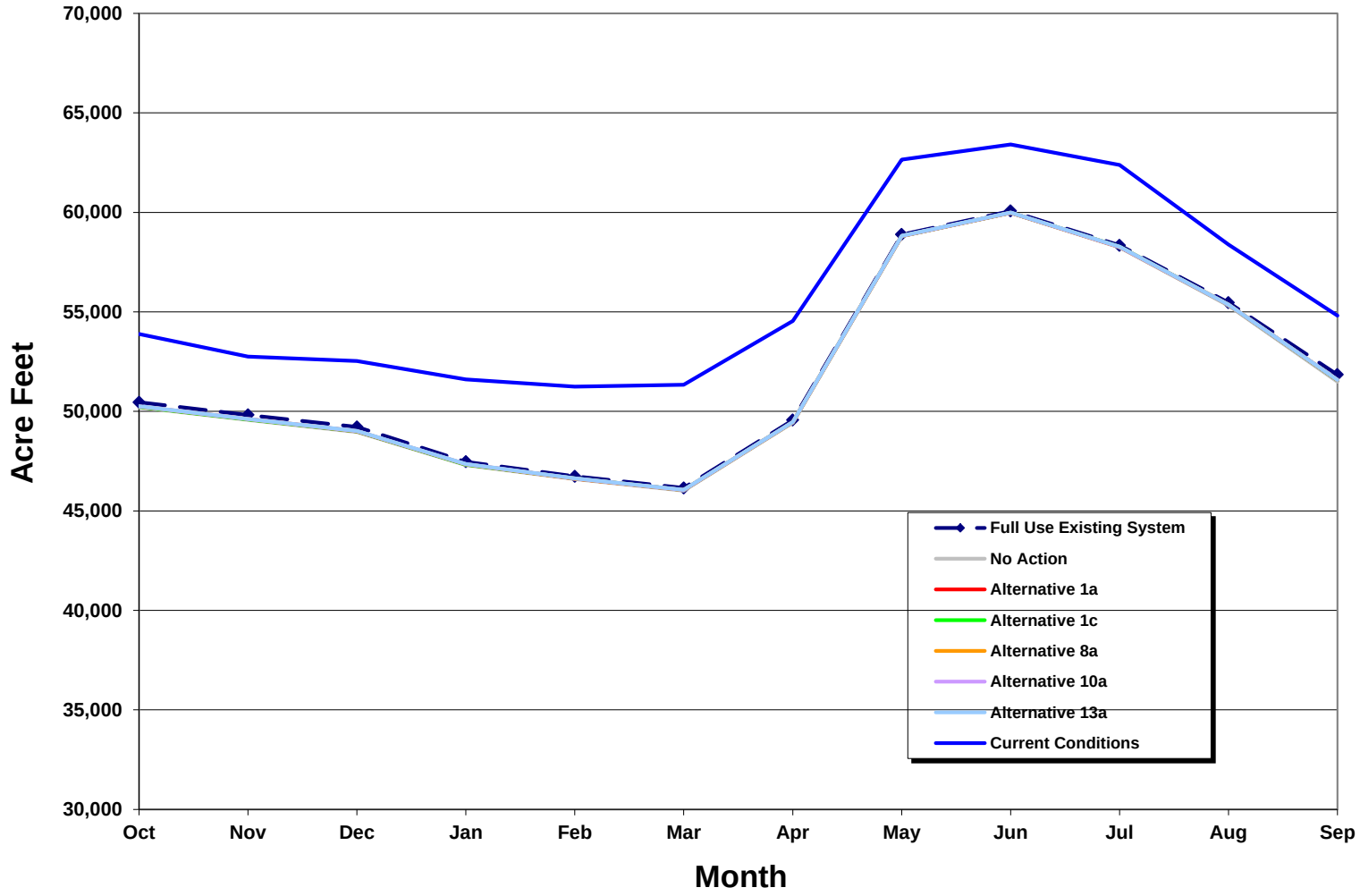


Figure H-2.14 Wolford Mountain Reservoir End-of-Month Content at Node #1600 – Dry Year Average

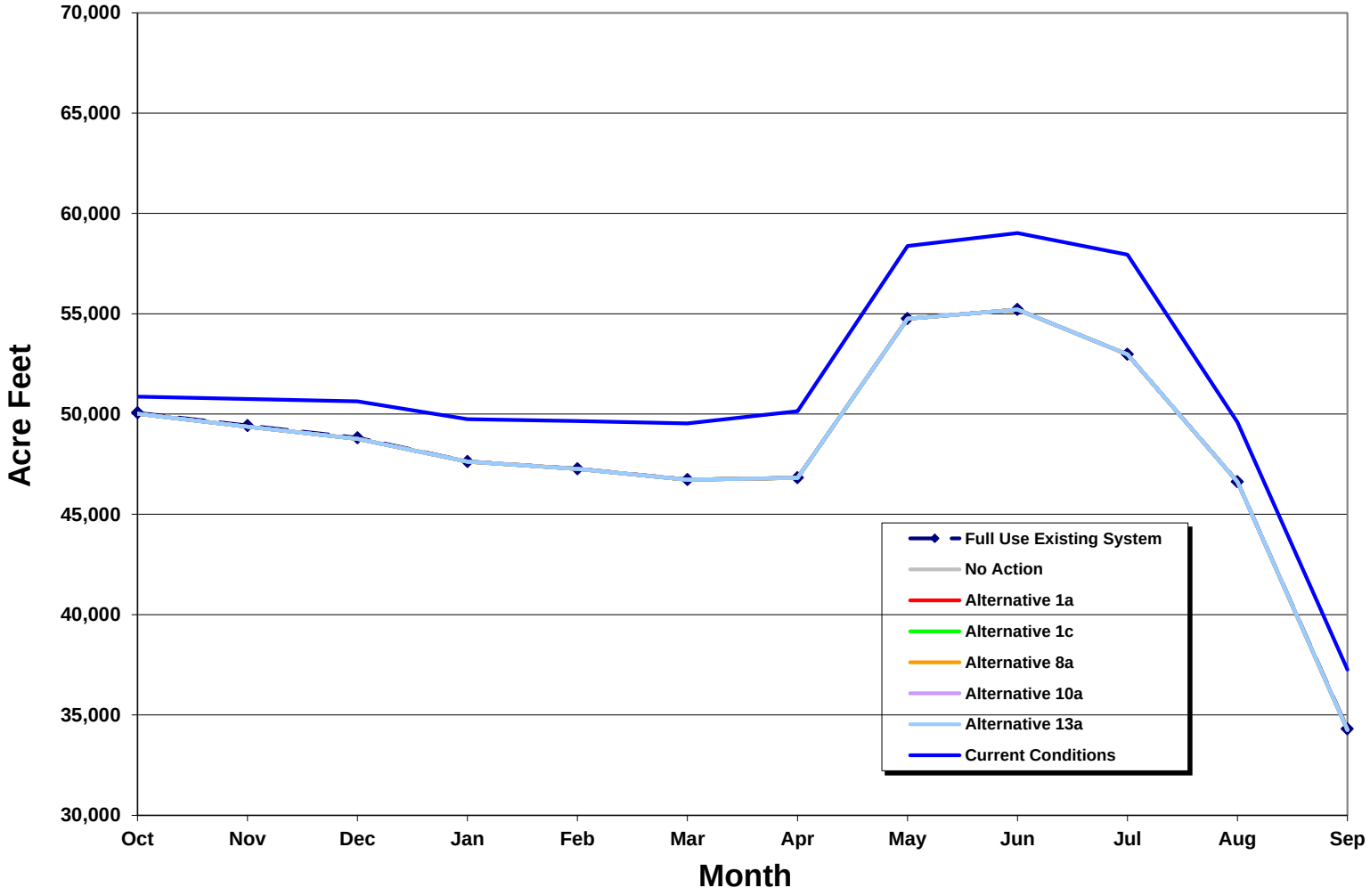


Figure H-2.15 Wolford Mountain Reservoir End-of-Month Content at Node #1600 – Wet Year Average

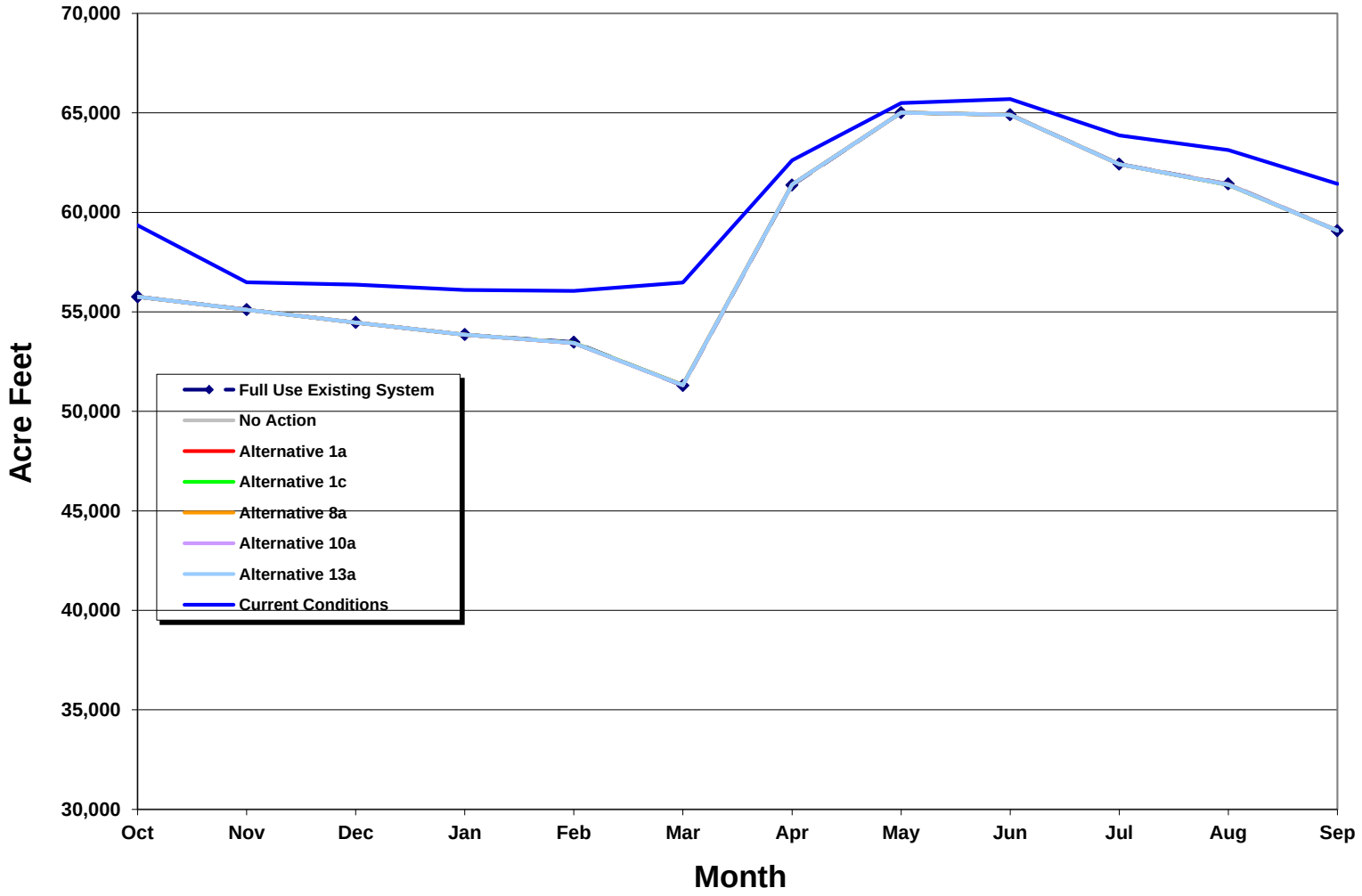


Figure H-2.16 Wolford Mountain Reservoir Elevation\Depth End-of-Month Content at Node #1600 – Average Year

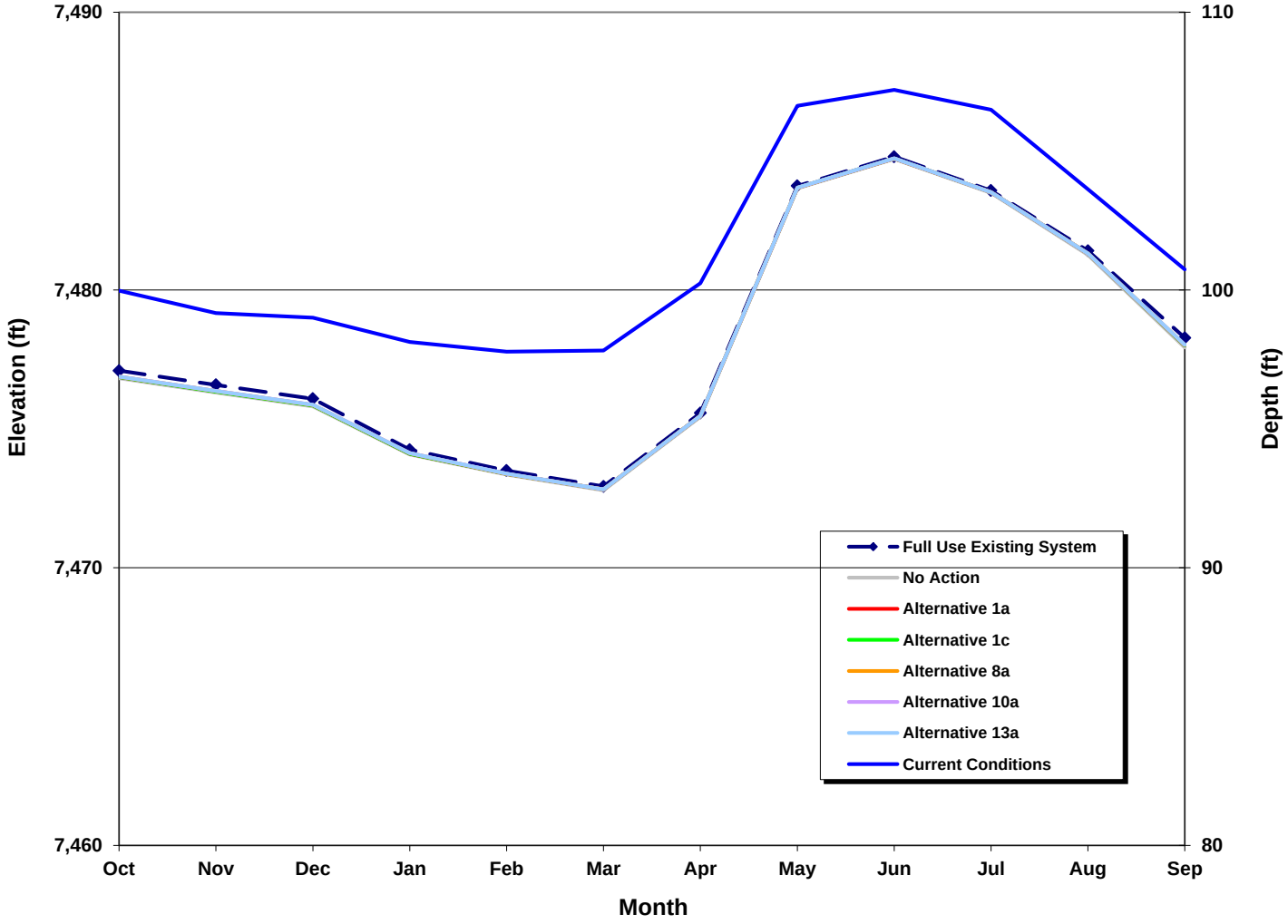


Figure H-2.17 Wolford Mountain Reservoir Elevation\Depth End-of-Month Content at Node #1600 – Dry Year Average

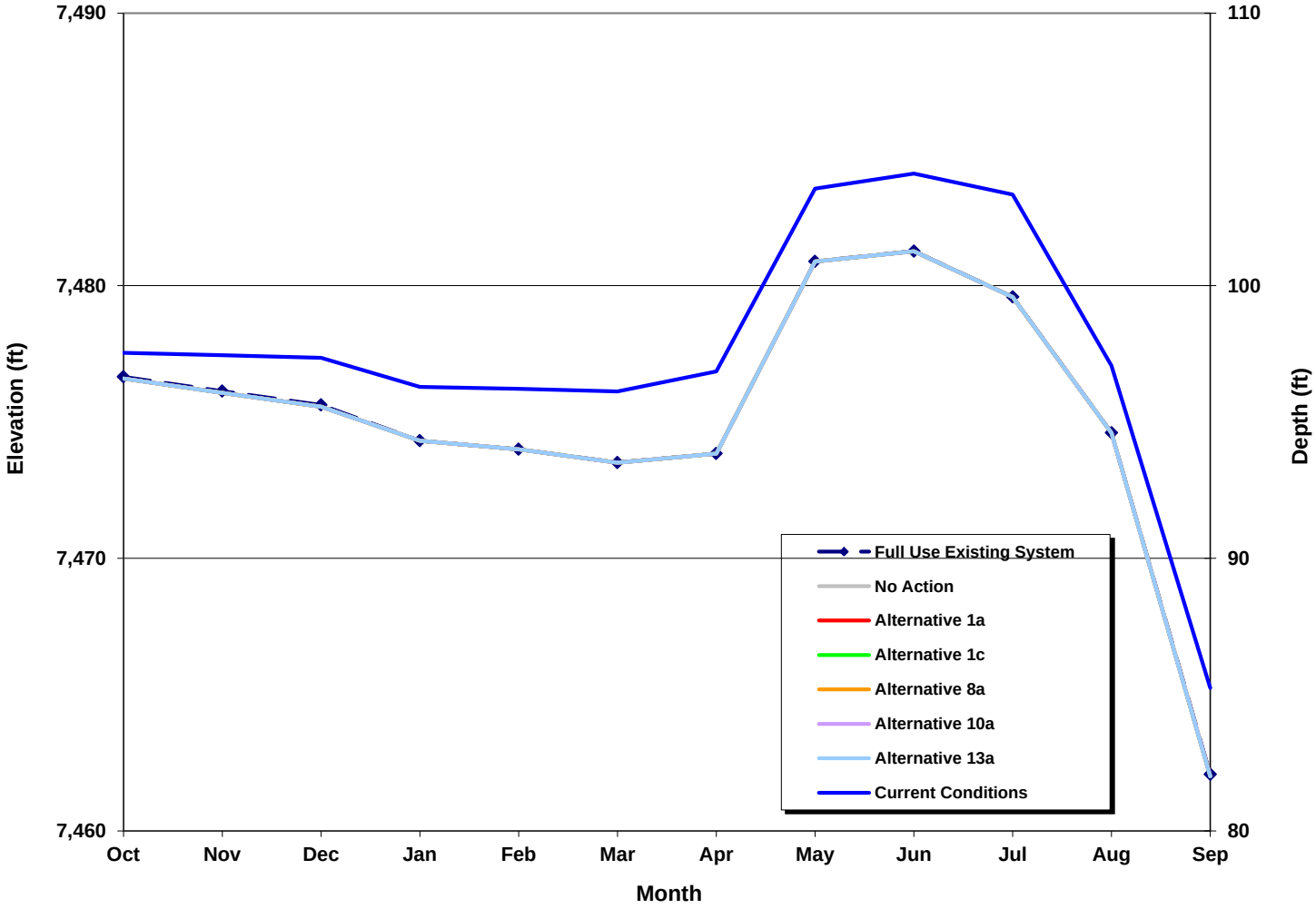


Figure H-2.18 Wolford Mountain Reservoir Elevation\Depth End-of-Month Content at Node #1600 – Wet Year Average

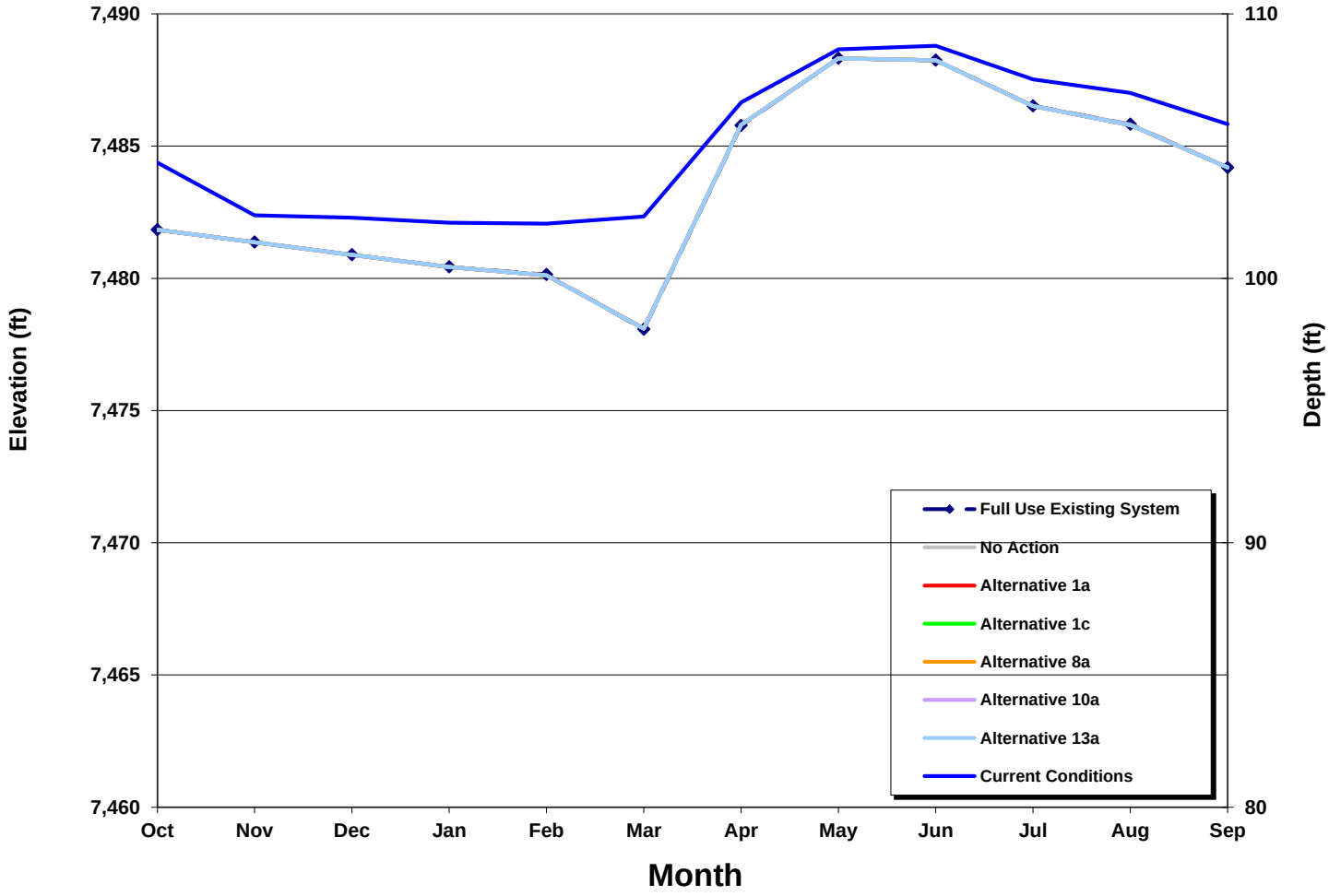


Figure H-2.19 Gross Reservoir End-of-Month Content at Node #57140 – Average Year

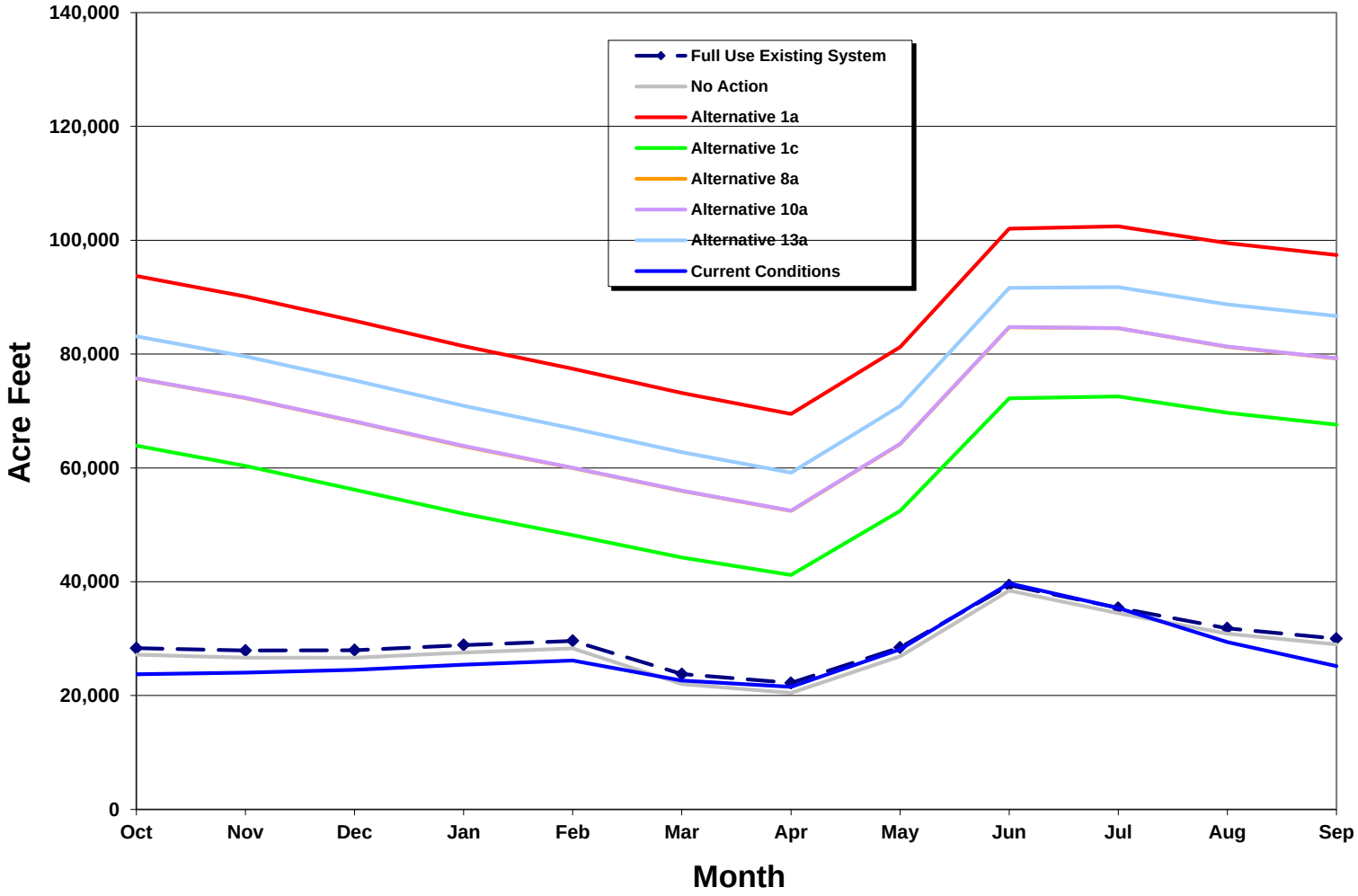


Figure H-2.20 Gross Reservoir End-of-Month Content at Node #57140 – Dry Year Average

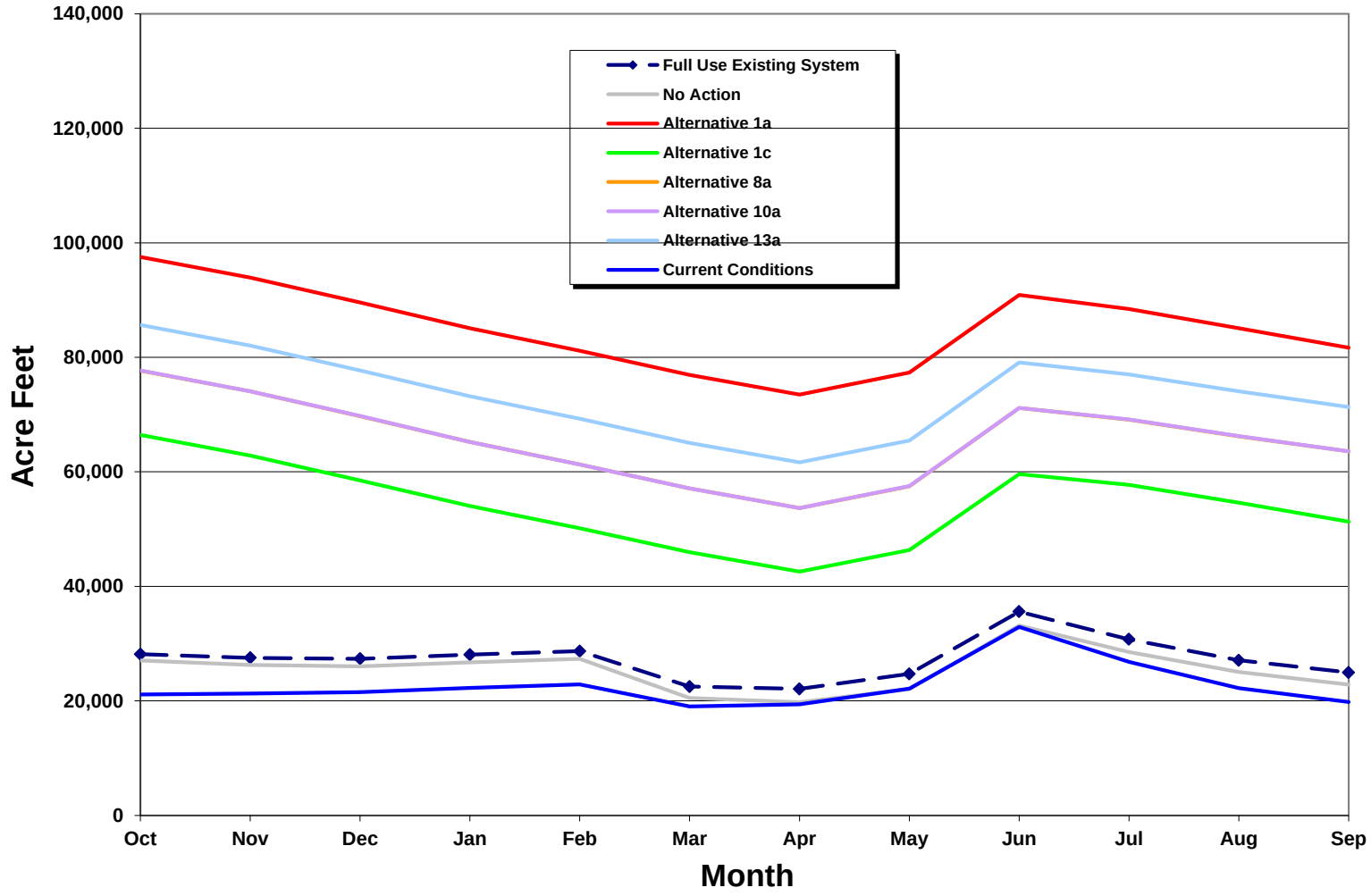


Figure H-2.21 Gross Reservoir End-of-Month Content at Node #57140 – Wet Year Average

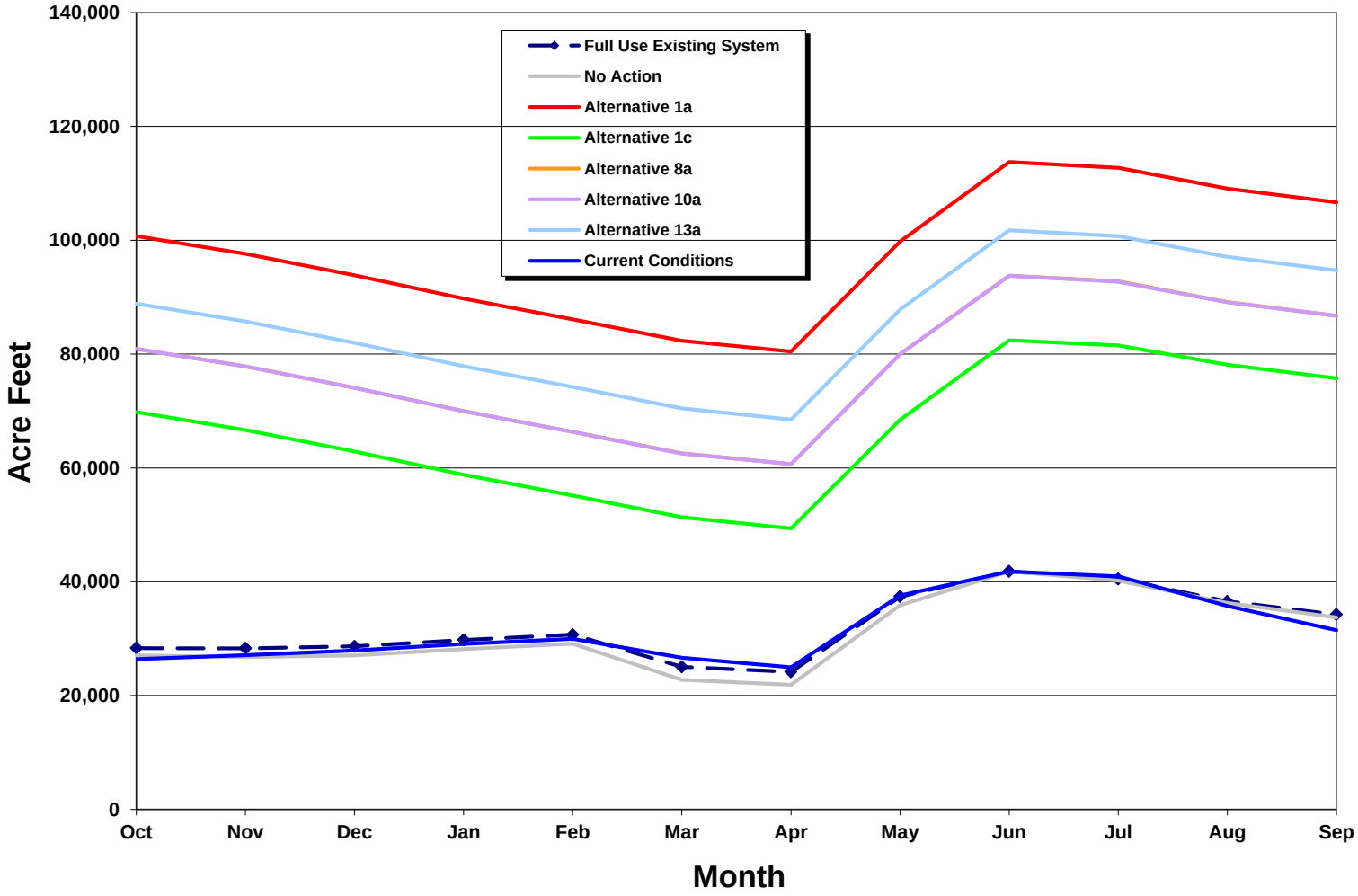


Figure H-2.22 Gross Reservoir Elevation\Depth End-of-Month Content at Node #57140 – Average Year

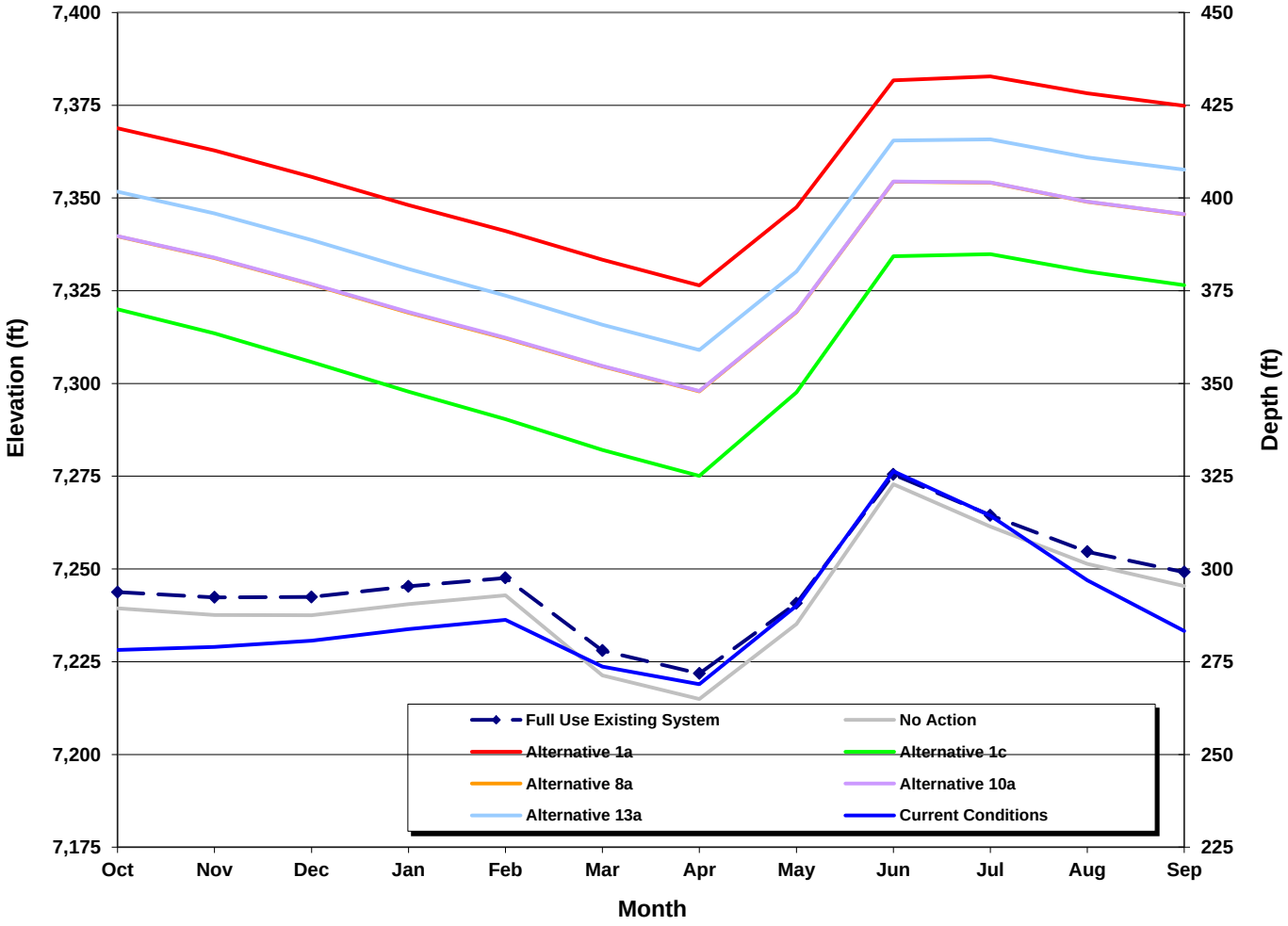


Figure H-2.23 Gross Reservoir Elevation\Depth End-of-Month Content at Node #57140 – Dry Year Average

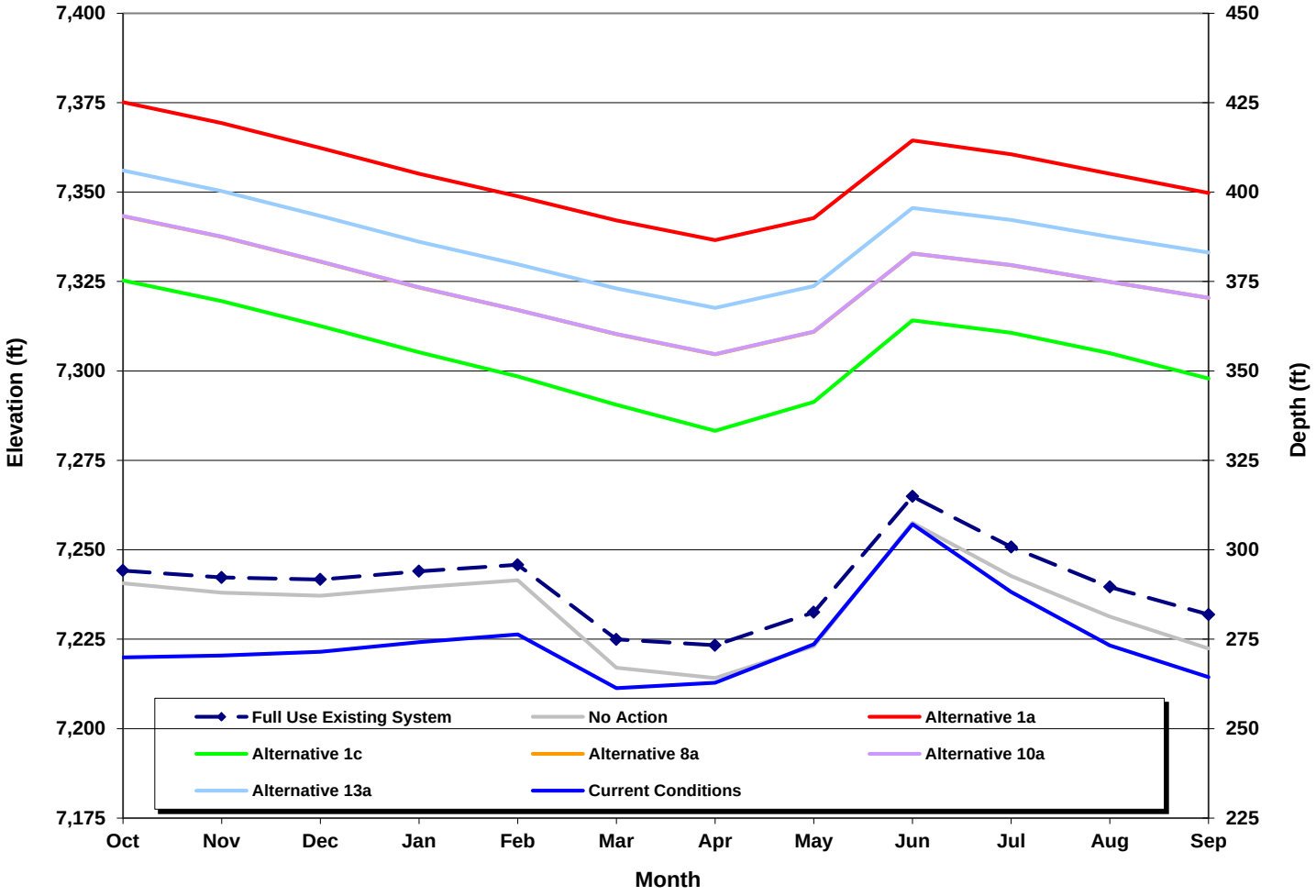


Figure H-2.24 Gross Reservoir Elevation\Depth End-of-Month Content at Node #57140 – Wet Year Average

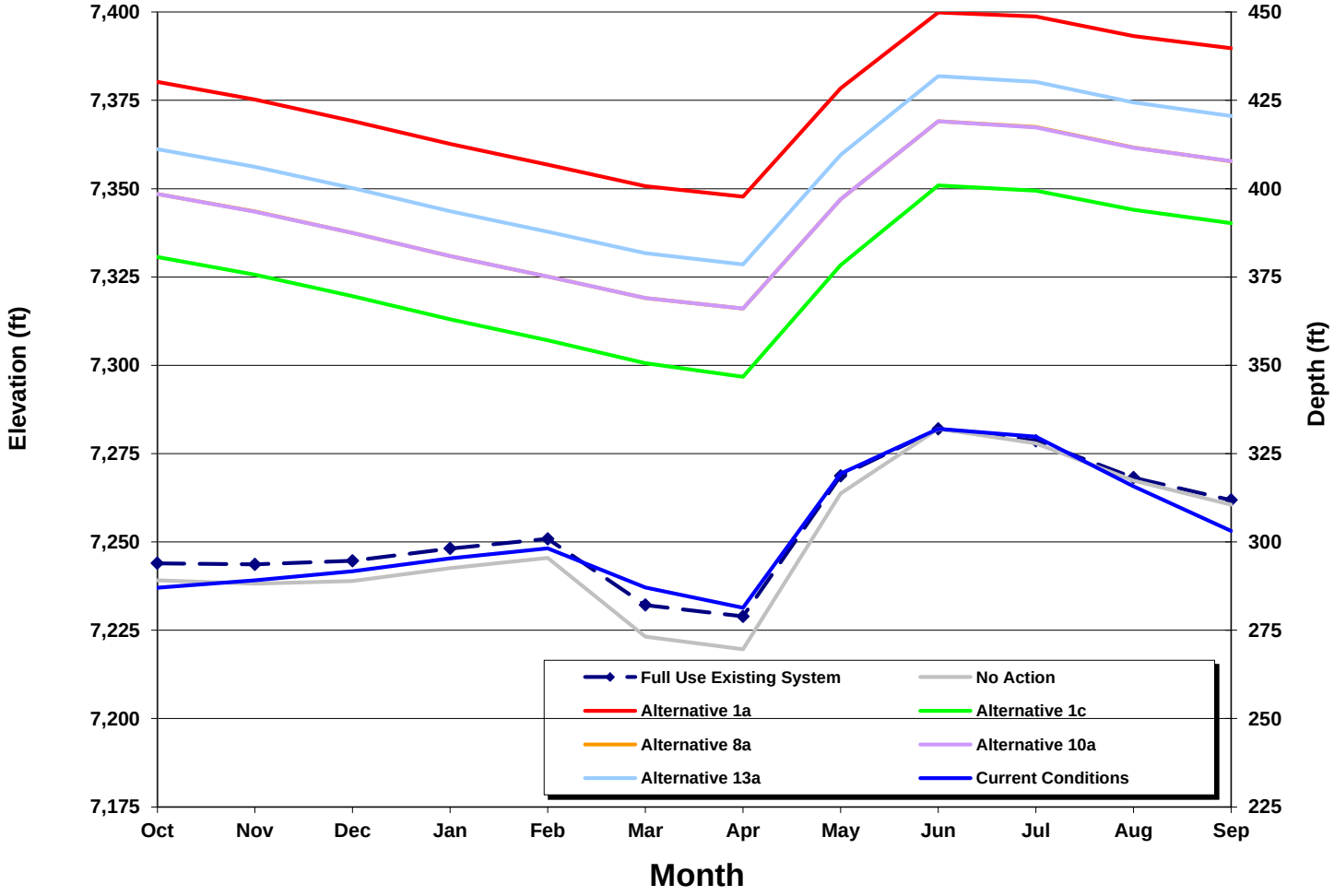


Figure H-2.25 Antero Reservoir End-of-Month Content at Node #50150 – Average Year

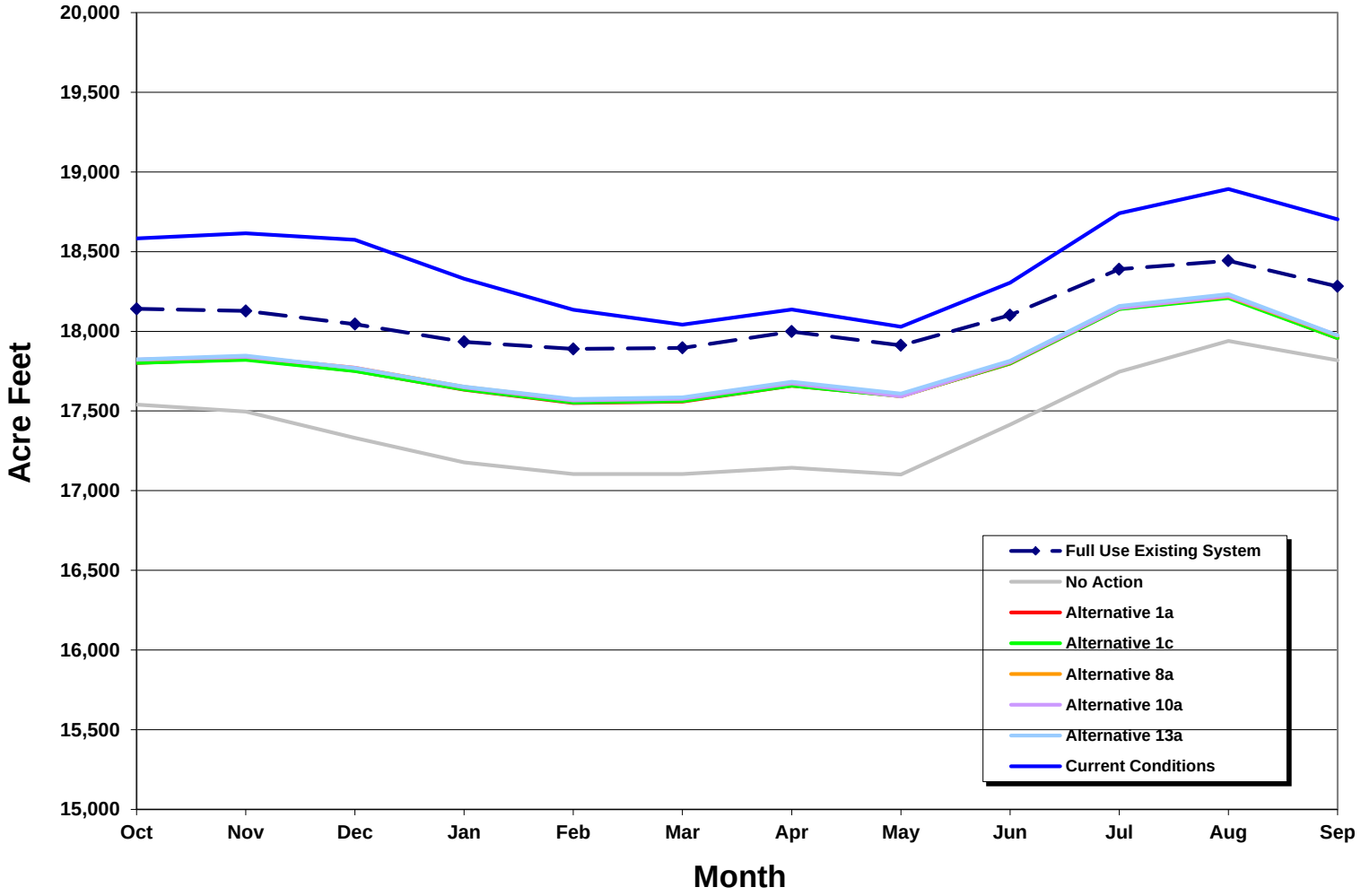


Figure H-2.26 Antero Reservoir End-of-Month Content at Node #50150 – Dry Year Average

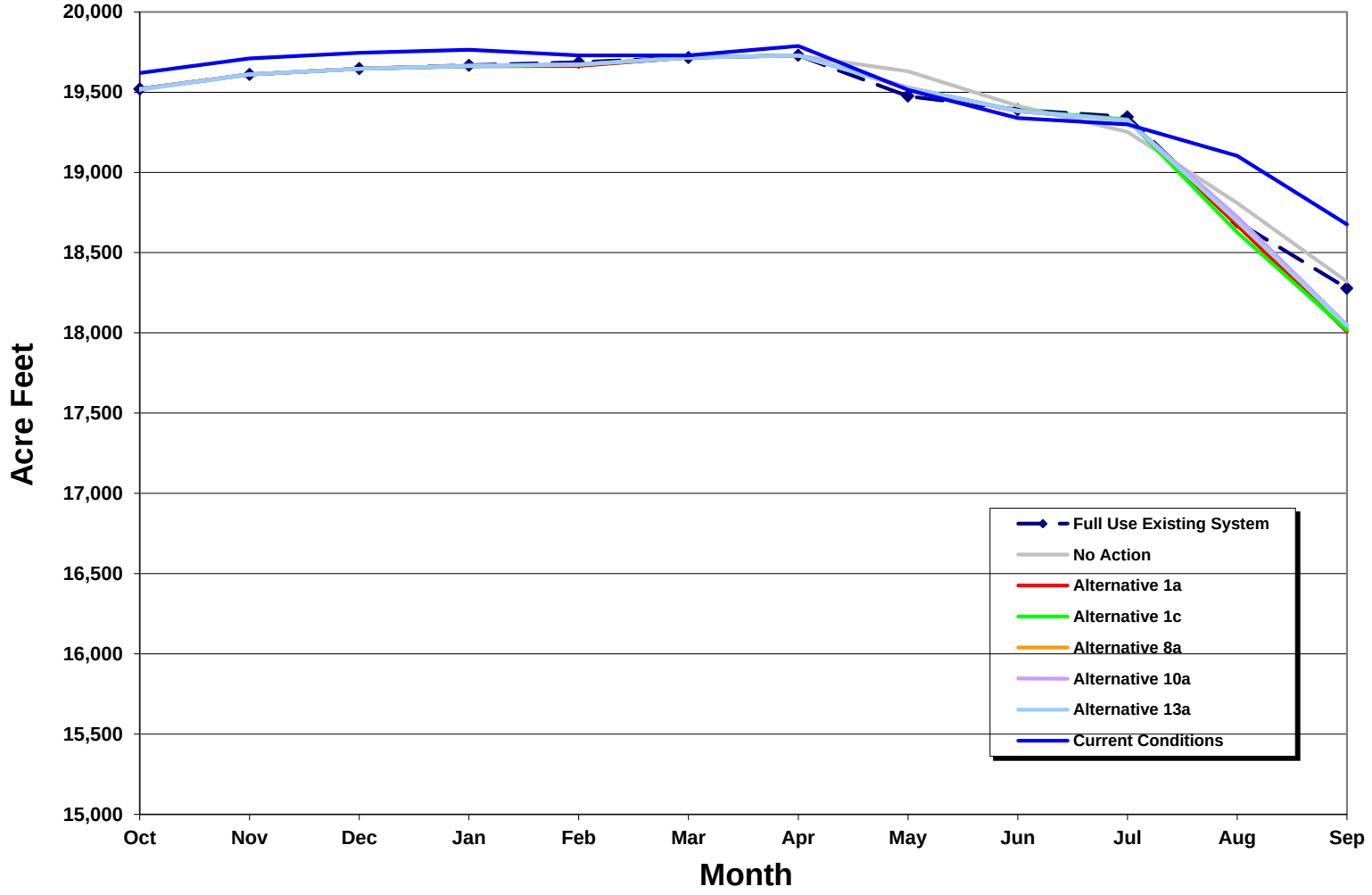


Figure H-2.27 Antero Reservoir End-of-Month Content at Node #50150 – Wet Year Average

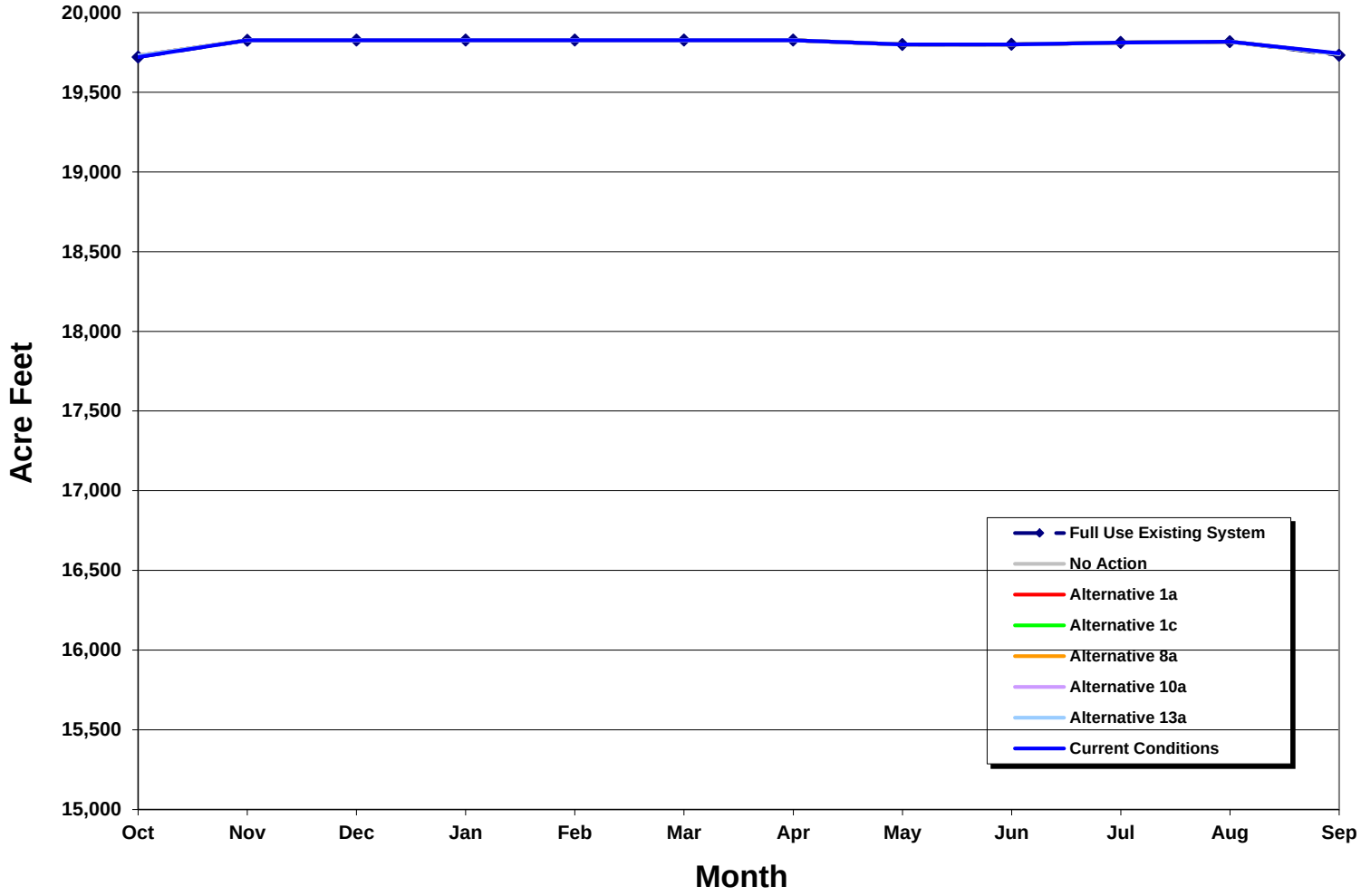


Figure H-2.28 Antero Reservoir Elevation\Depth End-of-Month Content at Node #50150 – Average Year

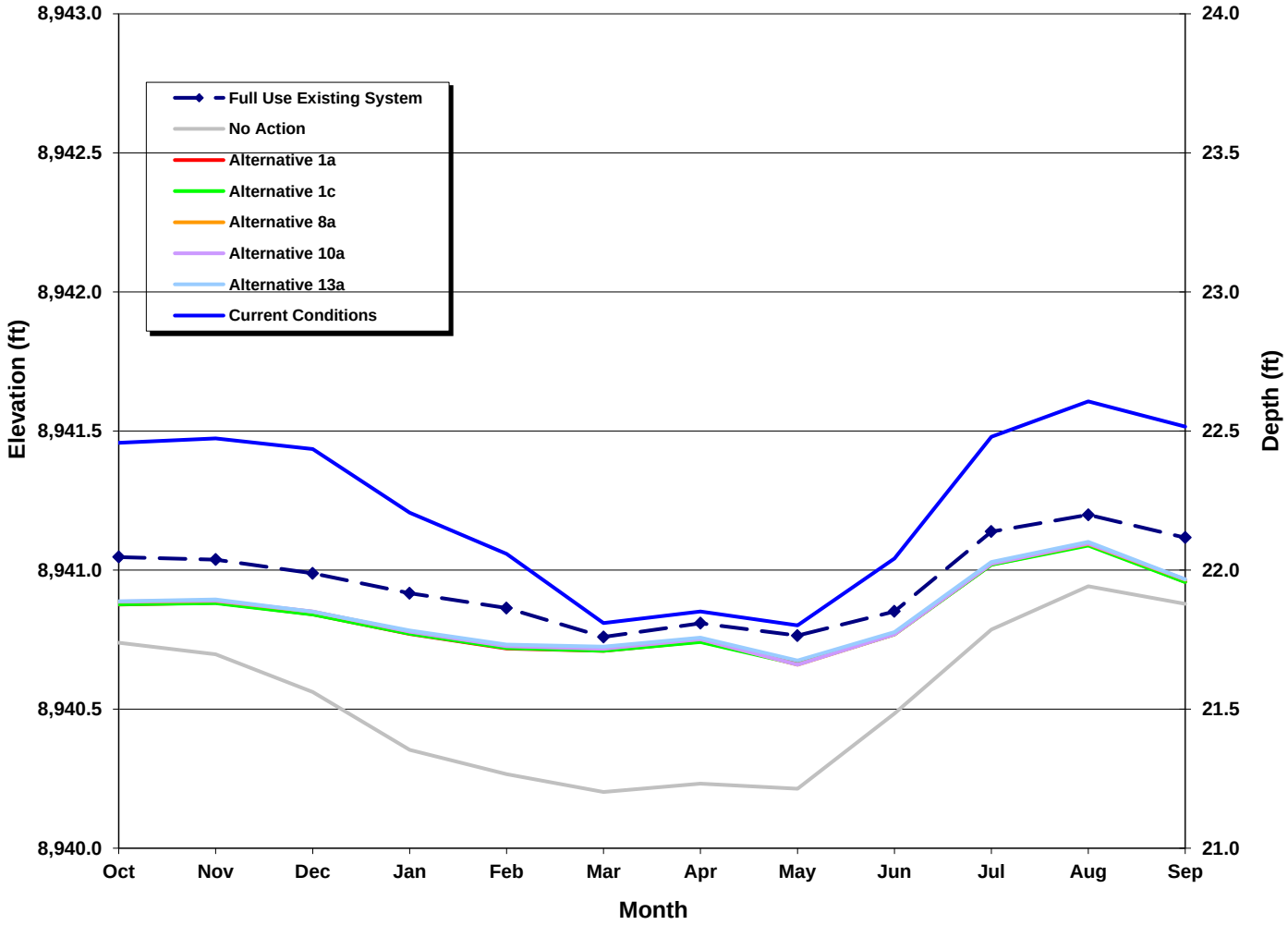


Figure H-2.29 Antero Reservoir Elevation\Depth End-of-Month Content at Node #50150 – Dry Year Average

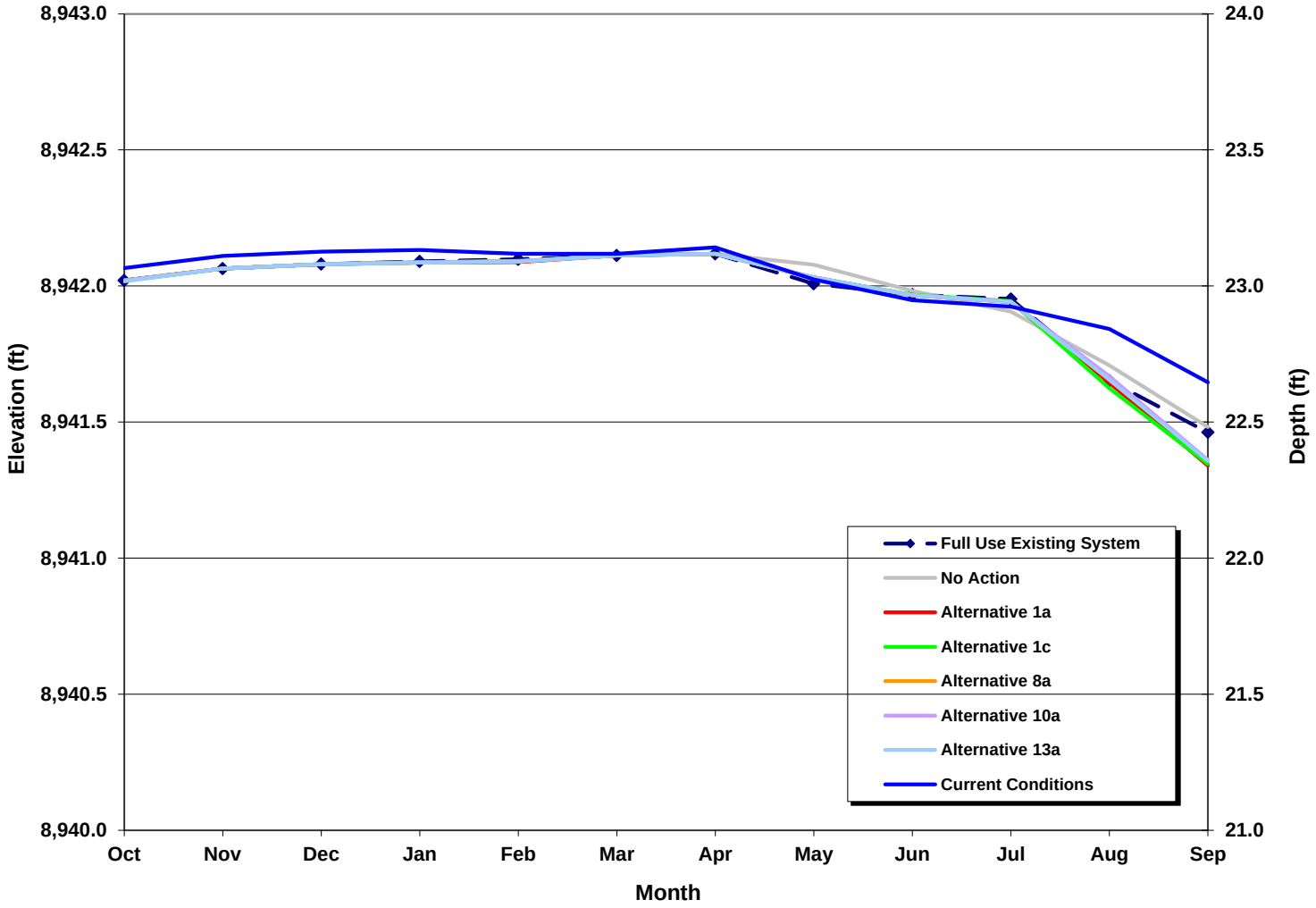


Figure H-2.30 Antero Reservoir Elevation\Depth End-of-Month Content at Node #50150 – Wet Year Average

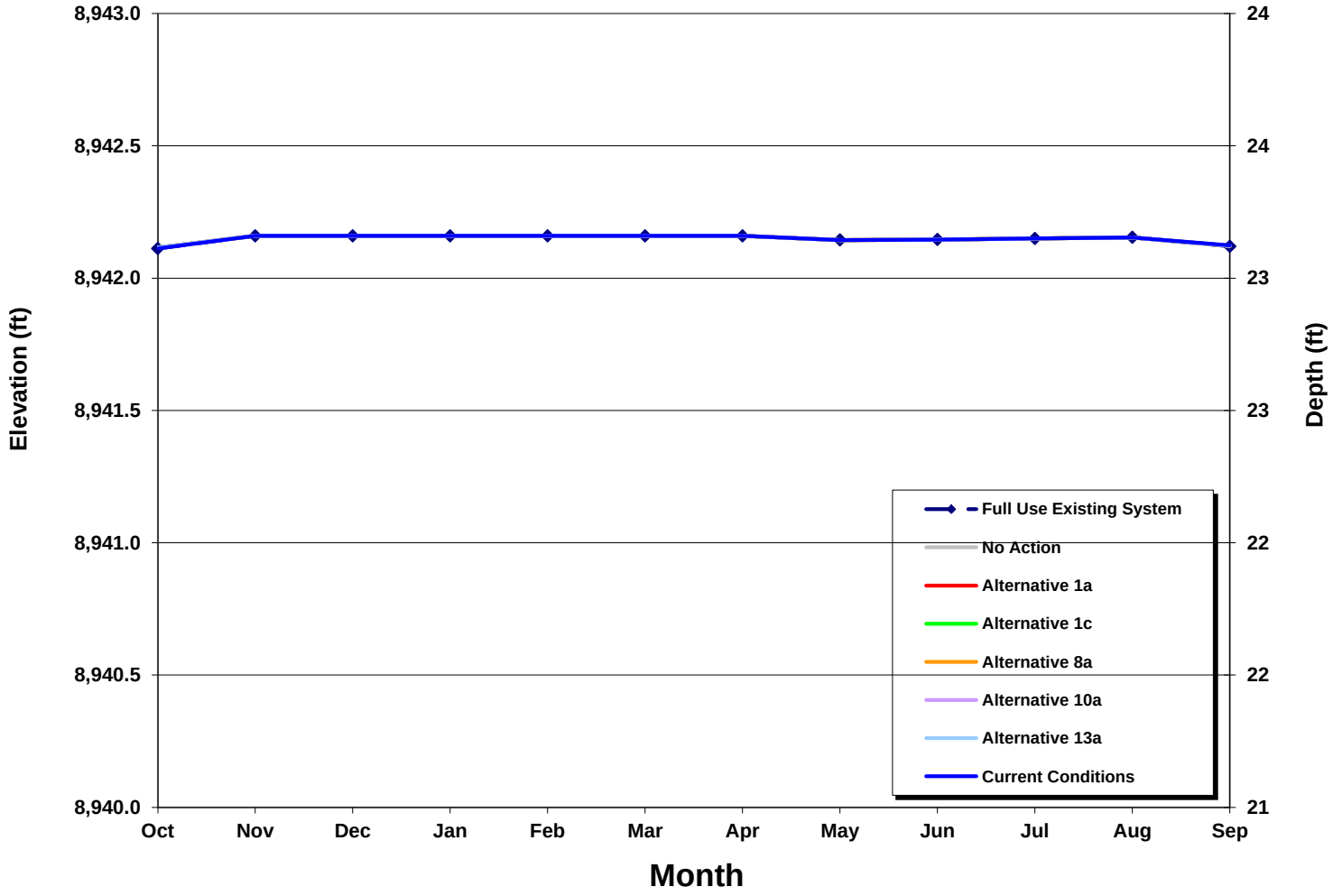


Figure H-2.31 Eleven Mile Canyon Reservoir End-of-Month Content at Node #50300 – Average Year

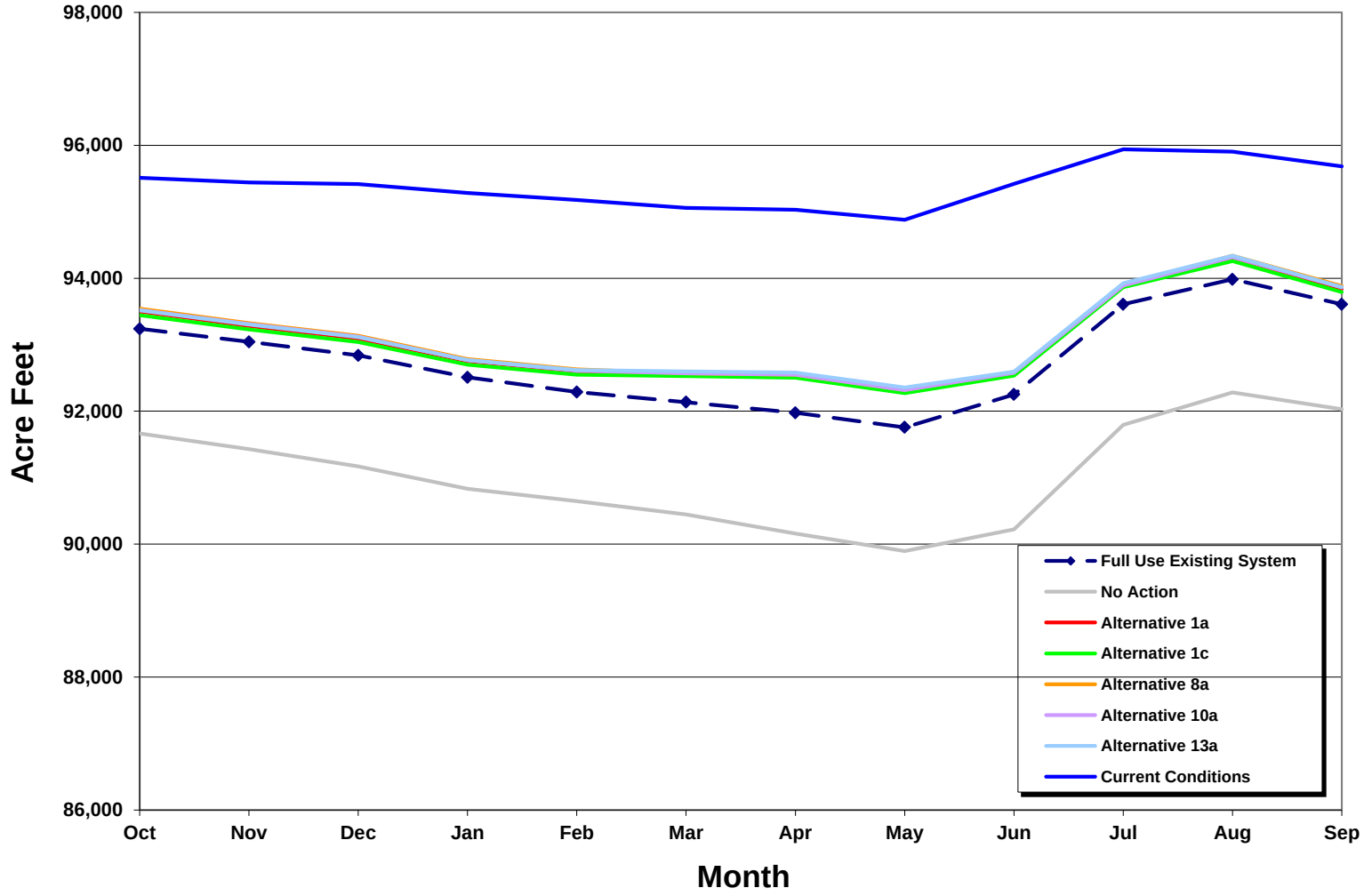


Figure H-2.32 Eleven Mile Canyon Reservoir End-of-Month Content at Node #50300 – Dry Year Average

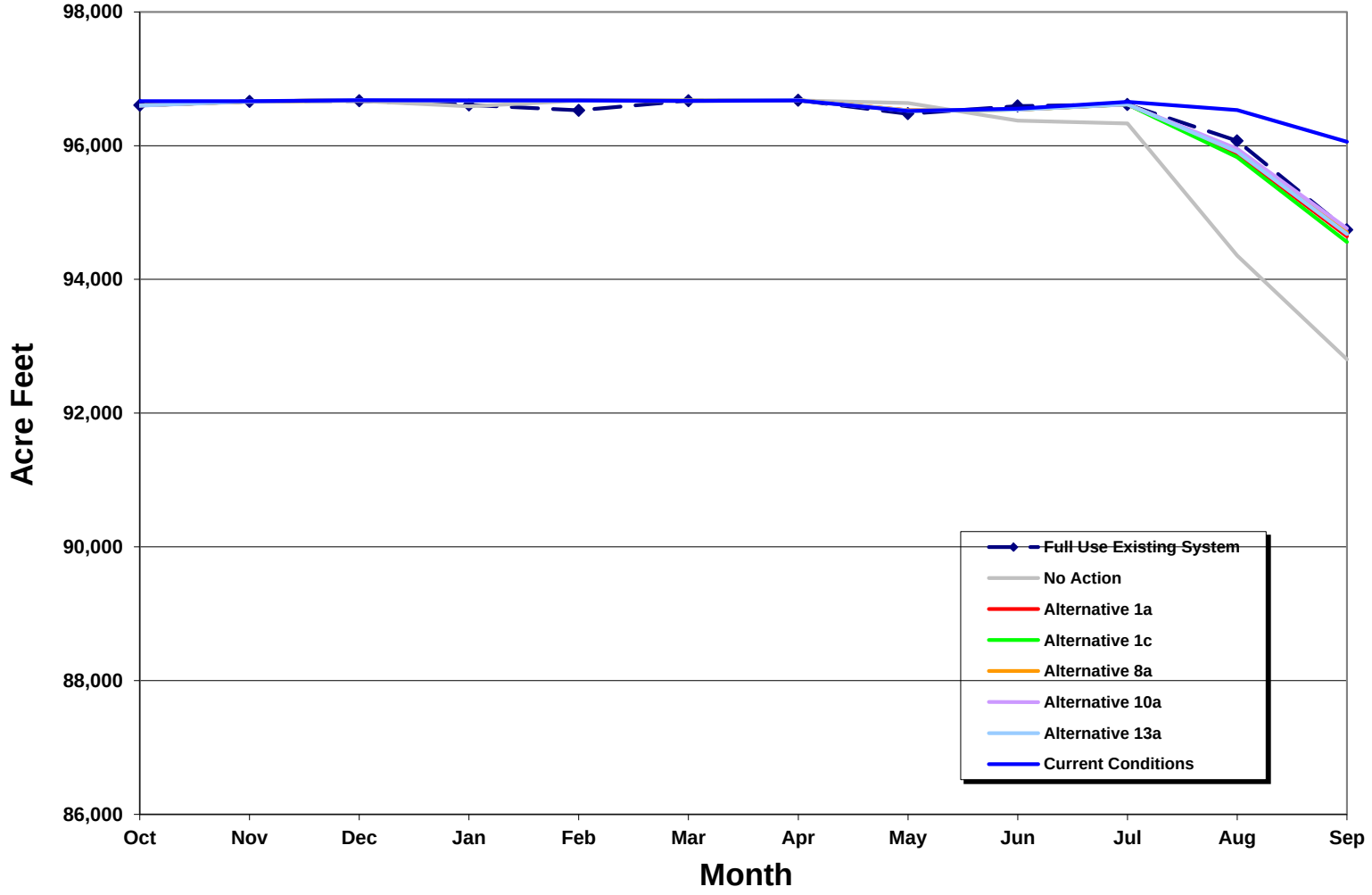


Figure H-2.33 Eleven Mile Canyon Reservoir End-of-Month Content at Node #50300 – Wet Year Average

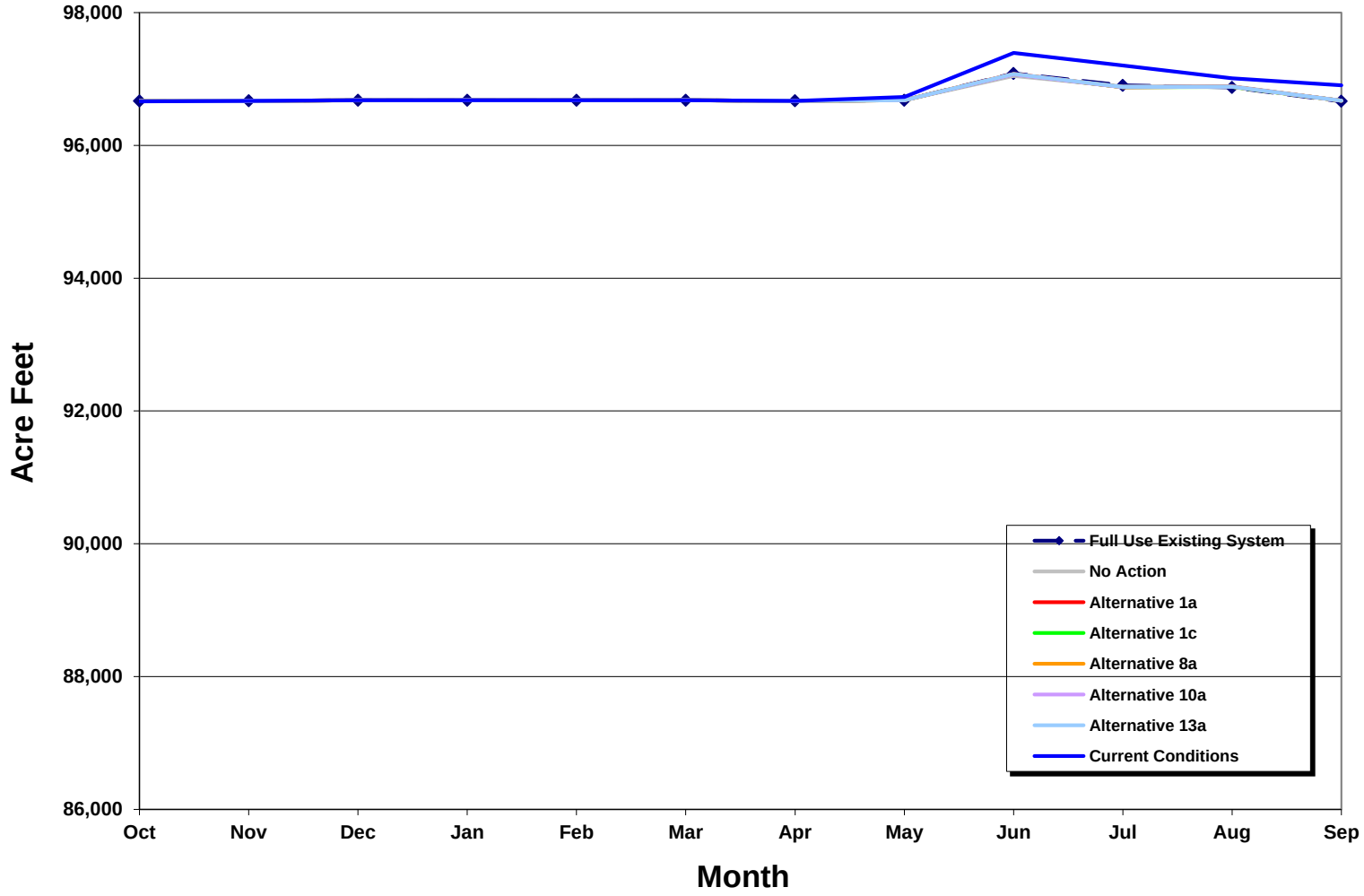


Figure H-2.34 Eleven Mile Canyon Reservoir Elevation\Depth End-of-Month Content at Node #50300 – Average Year

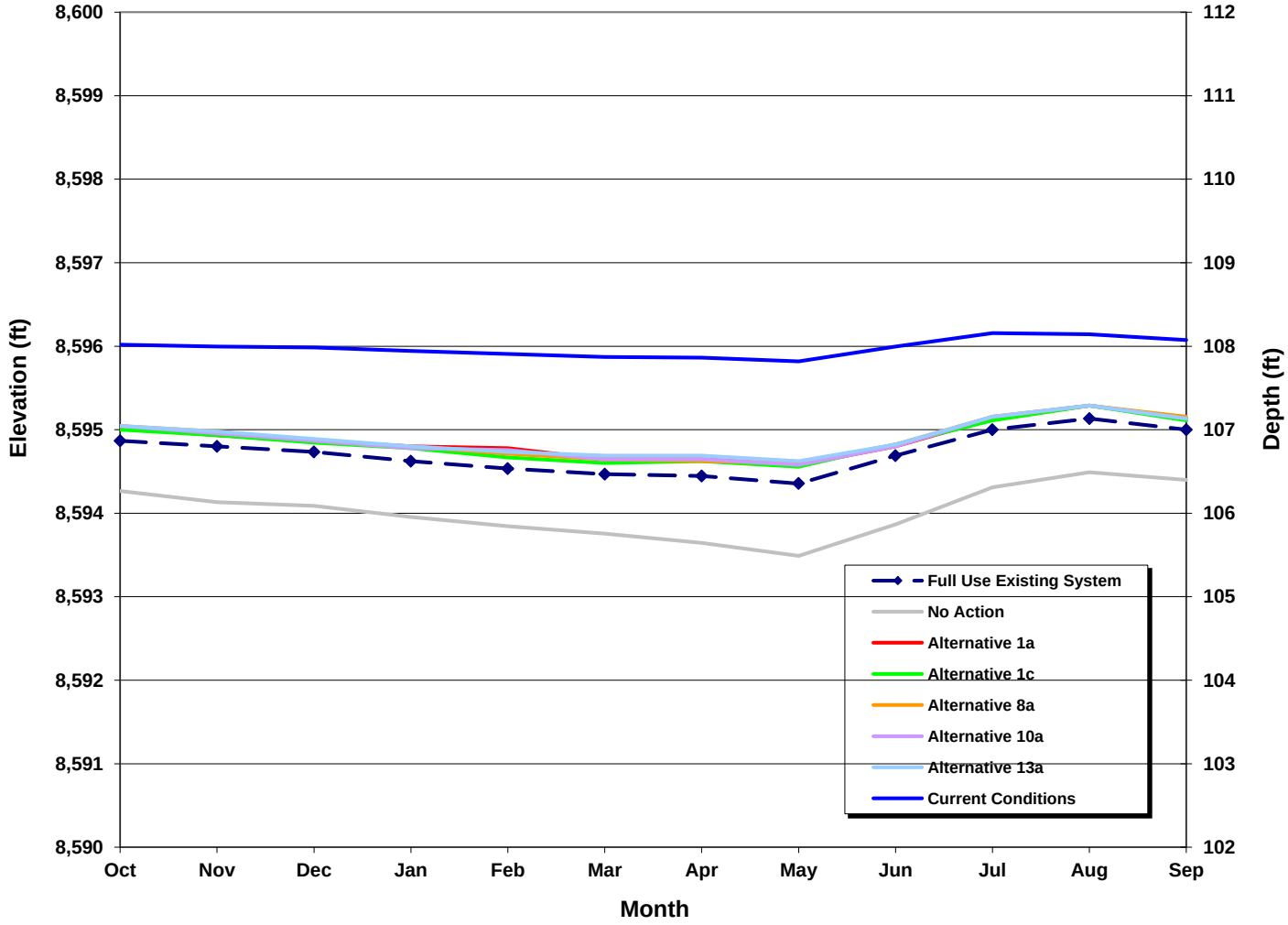


Figure H-2.35 Eleven Mile Canyon Reservoir Elevation\Depth End-of-Month Content at Node #50300 – Dry Year Average

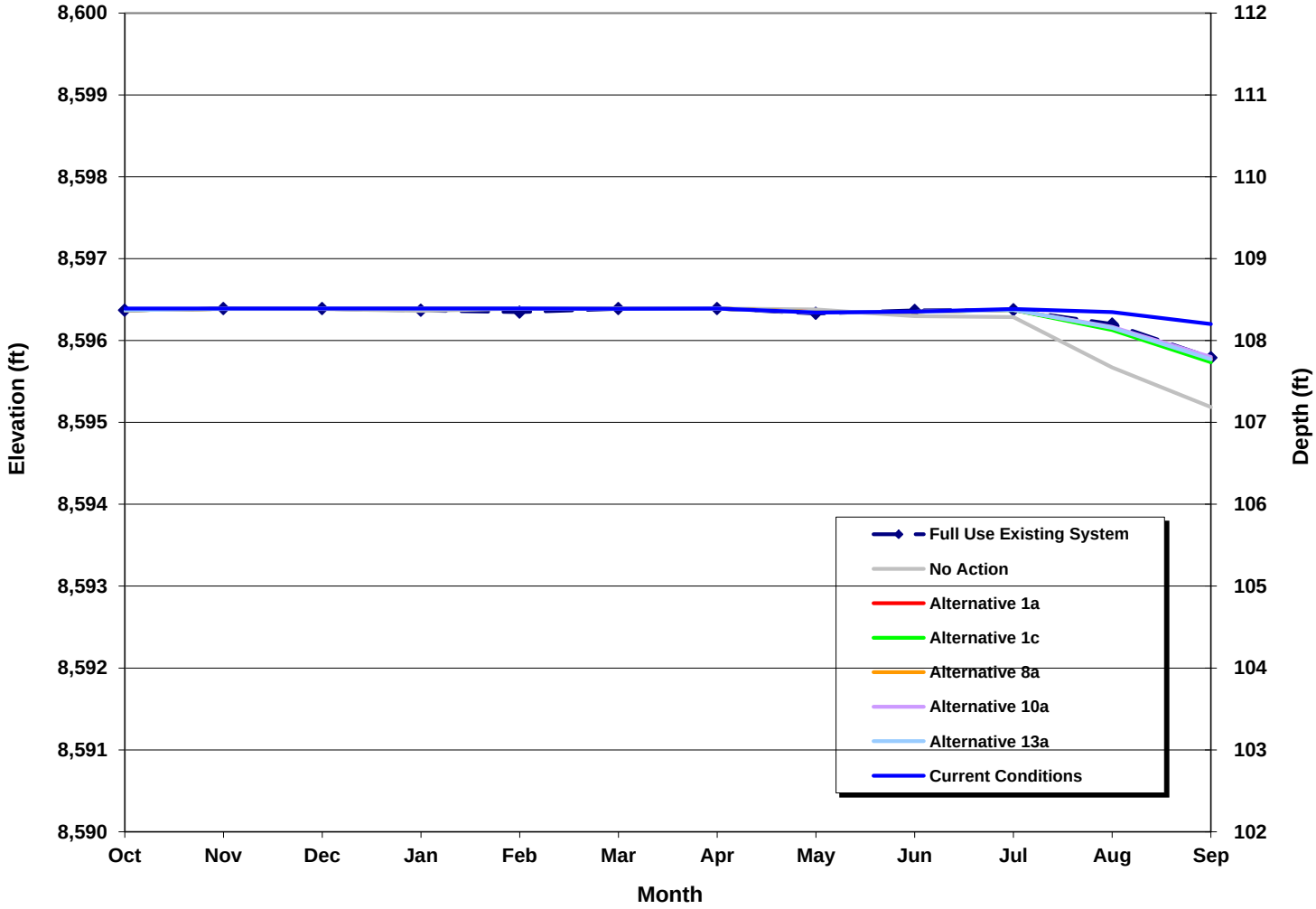


Figure H-2.36 Eleven Mile Canyon Reservoir Elevation\Depth End-of-Month Content at Node #50300 – Wet Year Average

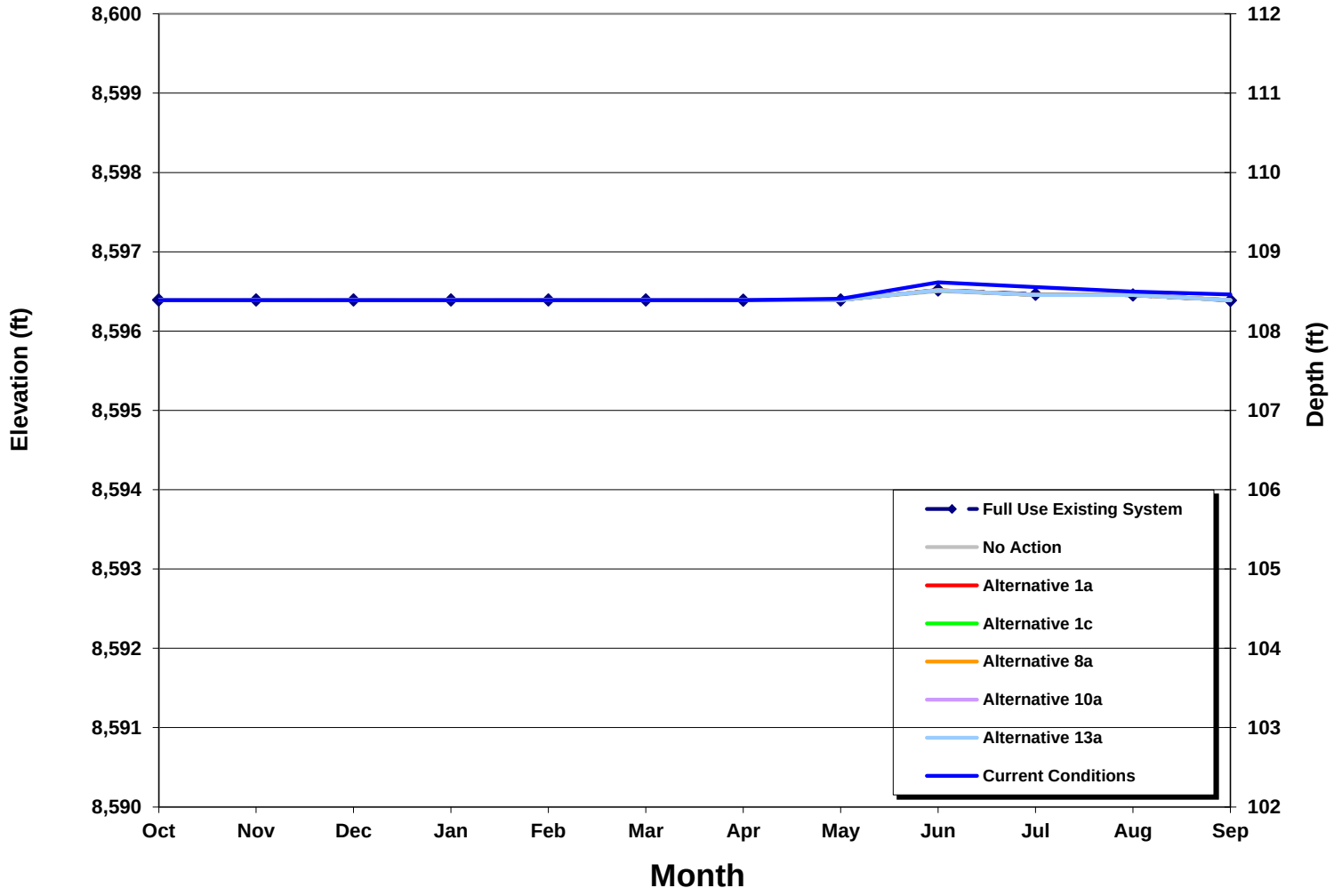


Figure H-2.37 Cheesman Reservoir Content End-of-Month Content at Node #50450 – Average Year

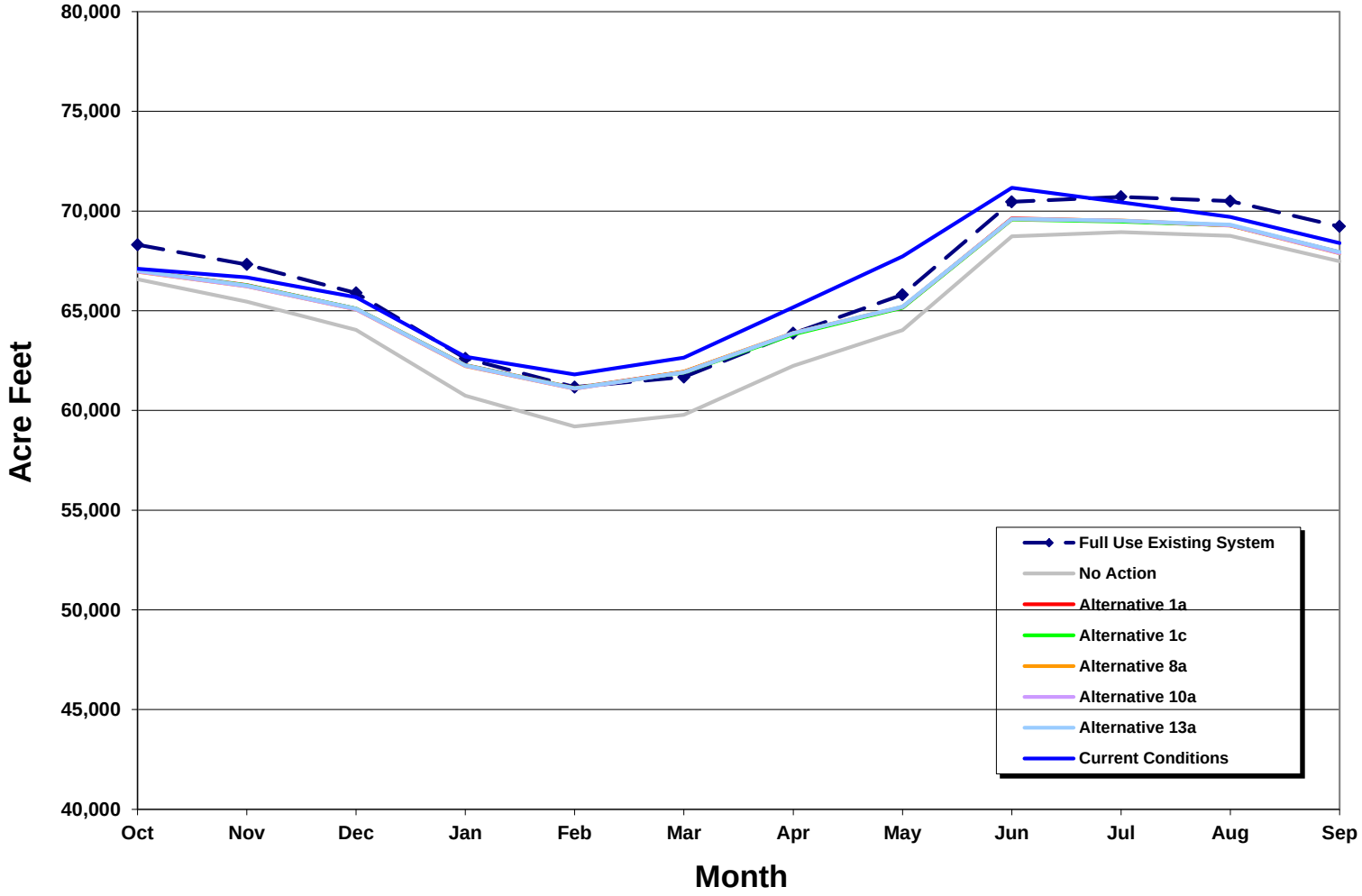


Figure H-2.38 Cheesman Reservoir End-of-Month Content at Node #50450 – Dry Year Average

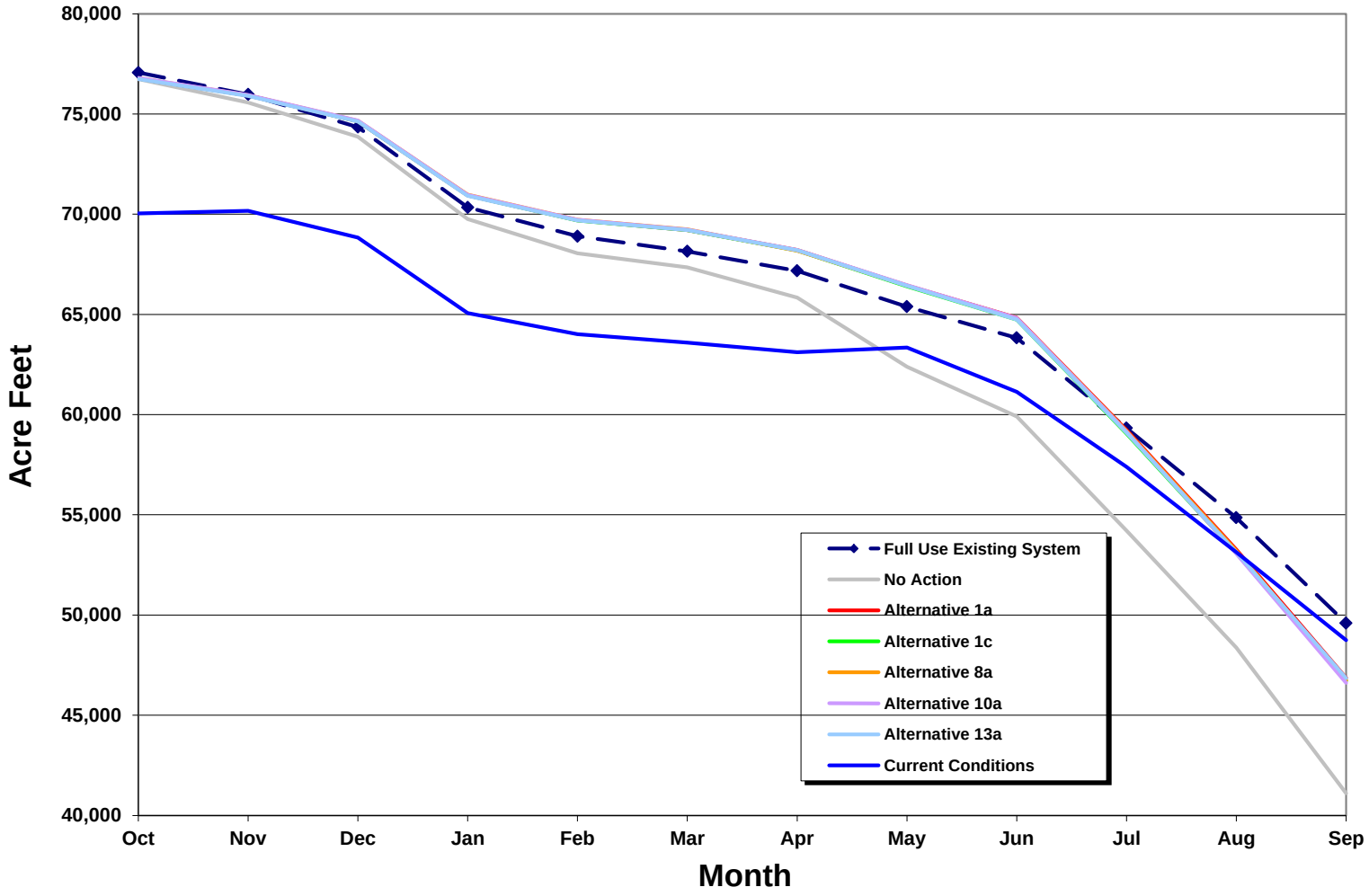


Figure H-2.39 Cheesman Reservoir End-of-Month Content at Node #50450 – Wet Year Average

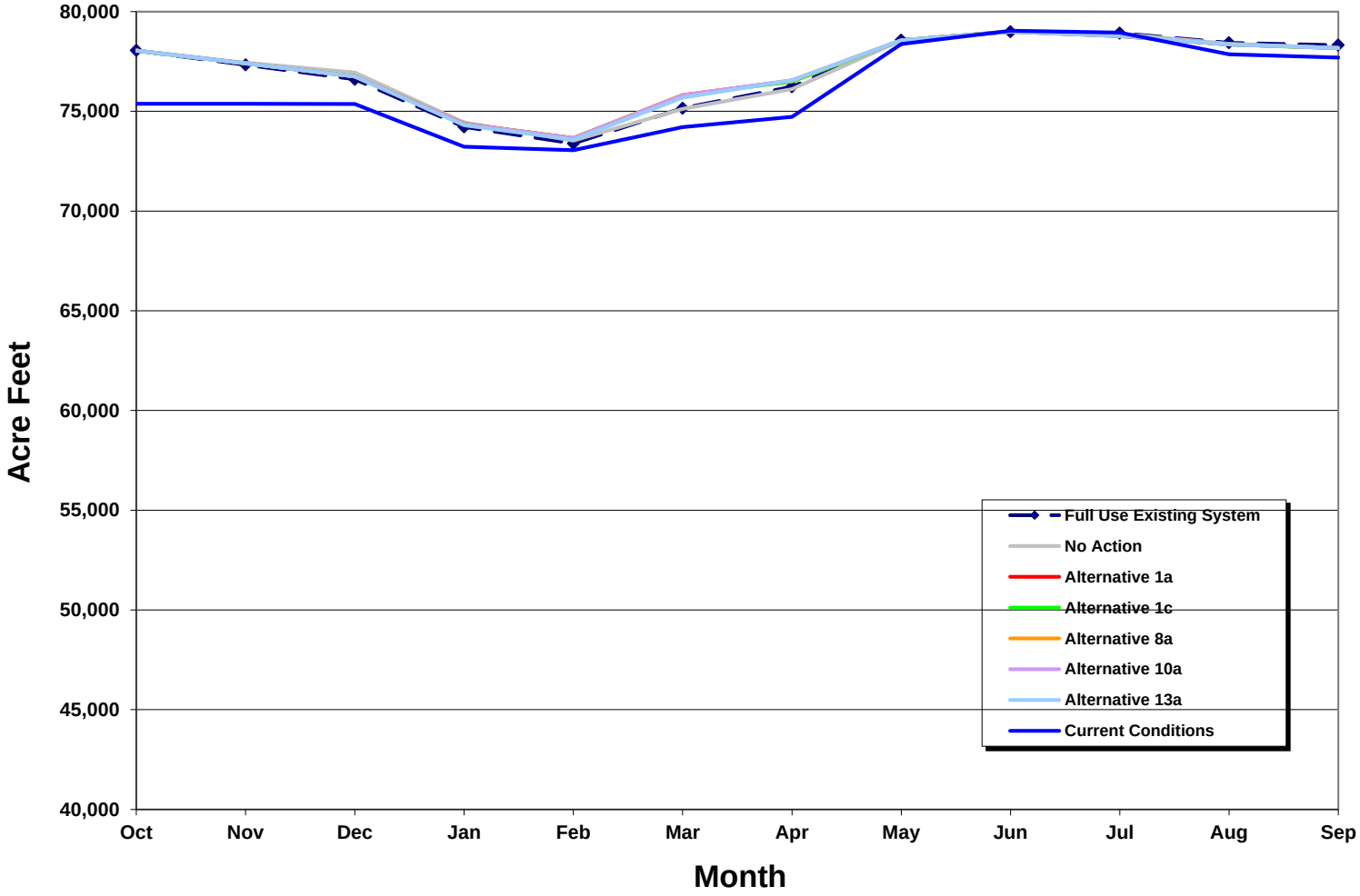


Figure H-2.40 Cheesman Reservoir Elevation\Depth End-of-Month Content at Node #50450 – Average Year

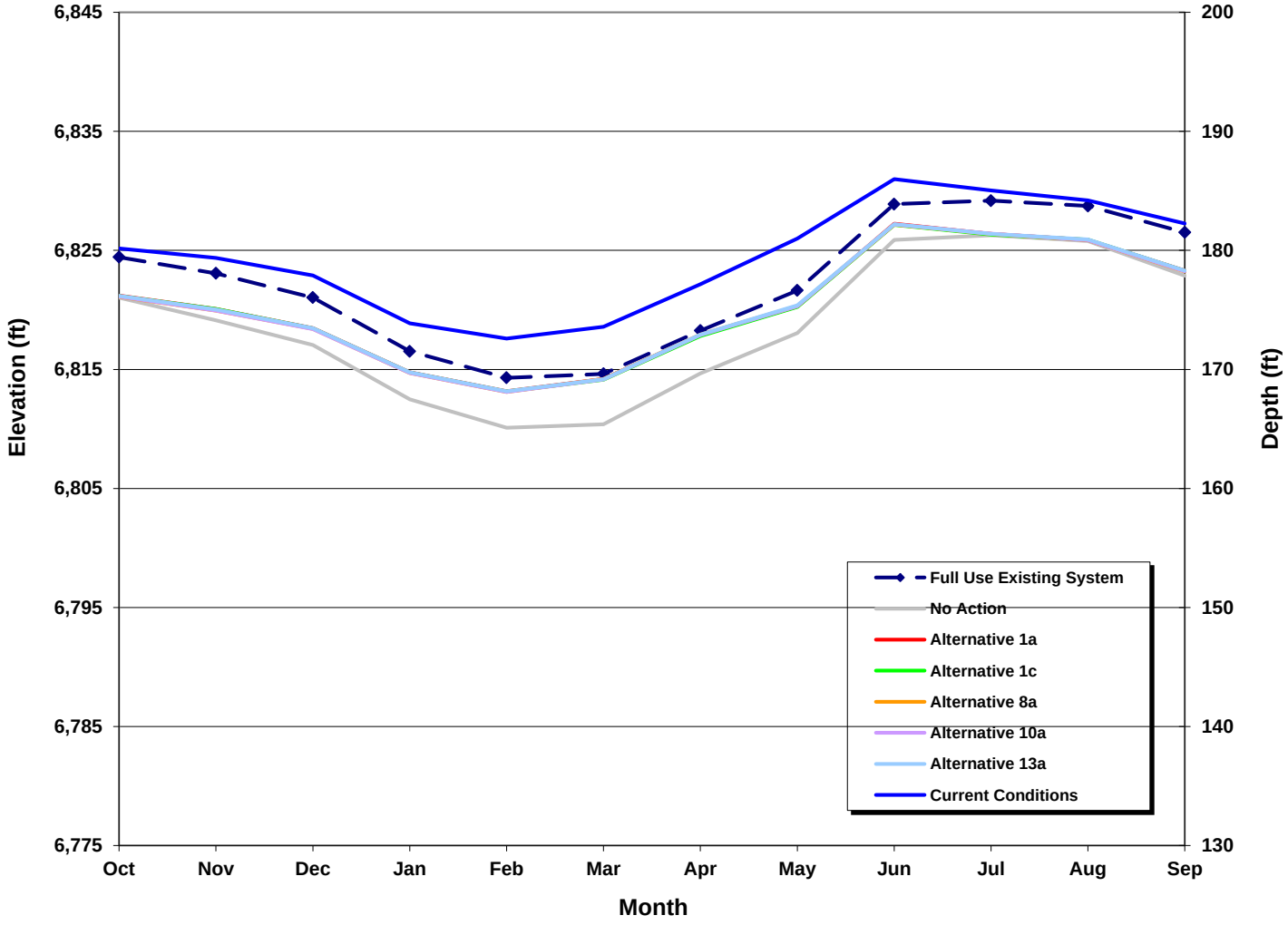


Figure H-2.41 Cheesman Reservoir Elevation\Depth End-of-Month Content at Node #50450 – Dry Year Average

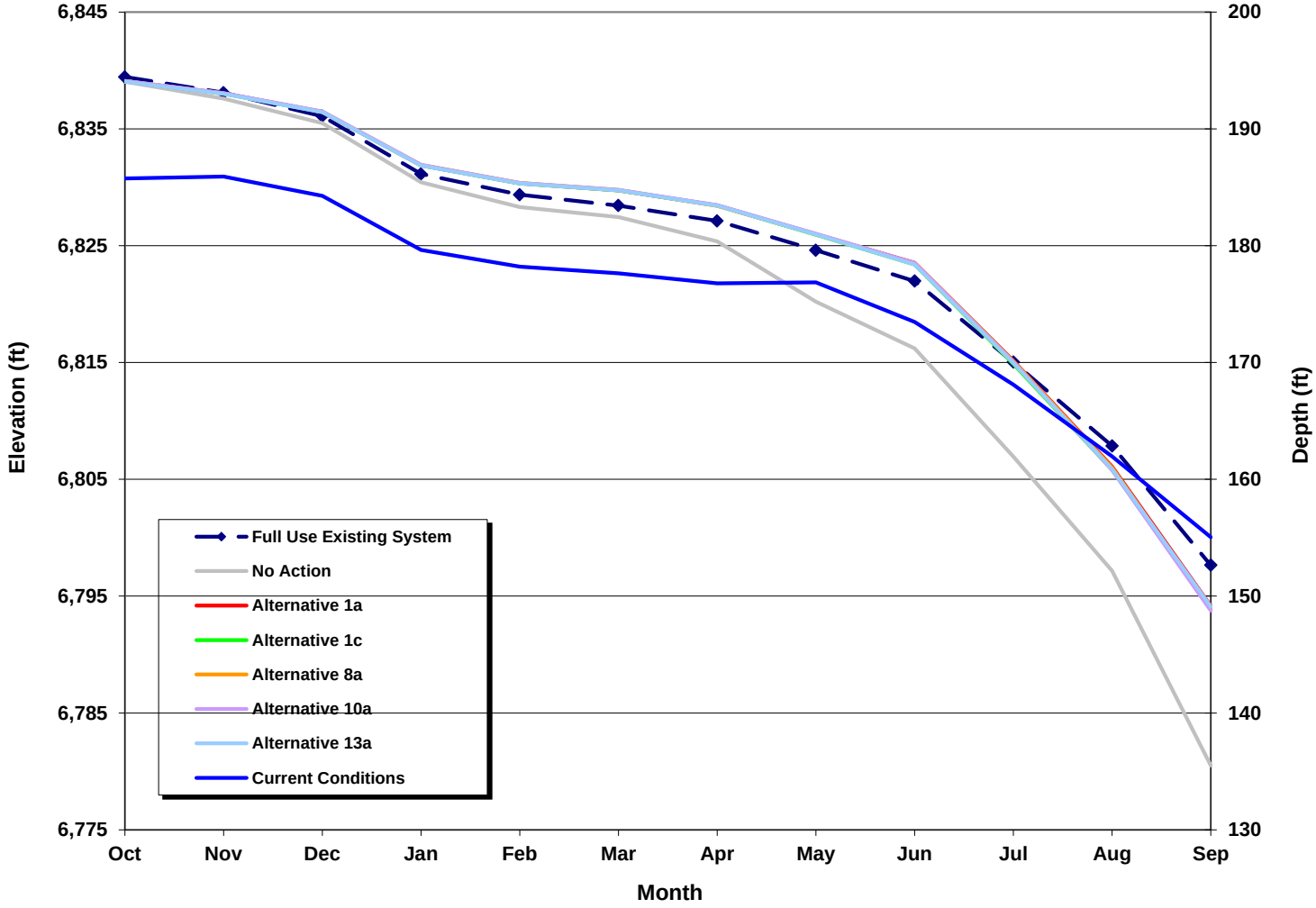


Figure H-2.42 Cheesman Reservoir Elevation\Depth End-of-Month Content at Node #50450 – Wet Year Average

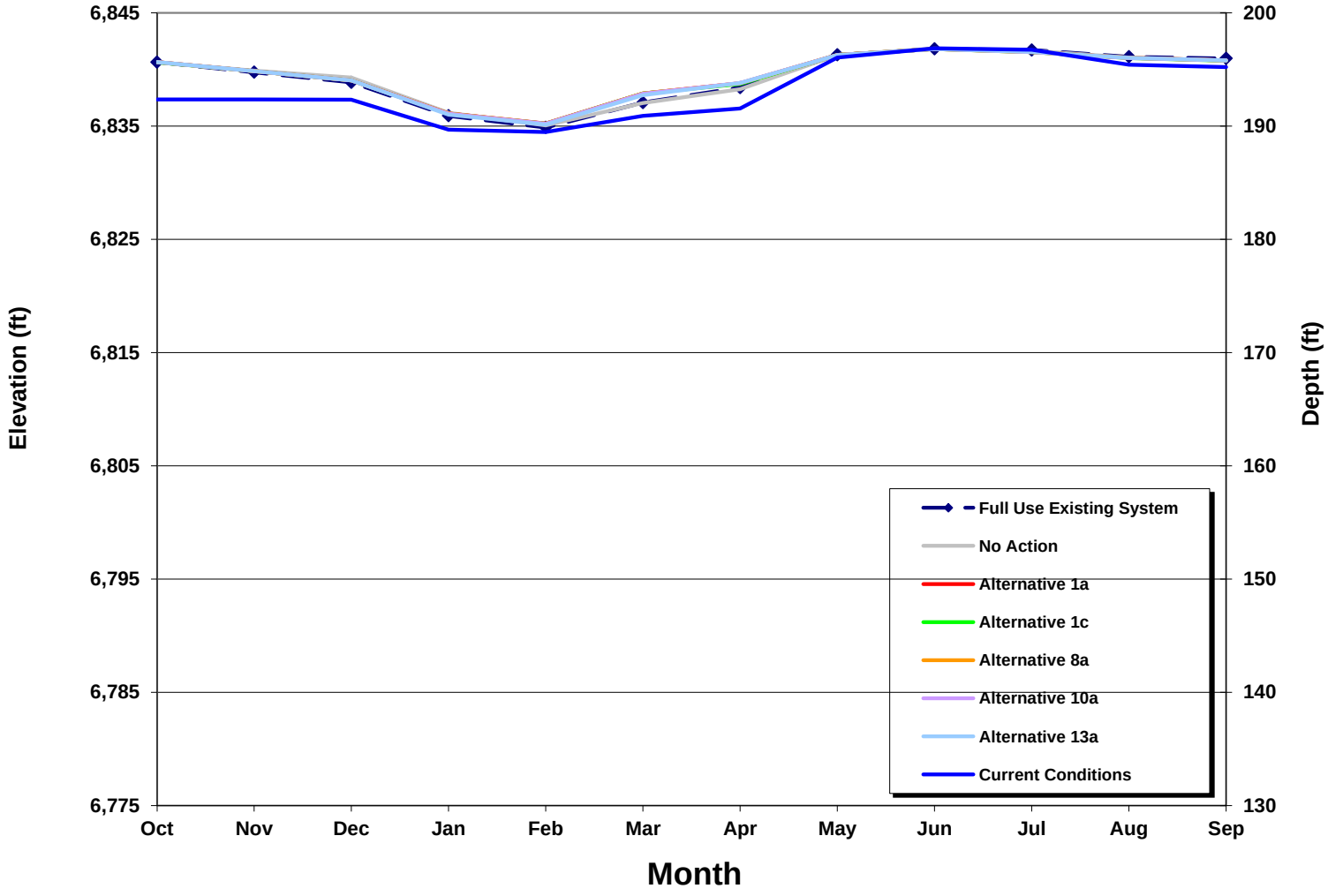


Figure H-2.43 Leyden Gulch Reservoir End-of-Month Content at Node #56050 – Average Year

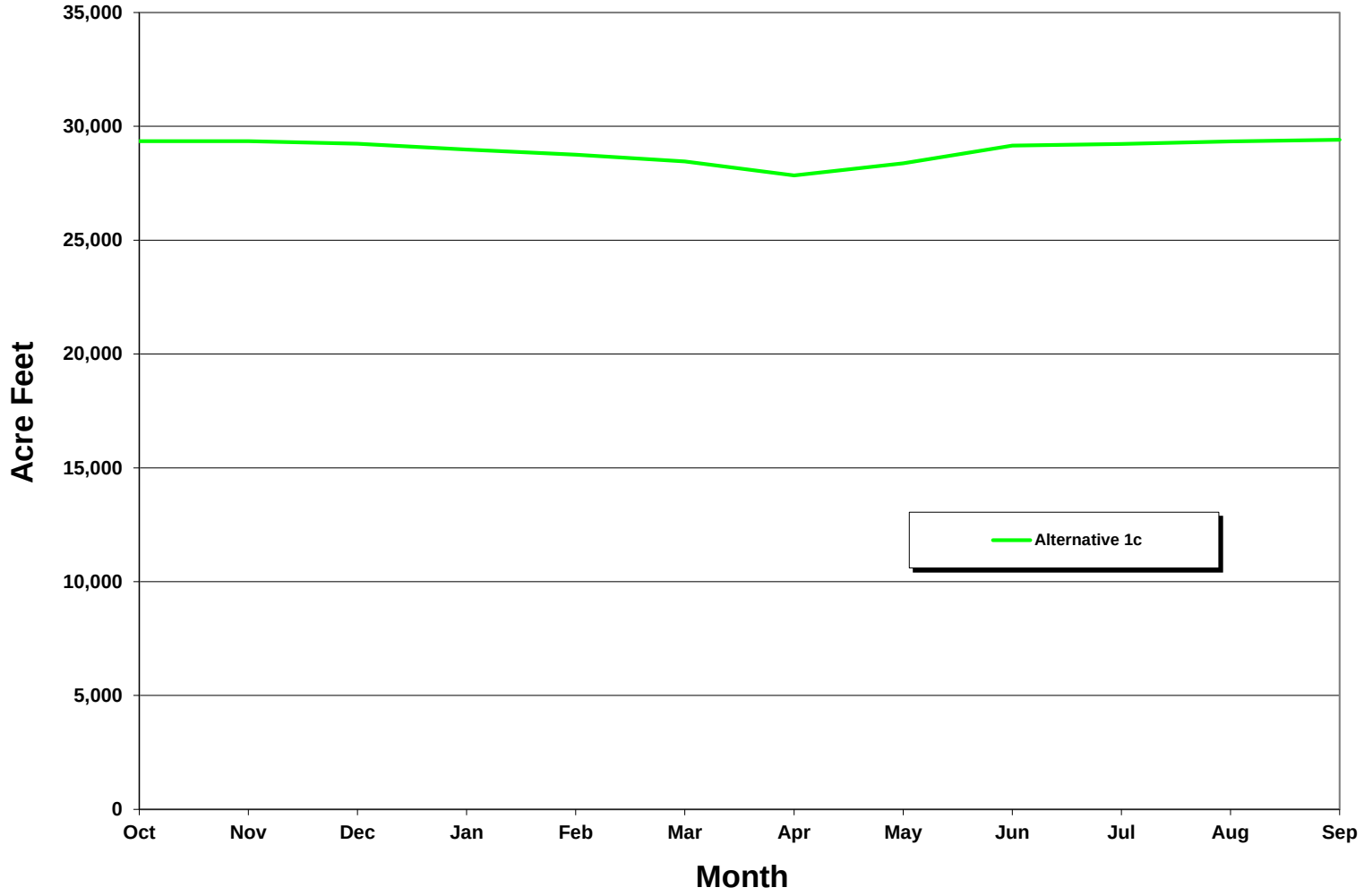


Figure H-2.44 Leyden Gulch Reservoir End-of-Month Content at Node #56050 – Dry Year Average

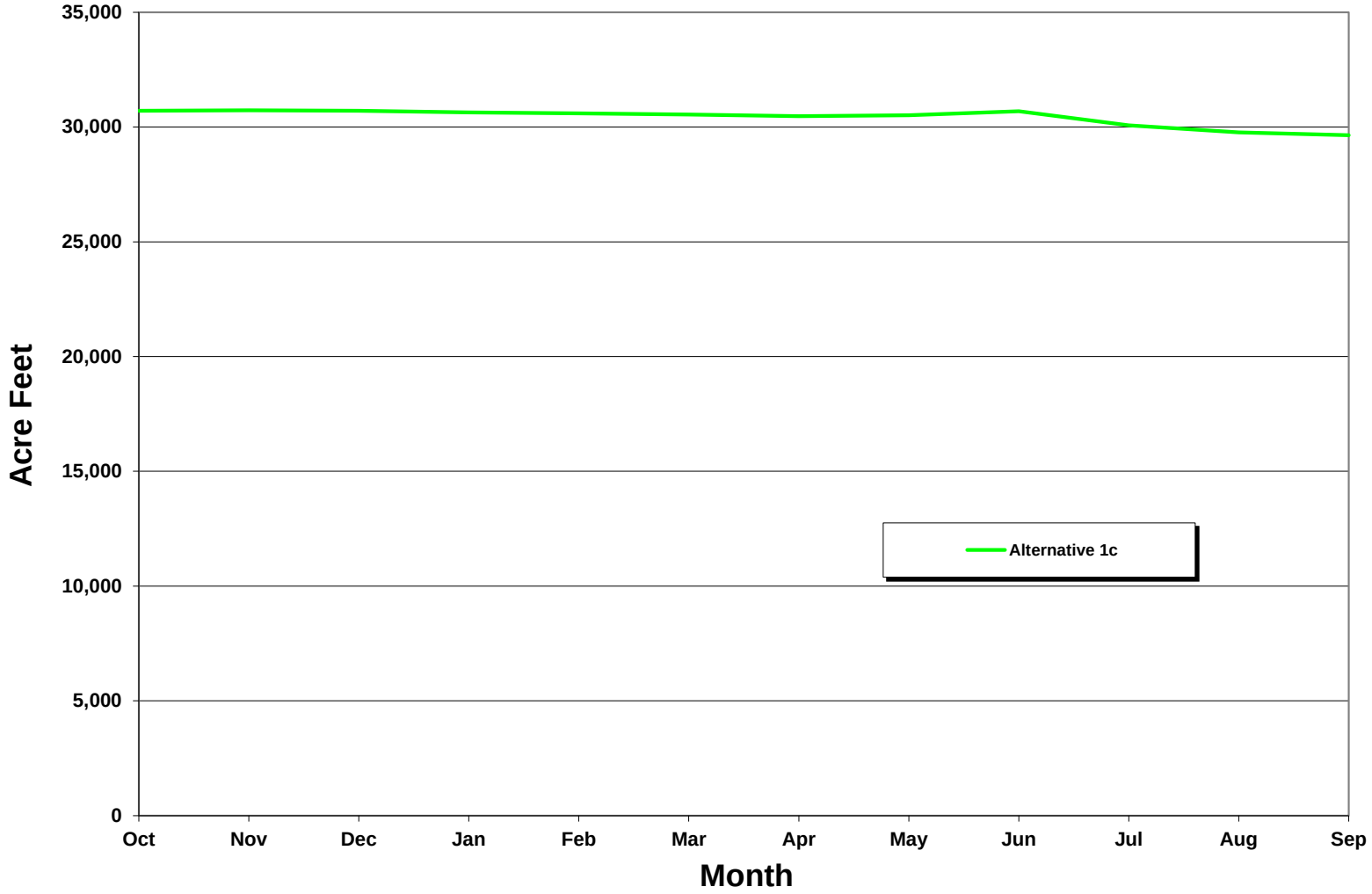


Figure H-2.45 Leyden Gulch Reservoir End-of-Month Content at Node #56050 – Wet Year Average

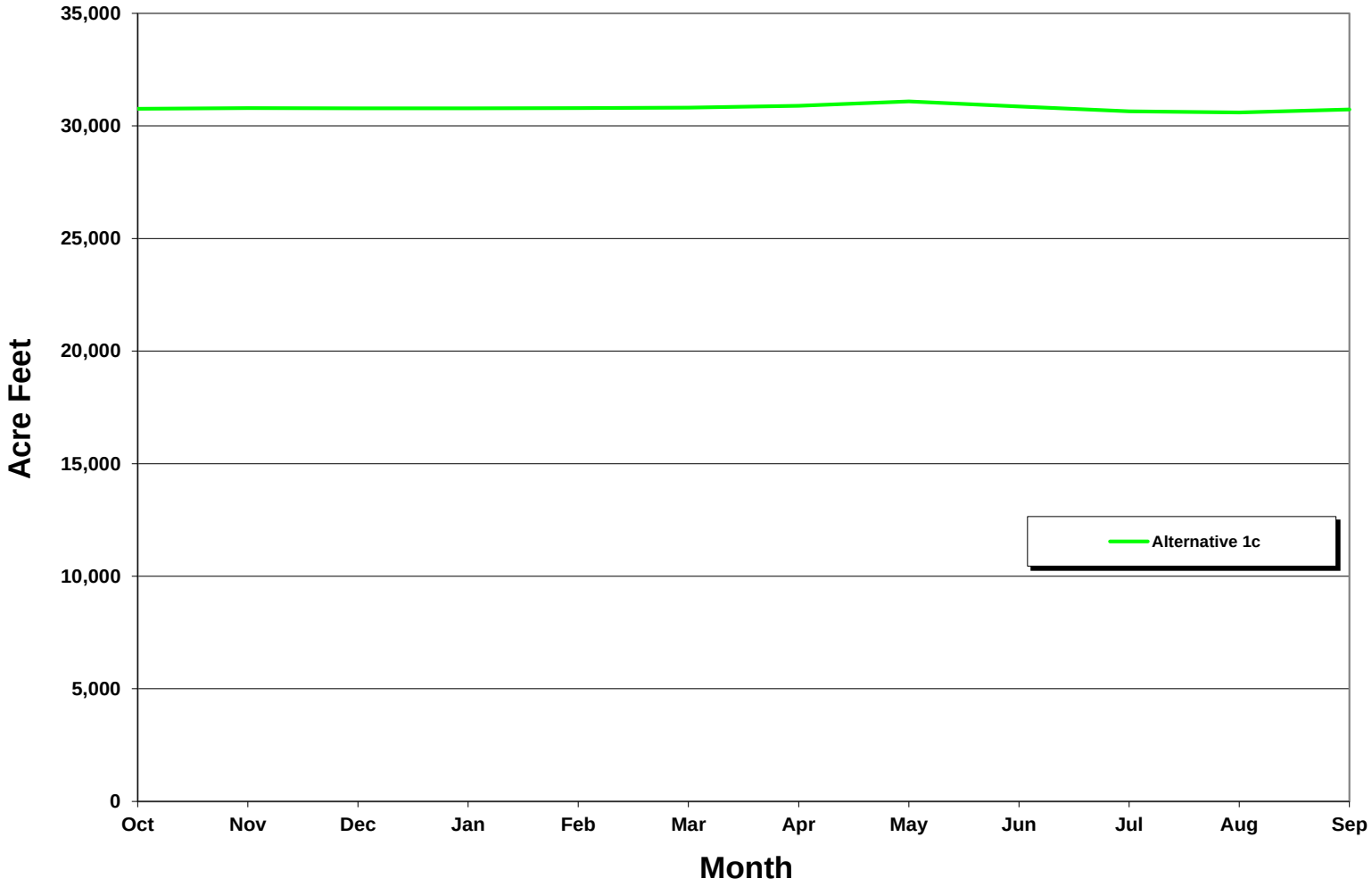


Figure H-2.46 Leyden Gulch Reservoir Elevation\Depth End-of-Month Content at Node #56050 – Average Year

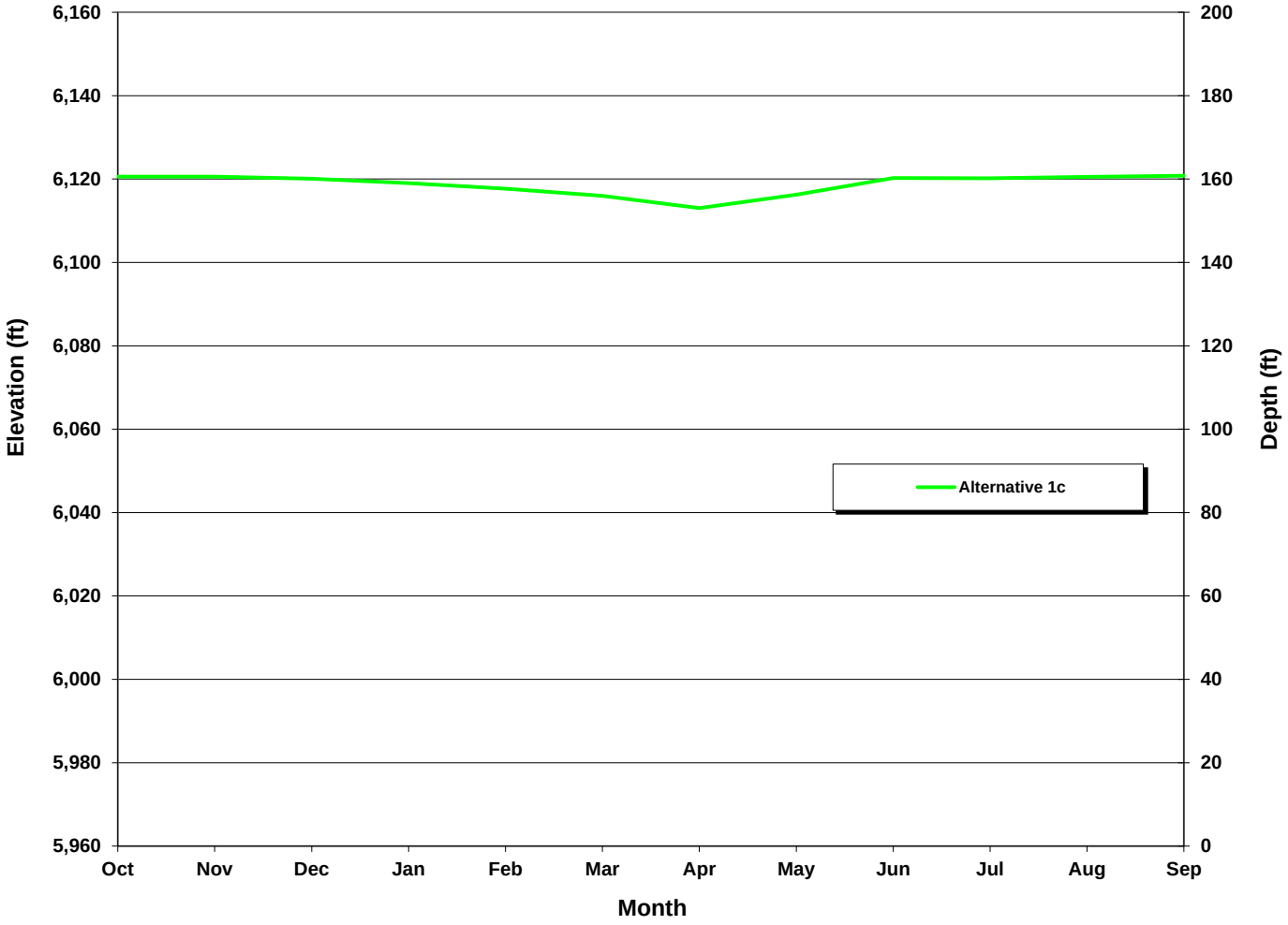


Figure H-2.47 Leyden Gulch Reservoir Elevation\Depth End-of-Month Content at Node #56050 – Dry Year Average

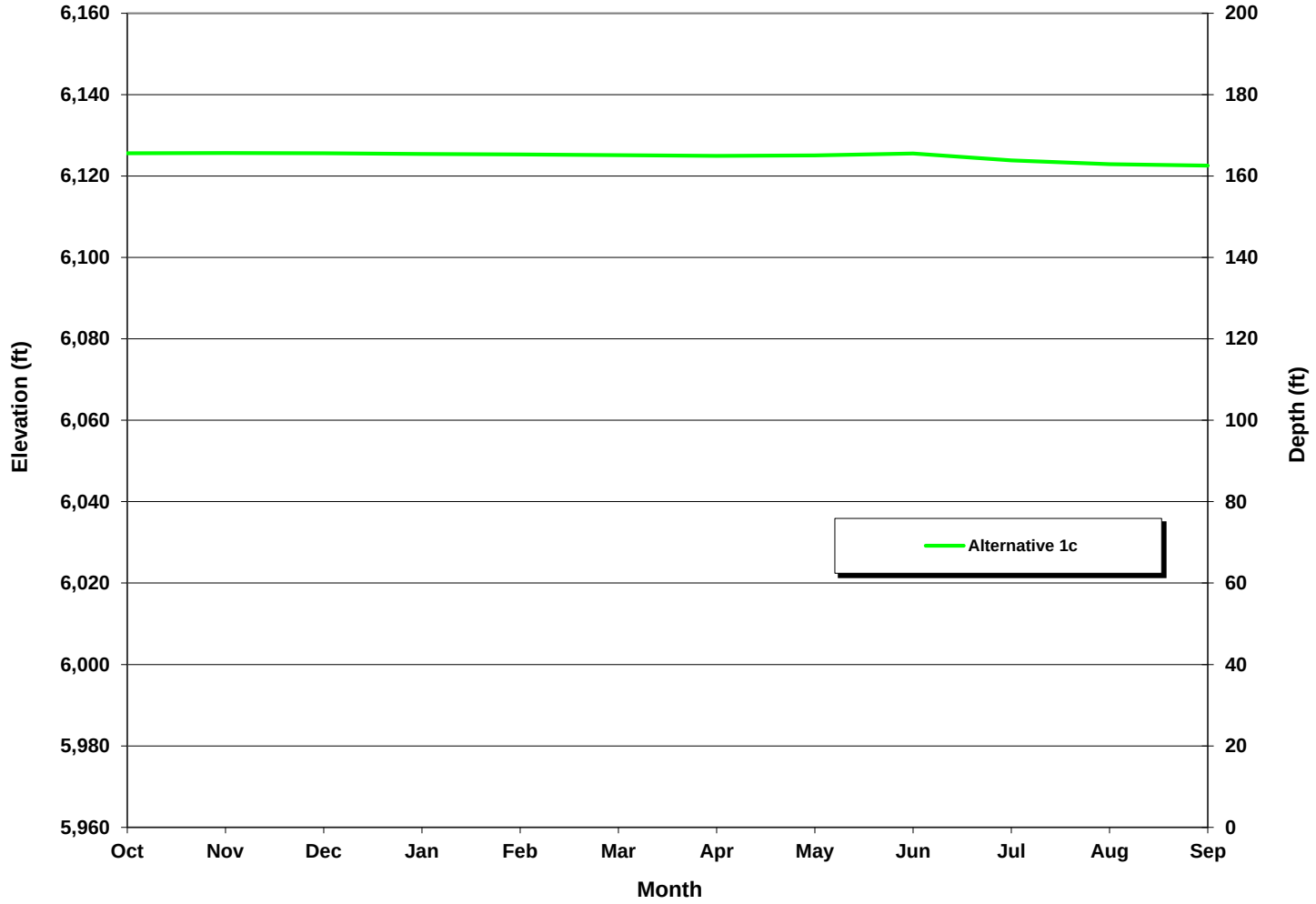


Figure H-2.48 Leyden Gulch Reservoir Elevation\Depth End-of-Month Content at Node #56050 –- Wet Year Average

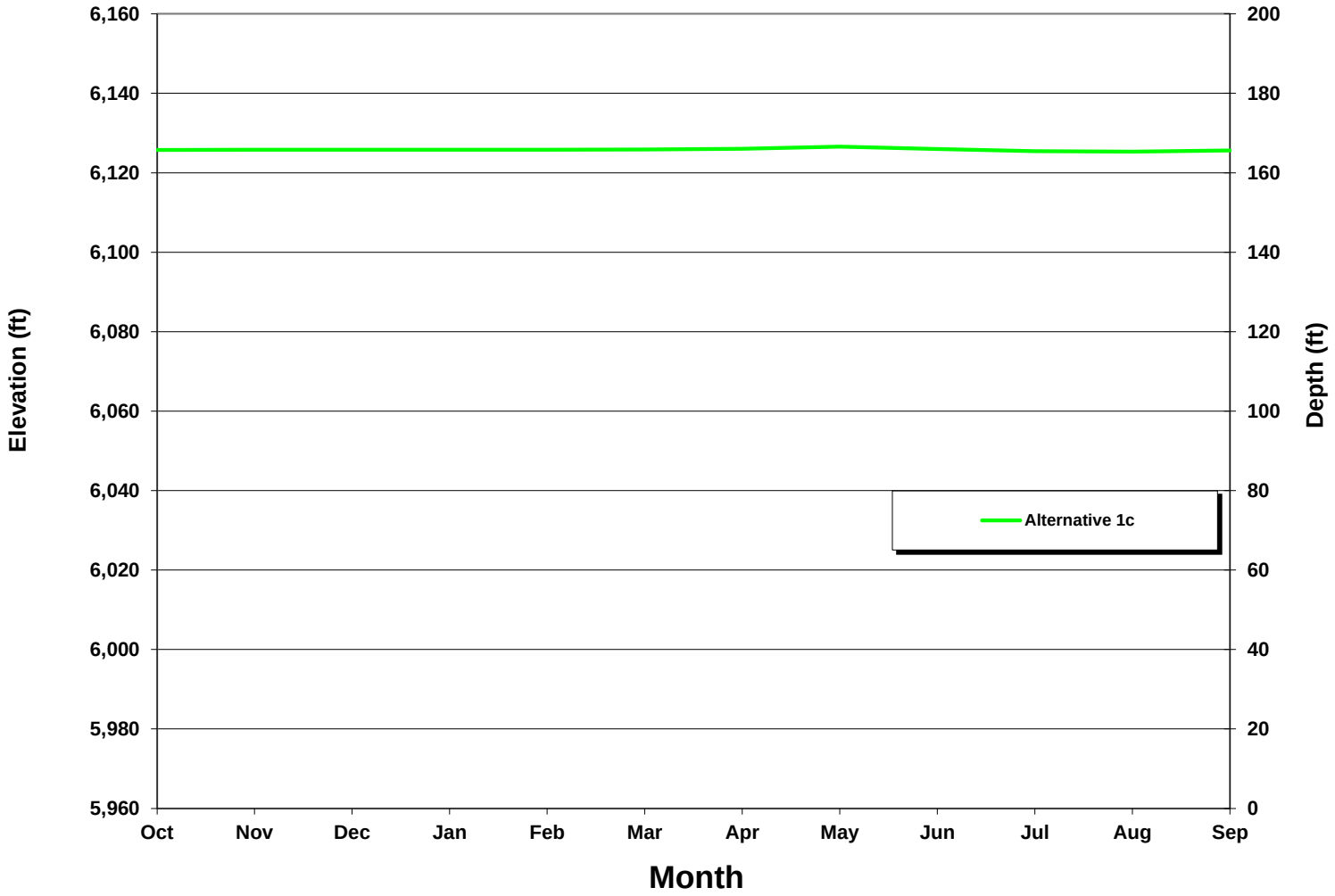


Figure H-2.49 Gravel Pit Storage End-of-Month Content at Node #58435 – Average Year*

*Storage for Alternative 10a represents ASR storage.

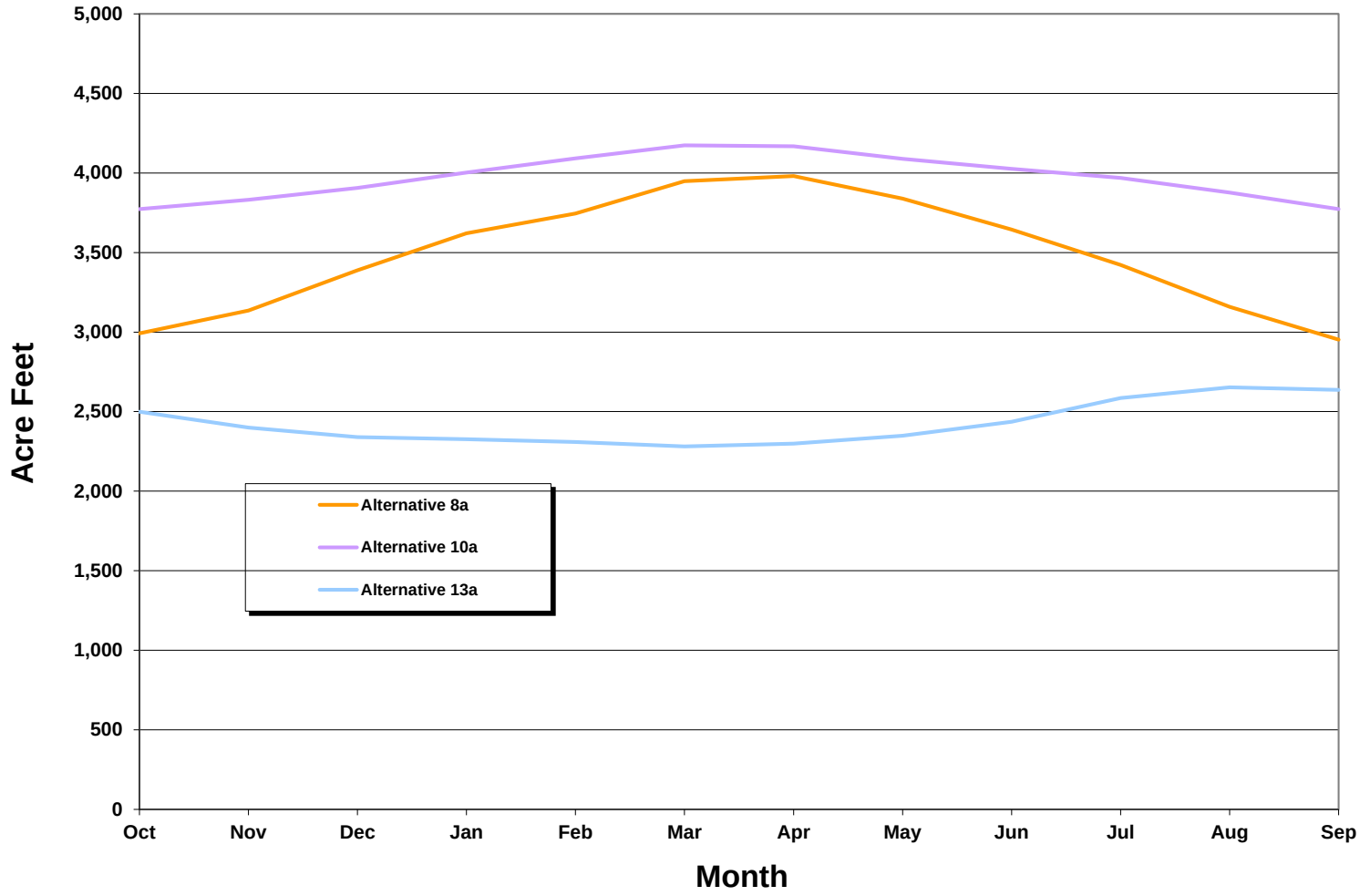


Figure H-2.50 Gravel Pit Storage End-of-Month Content at Node #58435 – Dry Year Average*

*Storage for Alternative 10a represents ASR storage.

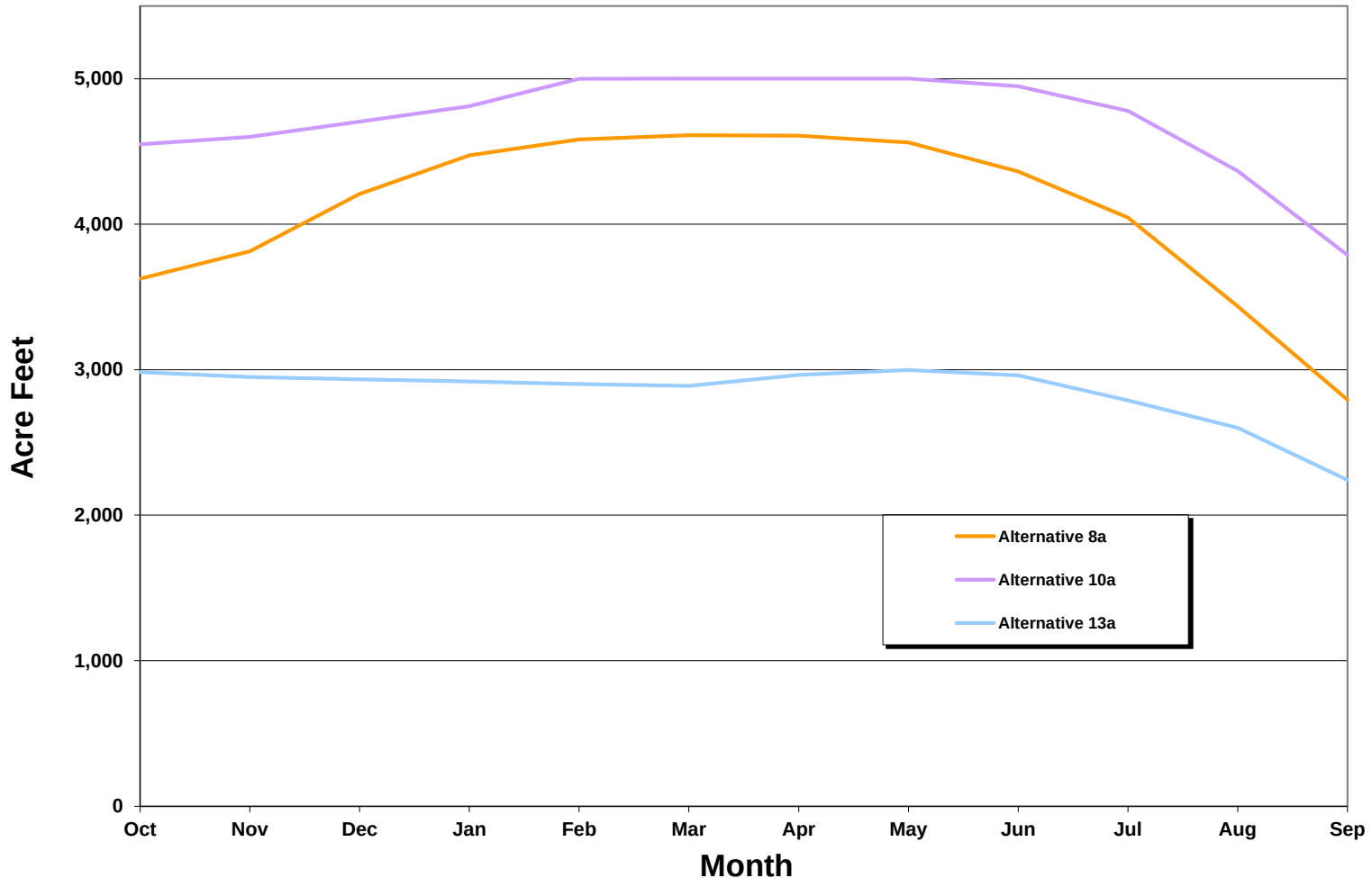


Figure H-2.51 Gravel Pit Storage End-of-Month Content at Node #58435 – Wet Year Average*

*Storage for Alternative 10a represents ASR storage.

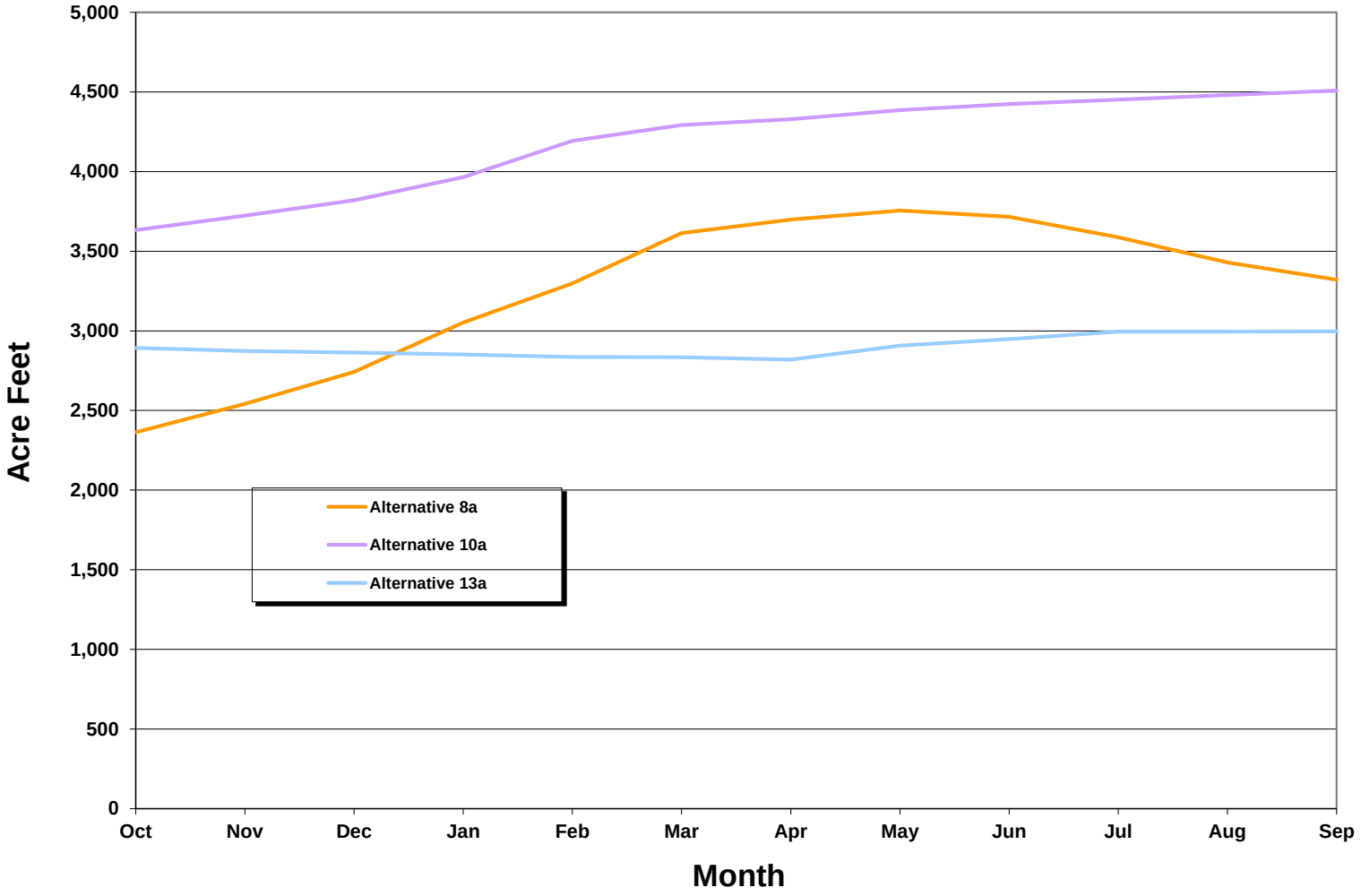


Figure H-2.52 Gravel Pit Storage Elevation\Depth End-of-Month Content at Node #58435 – Average Year*

*Elevation\Depth for ASR storage in Alternative 10a is not applicable.

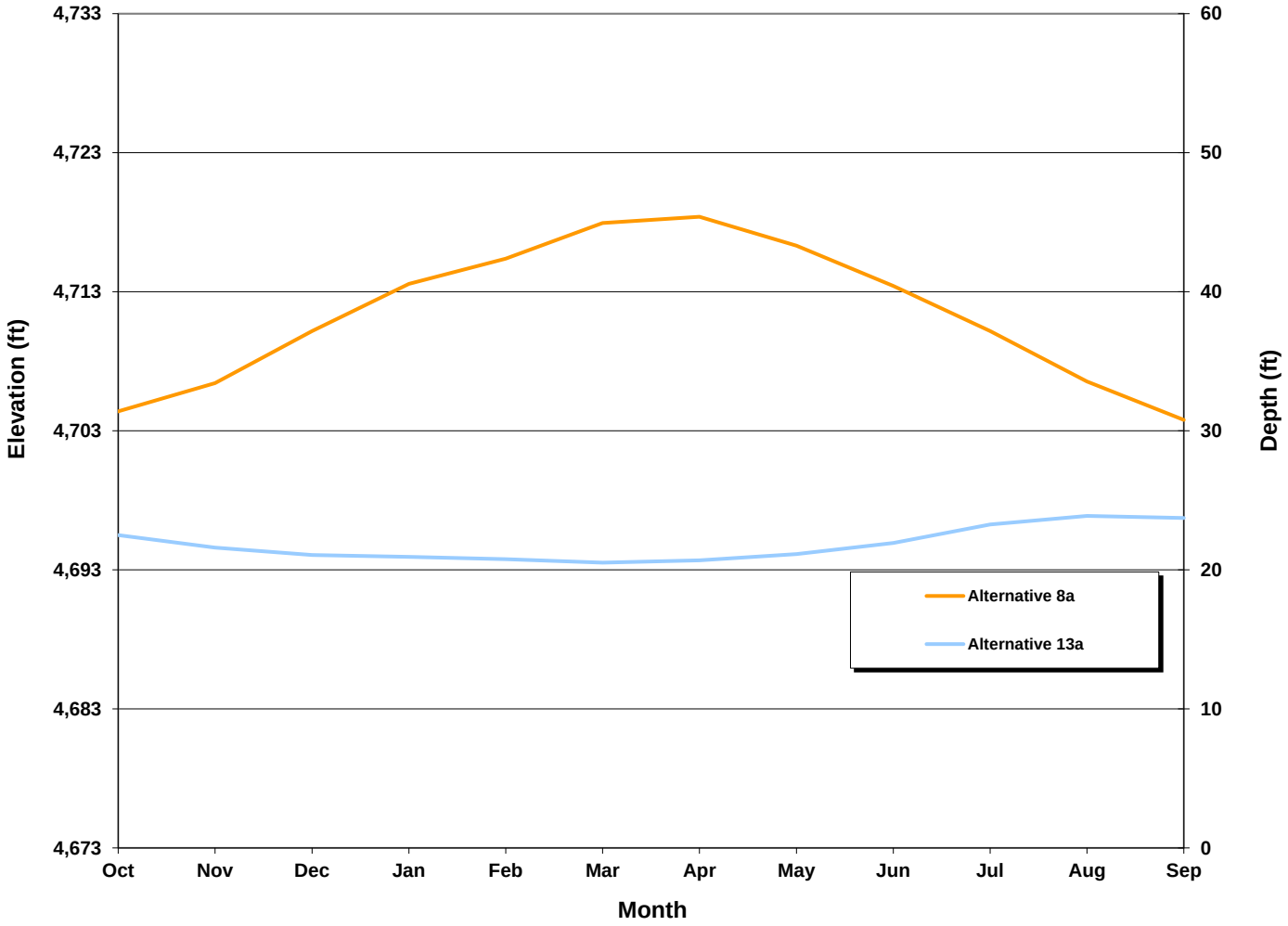


Figure H-2.53 Gravel Pit Storage Elevation\Depth End-of-Month Content at Node #58435 – Dry Year Average*

*Elevation\Depth for ASR storage in Alternative 10a is not applicable.

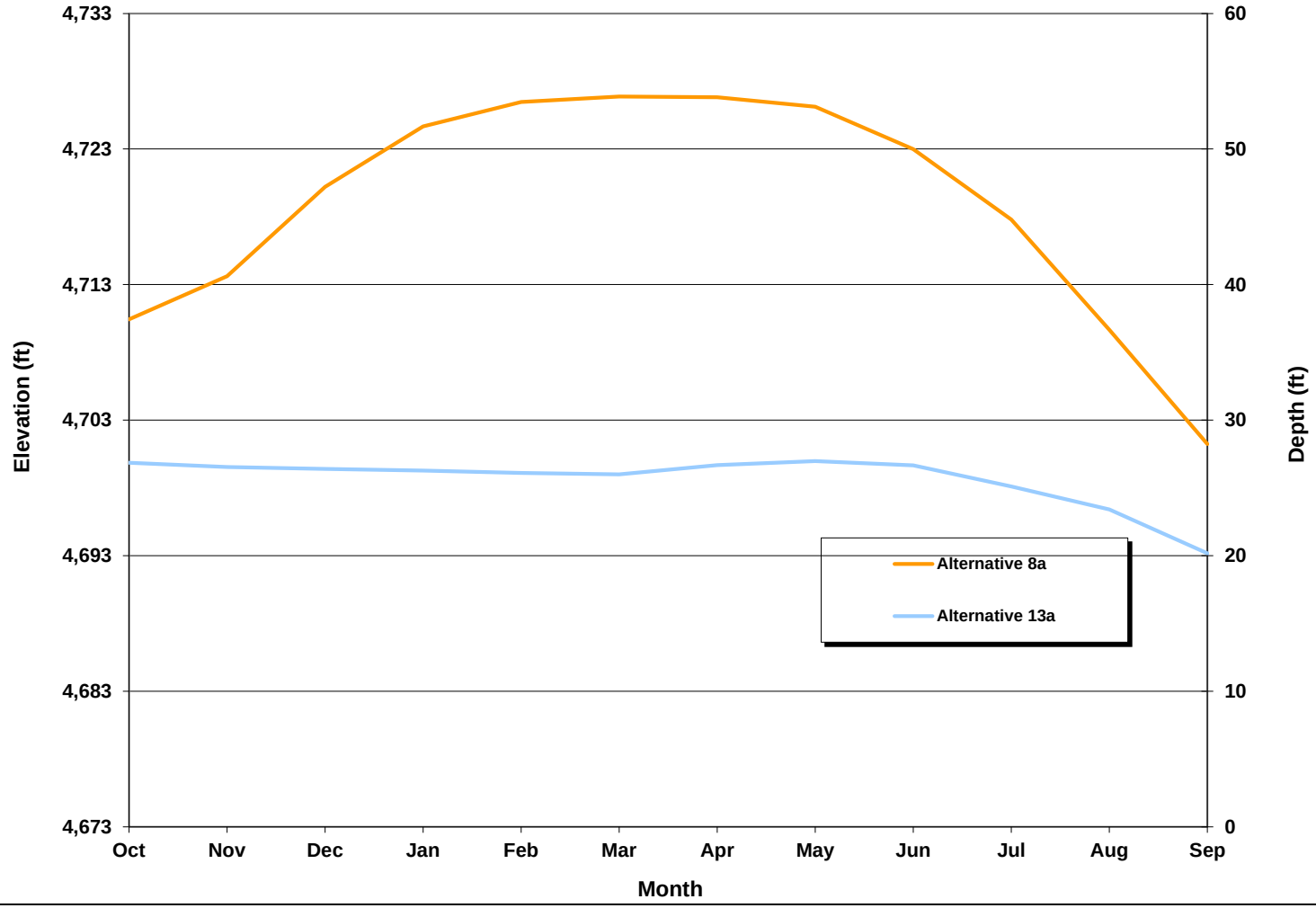
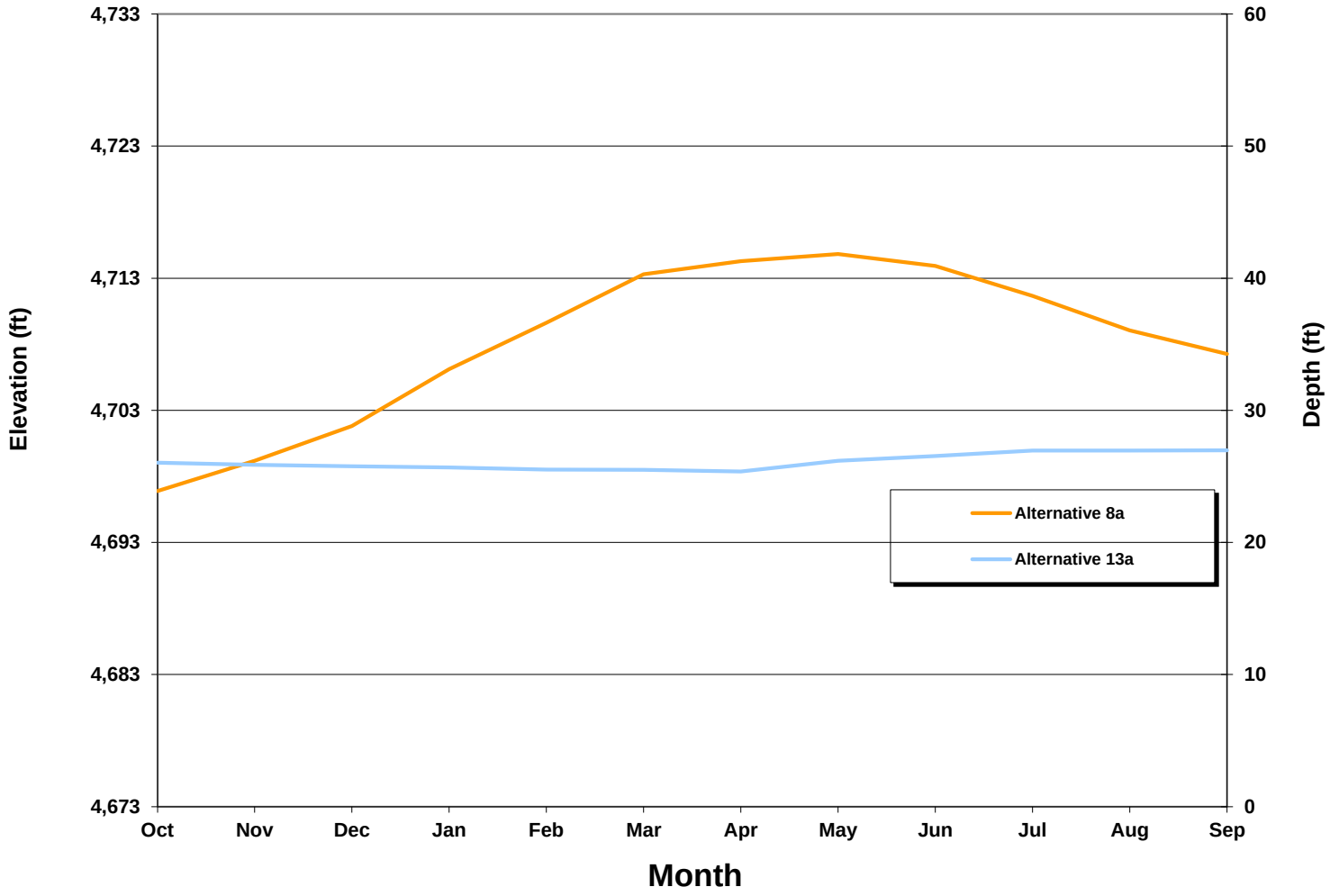


Figure H-2.54 Gravel Pit Storage Elevation\Depth End-of-Month Content at Node #58435 – Wet Year Average*

*Elevation\Depth for ASR storage in Alternative 10a is not applicable.



Appendix H-3
PACSM Output – Changes in Streamflows, Diversions, and Reservoir Outflows

- Table H-3.1 Moffat Tunnel Diversions (cfs)
- Table H-3.2 Below Denver Water's Diversion from Fraser River (cfs)
- Table H-3.3 Below Denver Water's Diversion from Jim Creek (cfs)
- Table H-3.4 Below Denver Water's Diversions from Cub and Buck Creeks (cfs)
- Table H-3.5 Below Denver Water's Diversion from Cooper Creek (cfs)
- Table H-3.6 Fraser River near Winter Park Gage (cfs)
- Table H-3.7 Vasquez Creek below the Gumlick Tunnel (cfs)
- Table H-3.8 Below Denver Water's Diversion from Vasquez Creek (cfs)
- Table H-3.9 Below Denver Water's Diversion from Little Vasquez Creek (cfs)
- Table H-3.10 Vasquez Creek Gage (cfs)
- Table H-3.11 Fraser River below Vasquez Creek (cfs)
- Table H-3.12 Below Denver Water's Diversions from Elk Creek and Tributaries (cfs)
- Table H-3.13 Below Denver Water's Diversion from St. Louis Creek (cfs)
- Table H-3.14 Below Denver Water's Diversions from St. Louis Creek Tributaries (cfs)
- Table H-3.15 St. Louis Creek near Fraser Gage (cfs)
- Table H-3.16 Below Denver Water's Diversion from King Creek (cfs)
- Table H-3.17 Fraser River below St. Louis Creek (cfs)
- Table H-3.18 Below Denver Water's Englewood Ranch Gravity System Diversions (cfs)
- Table H-3.19 Below Denver Water's Diversions from North Fork Ranch Creek and Dribble Creek (cfs)
- Table H-3.20 Below Denver Water's Diversion from Main Ranch Creek (cfs)
- Table H-3.21 Below Denver Water's Diversions from Middle and South Fork of Ranch Creek (cfs)
- Table H-3.22 Fraser River below Crooked Creek (cfs)
- Table H-3.23 Fraser River at Granby Gage (cfs)
- Table H-3.24 Gumlick Tunnel Diversions (cfs)
- Table H-3.25 Below Denver Water's Diversion from Steelman Creek (cfs)
- Table H-3.26 Below Denver Water's Diversion from Bobtail Creek (cfs)
- Table H-3.27 Below Denver Water's Diversion from Jones Creek (cfs)

- Table H-3.28 Below Denver Water's Diversion from McQueary Creek (cfs)
- Table H-3.29 Williams Fork River below Steelman Creek Gage (cfs)
- Table H-3.30 Williams Fork Reservoir Outflow (cfs)
- Table H-3.31 Colorado River below Windy Gap Diversion (cfs)
- Table H-3.32 Colorado River below Confluence with Williams Fork River (cfs)
- Table H-3.33 Colorado River near Kremmling Gage (cfs)
- Table H-3.34 Wolford Mountain Reservoir Outflow (cfs)
- Table H-3.35 Roberts Tunnel Diversions (cfs)
- Table H-3.36 Dillon Reservoir Outflow (cfs)
- Table H-3.37 Green Mountain Reservoir Outflow (cfs)
- Table H-3.38 South Boulder Creek at Pinecliffe Gage (cfs)
- Table H-3.39 Gross Reservoir Outflow (cfs)
- Table H-3.40 South Boulder Creek near Eldorado Springs Gage (cfs)
- Table H-3.41 North Fork South Platte River below Geneva Creek Gage (cfs)
- Table H-3.42 Antero Reservoir Outflow (cfs)
- Table H-3.43 Eleven Mile Canyon Reservoir Outflow (cfs)
- Table H-3.44 Cheesman Reservoir Outflow (cfs)
- Table H-3.45 South Platte River at Waterton Gage (cfs)
- Table H-3.46 South Platte River below Chatfield Reservoir (cfs)
- Table H-3.47 South Platte River at Denver Gage (cfs)
- Table H-3.48 South Platte River at Henderson Gage (cfs)

Table H-3.1. Moffat Tunnel Diversions (cfs)

Diversion Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		44.9	24.4	17.0	15.0	13.4	13.4	29.6	199.0	345.4	205.2	114.7	76.4	91.5
No Act	Flow	45.1	24.4	17.0	14.7	13.4	13.4	29.6	206.5	368.0	210.9	116.6	76.8	94.7
Alt 1a	Flow	45.0	24.9	17.4	15.6	14.1	13.7	29.6	224.9	451.3	235.5	120.4	76.8	105.8
Alt 1c	Flow	45.0	24.9	17.4	15.6	14.1	13.7	29.6	224.9	448.8	235.3	120.4	76.8	105.5
Alt 8a	Flow	45.7	24.9	17.4	15.6	14.1	13.7	29.6	224.9	445.6	226.5	115.7	76.8	104.2
Alt 10a	Flow	45.7	24.9	17.4	15.6	14.1	13.7	29.6	224.9	445.6	226.4	115.8	76.8	104.2
Alt 13a	Flow	45.4	24.9	17.4	15.6	14.1	13.7	29.6	224.9	449.5	231.1	118.5	76.7	105.1
Diversion change from Full Use Existing System														
No Act	Div. Change	0.3	0.0	0.0	-0.3	0.0	0.0	0.0	7.6	22.7	5.7	2.0	0.4	3.2
Alt 1a	Div. Change	0.1	0.5	0.4	0.6	0.7	0.3	0.0	26.0	105.9	30.3	5.7	0.3	14.2
Alt 1c	Div. Change	0.1	0.5	0.4	0.6	0.7	0.3	0.0	26.0	103.4	30.1	5.7	0.3	14.0
Alt 8a	Div. Change	0.8	0.5	0.4	0.6	0.7	0.3	0.0	26.0	100.3	21.3	1.0	0.4	12.7
Alt 10a	Div. Change	0.8	0.5	0.4	0.6	0.7	0.3	0.0	26.0	100.3	21.1	1.1	0.4	12.7
Alt 13a	Div. Change	0.5	0.5	0.4	0.6	0.7	0.3	0.0	26.0	104.1	25.9	3.9	0.2	13.6
Percent change in diversion from Full Use Existing System														
No Act	% Change	1%	0%	0%	-2%	0%	0%	0%	4%	7%	3%	2%	0%	3%
Alt 1a	% Change	0%	2%	2%	4%	5%	2%	0%	13%	31%	15%	5%	0%	16%
Alt 1c	% Change	0%	2%	2%	4%	5%	2%	0%	13%	30%	15%	5%	0%	15%
Alt 8a	% Change	2%	2%	2%	4%	5%	2%	0%	13%	29%	10%	1%	1%	14%
Alt 10a	% Change	2%	2%	2%	4%	5%	2%	0%	13%	29%	10%	1%	1%	14%
Alt 13a	% Change	1%	2%	2%	4%	5%	2%	0%	13%	30%	13%	3%	0%	15%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		36.0	19.9	13.0	11.4	10.3	10.1	30.1	180.2	332.3	114.4	91.4	55.6	75.4
No Act	Flow	36.0	19.9	13.0	11.4	10.3	10.1	30.1	180.2	332.3	114.4	91.4	55.6	75.4
Alt 1a	Flow	36.0	19.9	13.0	11.4	10.3	10.1	30.1	180.2	332.3	114.4	91.4	55.6	75.4
Alt 1c	Flow	36.0	19.9	13.0	11.4	10.3	10.1	30.1	180.2	332.3	114.4	91.4	55.6	75.4
Alt 8a	Flow	36.0	19.9	13.0	11.4	10.3	10.1	30.1	180.2	332.3	114.4	91.4	55.6	75.4
Alt 10a	Flow	36.0	19.9	13.0	11.4	10.3	10.1	30.1	180.2	332.3	114.4	91.4	55.6	75.4
Alt 13a	Flow	36.0	19.9	13.0	11.4	10.3	10.1	30.1	180.2	332.3	114.4	91.4	55.6	75.4
Diversion change from Full Use Existing System														
No Act	Div. Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Div. Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Div. Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Div. Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Div. Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Div. Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent change in diversion from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		69.4	31.8	21.4	19.1	17.9	17.0	36.4	194.5	171.1	214.8	135.3	103.2	86.0
No Act	Flow	68.8	31.6	21.4	19.1	17.9	17.0	36.4	201.0	190.5	225.2	147.9	106.0	90.2
Alt 1a	Flow	69.1	31.6	21.4	19.1	17.9	17.0	36.4	247.3	296.8	223.0	142.6	106.1	102.4
Alt 1c	Flow	69.1	31.6	21.4	19.1	17.9	17.0	36.4	247.0	290.4	220.8	140.4	106.3	101.4
Alt 8a	Flow	68.9	31.6	21.4	19.1	17.9	17.0	36.4	247.0	292.0	222.9	142.4	106.1	101.9
Alt 10a	Flow	68.8	31.6	21.4	19.1	17.9	17.0	36.4	247.2	292.8	222.7	142.5	106.1	102.0
Alt 13a	Flow	69.1	31.6	21.4	19.1	17.9	17.0	36.4	247.2	293.4	222.5	142.6	106.1	102.0
Diversion change from Full Use Existing System														
No Act	Div. Change	-0.6	-0.2	0.0	0.0	0.0	0.0	0.0	6.5	19.4	10.4	12.7	2.9	4.3
Alt 1a	Div. Change	-0.3	-0.2	0.0	0.0	0.0	0.0	0.0	52.8	125.8	8.2	7.3	3.0	16.4
Alt 1c	Div. Change	-0.2	-0.2	0.0	0.0	0.0	0.0	0.0	52.5	119.3	6.0	5.2	3.2	15.5
Alt 8a	Div. Change	-0.4	-0.2	0.0	0.0	0.0	0.0	0.0	52.6	120.9	8.2	7.2	3.0	15.9
Alt 10a	Div. Change	-0.5	-0.2	0.0	0.0	0.0	0.0	0.0	52.7	121.8	7.9	7.2	3.0	16.0
Alt 13a	Div. Change	-0.3	-0.2	0.0	0.0	0.0	0.0	0.0	52.7	122.4	7.8	7.4	3.0	16.1
Percent change in diversion from Full Use Existing System														
No Act	% Change	-1%	-1%	0%	0%	0%	0%	0%	3%	11%	5%	9%	3%	5%
Alt 1a	% Change	0%	-1%	0%	0%	0%	0%	0%	27%	74%	4%	5%	3%	19%
Alt 1c	% Change	0%	-1%	0%	0%	0%	0%	0%	27%	70%	3%	4%	3%	18%
Alt 8a	% Change	-1%	-1%	0%	0%	0%	0%	0%	27%	71%	4%	5%	3%	19%
Alt 10a	% Change	-1%	-1%	0%	0%	0%	0%	0%	27%	71%	4%	5%	3%	19%
Alt 13a	% Change	0%	-1%	0%	0%	0%	0%	0%	27%	72%	4%	5%	3%	19%

Notes:

The monthly percent flow change from October through April in the 45-Year Average table reflects additional diversions in two winters during the 45-year study period. In the remaining 43 years there would be no flow change from October through April.

Table H-3.2. Below Denver Water's Diversion from Fraser River (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		1.3	1.8	2.2	2.3	2.3	2.2	1.8	6.1	38.0	13.9	5.3	3.4	6.7
No Act	Flow	1.3	1.8	2.2	2.4	2.3	2.2	1.8	4.7	33.5	13.7	5.4	3.4	6.2
Alt 1a	Flow	1.3	1.8	2.1	2.3	2.3	2.2	1.8	2.0	20.7	11.6	5.4	3.4	4.7
Alt 1c	Flow	1.3	1.8	2.1	2.3	2.3	2.2	1.8	2.0	21.0	11.5	5.4	3.4	4.8
Alt 8a	Flow	1.3	1.8	2.1	2.3	2.3	2.2	1.8	2.0	21.6	12.1	5.4	3.4	4.9
Alt 10a	Flow	1.3	1.8	2.1	2.3	2.3	2.2	1.8	2.0	21.6	12.1	5.4	3.4	4.8
Alt 13a	Flow	1.3	1.8	2.1	2.3	2.3	2.2	1.8	2.0	20.9	11.8	5.4	3.4	4.8
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.4	-4.5	-0.2	0.0	0.0	-0.5
Alt 1a	Flow Change	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	-4.2	-17.3	-2.3	0.0	0.0	-2.0
Alt 1c	Flow Change	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	-4.2	-17.0	-2.4	0.1	0.0	-2.0
Alt 8a	Flow Change	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	-4.2	-16.4	-1.8	0.0	0.0	-1.9
Alt 10a	Flow Change	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	-4.2	-16.4	-1.8	0.0	0.0	-1.9
Alt 13a	Flow Change	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	-4.2	-17.1	-2.1	0.0	0.0	-2.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	1%	0%	0%	0%	-23%	-12%	-1%	0%	0%	-7%
Alt 1a	% Change	-1%	0%	-2%	-3%	-2%	-1%	0%	-68%	-45%	-17%	0%	0%	-30%
Alt 1c	% Change	-1%	0%	-2%	-3%	-2%	-1%	0%	-68%	-45%	-17%	1%	0%	-29%
Alt 8a	% Change	-1%	0%	-2%	-3%	-2%	-1%	0%	-68%	-43%	-13%	0%	0%	-28%
Alt 10a	% Change	-1%	0%	-2%	-3%	-2%	-1%	0%	-68%	-43%	-13%	0%	0%	-28%
Alt 13a	% Change	-1%	0%	-2%	-3%	-2%	-1%	0%	-68%	-45%	-15%	0%	0%	-29%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		1.6	1.9	2.3	2.4	2.4	2.3	1.7	2.2	7.1	5.2	3.9	2.7	3.0
No Act	Flow	1.6	1.9	2.3	2.4	2.4	2.3	1.7	2.2	7.1	5.2	3.9	2.7	3.0
Alt 1a	Flow	1.6	1.9	2.3	2.4	2.4	2.3	1.7	2.2	7.1	5.2	3.9	2.7	3.0
Alt 1c	Flow	1.6	1.9	2.3	2.4	2.4	2.3	1.7	2.2	7.1	5.2	3.9	2.7	3.0
Alt 8a	Flow	1.6	1.9	2.3	2.4	2.4	2.3	1.7	2.2	7.1	5.2	3.9	2.7	3.0
Alt 10a	Flow	1.6	1.9	2.3	2.4	2.4	2.3	1.7	2.2	7.1	5.2	3.9	2.7	3.0
Alt 13a	Flow	1.6	1.9	2.3	2.4	2.4	2.3	1.7	2.2	7.1	5.2	3.9	2.7	3.0
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		0.9	2.0	2.1	2.2	2.4	2.6	1.9	13.4	89.7	34.4	4.5	3.5	13.3
No Act	Flow	0.9	2.0	2.1	2.2	2.4	2.6	1.9	11.6	84.6	33.1	4.5	3.5	12.6
Alt 1a	Flow	0.9	2.0	2.1	2.2	2.4	2.6	1.9	4.5	63.7	33.6	4.7	3.5	10.4
Alt 1c	Flow	0.9	2.0	2.1	2.2	2.4	2.6	1.9	4.5	65.0	33.3	5.0	3.5	10.5
Alt 8a	Flow	0.9	2.0	2.1	2.2	2.4	2.6	1.9	4.5	63.7	33.5	4.7	3.5	10.3
Alt 10a	Flow	0.9	2.0	2.1	2.2	2.4	2.6	1.9	4.5	63.7	33.5	4.7	3.5	10.3
Alt 13a	Flow	0.9	2.0	2.1	2.2	2.4	2.6	1.9	4.5	63.6	33.5	4.7	3.5	10.3
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.8	-5.1	-1.2	0.0	0.0	-0.7
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-8.9	-26.0	-0.8	0.2	0.0	-3.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-8.9	-24.7	-1.1	0.5	0.0	-2.8
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-8.9	-26.0	-0.9	0.2	0.0	-3.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-8.9	-26.0	-0.9	0.2	0.0	-3.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-8.9	-26.1	-0.9	0.2	0.0	-3.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-14%	-6%	-4%	0%	0%	-5%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	-66%	-29%	-2%	3%	0%	-22%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	-66%	-28%	-3%	11%	0%	-21%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	-66%	-29%	-3%	4%	0%	-22%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	-66%	-29%	-3%	4%	0%	-22%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	-66%	-29%	-3%	4%	0%	-22%

Notes:
The monthly percent flow change from October through April in the 45-Year Average table reflects additional diversions in two winters during the 45-year study period. In the remaining 43 years there would be no flow change from October through April.

Table H-3.3. Below Denver Water's Diversion from Jim Creek (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		0.0	0.0	0.1	0.1	0.1	0.1	0.0	1.7	8.7	1.3	0.0	0.0	1.0
No Act	Flow	0.0	0.0	0.1	0.1	0.1	0.1	0.0	1.1	7.2	1.2	0.0	0.0	0.8
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.7	1.0	0.0	0.0	0.5
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	5.1	1.0	0.0	0.0	0.5
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.9	1.0	0.0	0.0	0.5
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.9	1.0	0.0	0.0	0.5
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.8	1.0	0.0	0.0	0.5
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.5	-1.5	-0.1	0.0	0.0	-0.2
Alt 1a	Flow Change	0.0	0.0	-0.1	-0.1	-0.1	0.0	0.0	-1.5	-4.0	-0.3	0.0	0.0	-0.5
Alt 1c	Flow Change	0.0	0.0	-0.1	-0.1	-0.1	0.0	0.0	-1.5	-3.6	-0.3	0.0	0.0	-0.5
Alt 8a	Flow Change	0.0	0.0	-0.1	-0.1	-0.1	0.0	0.0	-1.5	-3.9	-0.3	0.0	0.0	-0.5
Alt 10a	Flow Change	0.0	0.0	-0.1	-0.1	-0.1	0.0	0.0	-1.5	-3.9	-0.3	0.0	0.0	-0.5
Alt 13a	Flow Change	0.0	0.0	-0.1	-0.1	-0.1	0.0	0.0	-1.5	-3.9	-0.3	0.0	0.0	-0.5
Percent change in flow from Full Use Existing System														
No Act	% Change	-16%	0%	7%	47%	0%	0%	0%	-31%	-18%	-10%	0%	0%	-18%
Alt 1a	% Change	-100%	0%	-66%	-88%	-79%	-86%	0%	-92%	-46%	-25%	0%	0%	-51%
Alt 1c	% Change	-100%	0%	-66%	-88%	-80%	-86%	0%	-91%	-42%	-20%	507%	0%	-47%
Alt 8a	% Change	-100%	0%	-66%	-88%	-79%	-86%	0%	-92%	-44%	-24%	0%	0%	-50%
Alt 10a	% Change	-100%	0%	-66%	-88%	-79%	-86%	0%	-92%	-44%	-24%	0%	0%	-50%
Alt 13a	% Change	-100%	0%	-66%	-88%	-79%	-86%	0%	-92%	-45%	-21%	0%	0%	-50%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
No Act	Flow	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Alt 1a	Flow	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Alt 1c	Flow	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Alt 8a	Flow	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Alt 10a	Flow	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Alt 13a	Flow	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	-1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	-1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	-1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	-1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	27.4	7.1	0.0	0.0	3.3
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	24.1	6.9	0.0	0.0	2.9
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	19.9	6.6	0.0	0.0	2.3
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	20.3	6.9	0.2	0.0	2.4
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	20.2	6.6	0.0	0.0	2.3
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	20.2	6.6	0.0	0.0	2.3
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	20.3	6.6	0.0	0.0	2.3
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.9	-3.2	-0.2	0.0	0.0	-0.4
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.9	-7.5	-0.5	0.0	0.0	-1.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.7	-7.1	-0.2	0.2	0.0	-0.9
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.9	-7.2	-0.5	0.0	0.0	-1.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.9	-7.2	-0.5	0.0	0.0	-1.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.9	-7.0	-0.5	0.0	0.0	-1.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-19%	-12%	-3%	0%	0%	-11%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	-77%	-27%	-7%	0%	0%	-30%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	-74%	-26%	-2%	0%	0%	-27%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	-77%	-26%	-7%	0%	0%	-29%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	-77%	-26%	-7%	0%	0%	-29%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	-77%	-26%	-7%	0%	0%	-29%

Notes:

- The monthly percent flow change from October through April in the 45-Year Average table reflects additional diversions in two winters during the 45-year study period. In the remaining 43 years there would be no flow change from October through April.
- The average monthly flow change in August under Alternative 1c reflects that Denver Water diverts less in two days in one August during the 45-year study period compared to Full Use, No Action, and the other action alternatives.

Table H-3.4. Below Denver Water's Diversions from Cub and Buck Creeks (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.4	2.0	0.3	0.2	0.3	0.4
No Act	Flow	0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.3	1.7	0.3	0.2	0.3	0.4
Alt 1a	Flow	0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.0	0.9	0.2	0.2	0.3	0.3
Alt 1c	Flow	0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.0	1.0	0.2	0.2	0.3	0.3
Alt 8a	Flow	0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.0	1.0	0.2	0.2	0.3	0.3
Alt 10a	Flow	0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.0	1.0	0.2	0.2	0.3	0.3
Alt 13a	Flow	0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.0	1.0	0.3	0.2	0.3	0.3
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.3	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-1.0	-0.1	0.0	0.0	-0.1
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-1.0	-0.1	0.0	0.0	-0.1
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-1.0	-0.1	0.0	0.0	-0.1
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-1.0	-0.1	0.0	0.0	-0.1
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-1.0	-0.1	0.0	0.0	-0.1
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	3%	-30%	-13%	-4%	1%	0%	-8%
Alt 1a	% Change	0%	1%	-2%	-2%	-2%	-1%	0%	-90%	-52%	-23%	1%	0%	-31%
Alt 1c	% Change	0%	1%	-2%	-2%	-2%	-1%	0%	-90%	-51%	-24%	2%	0%	-31%
Alt 8a	% Change	0%	1%	-2%	-2%	-2%	-2%	0%	-90%	-50%	-21%	1%	0%	-30%
Alt 10a	% Change	0%	1%	-2%	-2%	-2%	-2%	0%	-90%	-50%	-21%	1%	0%	-30%
Alt 13a	% Change	0%	1%	-2%	-2%	-2%	-2%	0%	-90%	-51%	-18%	1%	0%	-30%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Full Use Existing System		0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.0	0.0	0.2	0.3	0.3	0.2
No Act	Flow	0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.0	0.0	0.2	0.3	0.3	0.2
Alt 1a	Flow	0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.0	0.0	0.2	0.3	0.3	0.2
Alt 1c	Flow	0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.0	0.0	0.2	0.3	0.3	0.2
Alt 8a	Flow	0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.0	0.0	0.2	0.3	0.3	0.2
Alt 10a	Flow	0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.0	0.0	0.2	0.3	0.3	0.2
Alt 13a	Flow	0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.0	0.0	0.2	0.3	0.3	0.2
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Full Use Existing System		0.1	0.2	0.3	0.3	0.2	0.0	0.0	1.1	6.4	1.5	0.0	0.1	0.8
No Act	Flow	0.1	0.2	0.3	0.3	0.2	0.0	0.0	1.0	5.8	1.4	0.0	0.1	0.8
Alt 1a	Flow	0.1	0.2	0.3	0.3	0.2	0.0	0.0	0.3	4.4	1.5	0.0	0.1	0.6
Alt 1c	Flow	0.1	0.2	0.3	0.3	0.2	0.0	0.0	0.3	4.5	1.4	0.0	0.1	0.6
Alt 8a	Flow	0.1	0.2	0.3	0.3	0.2	0.0	0.0	0.3	4.5	1.5	0.0	0.1	0.6
Alt 10a	Flow	0.1	0.2	0.3	0.3	0.2	0.0	0.0	0.3	4.5	1.5	0.0	0.1	0.6
Alt 13a	Flow	0.1	0.2	0.3	0.3	0.2	0.0	0.0	0.3	4.5	1.5	0.0	0.1	0.6
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.6	0.0	0.0	0.0	-0.1
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.8	-1.9	0.0	0.0	0.0	-0.2
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.8	-1.9	0.0	0.0	0.0	-0.2
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.8	-1.8	0.0	0.0	0.0	-0.2
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.8	-1.8	0.0	0.0	0.0	-0.2
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.8	-1.8	0.0	0.0	0.0	-0.2
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-14%	-9%	-1%	0%	0%	-7%
Alt 1a	% Change	0%	3%	2%	0%	0%	0%	0%	-72%	-30%	1%	0%	0%	-27%
Alt 1c	% Change	0%	3%	2%	0%	0%	0%	0%	-72%	-30%	-2%	167%	0%	-27%
Alt 8a	% Change	0%	3%	2%	1%	0%	0%	0%	-72%	-29%	1%	0%	0%	-26%
Alt 10a	% Change	0%	3%	2%	1%	0%	0%	0%	-72%	-29%	1%	0%	0%	-26%
Alt 13a	% Change	0%	3%	2%	1%	0%	0%	0%	-72%	-29%	1%	0%	0%	-26%

Notes:
The monthly percent flow change from October through April in the 45-Year Average table reflects additional diversions in two winters during the 45-year study period. In the remaining 43 years there would be no flow change from October through April.

Table H-3.5. Below Denver Water's Diversion from Cooper Creek (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.4	0.0	0.1	0.2	0.1
No Act	Flow	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.3	0.0	0.1	0.2	0.1
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.0	0.1	0.0	0.1	0.2	0.1
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.0	0.1	0.0	0.1	0.2	0.1
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.0	0.1	0.0	0.1	0.2	0.1
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.0	0.1	0.0	0.1	0.2	0.1
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.0	0.1	0.0	0.1	0.2	0.1
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.3	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.3	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.3	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.3	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.3	0.0	0.0	0.0	0.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	4%	-37%	-16%	2%	1%	1%	-8%
Alt 1a	% Change	0%	0%	0%	2%	-2%	-2%	0%	-97%	-66%	-12%	1%	1%	-31%
Alt 1c	% Change	0%	0%	0%	2%	-2%	-2%	0%	-97%	-67%	-16%	3%	1%	-31%
Alt 8a	% Change	0%	0%	0%	2%	-2%	-2%	0%	-97%	-63%	-7%	1%	1%	-29%
Alt 10a	% Change	0%	0%	0%	2%	-2%	-2%	0%	-97%	-63%	-5%	1%	1%	-29%
Alt 13a	% Change	0%	0%	0%	2%	-2%	-2%	0%	-97%	-66%	-3%	1%	1%	-30%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.1	0.2	0.2	0.1
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.1	0.2	0.2	0.1
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.1	0.2	0.2	0.1
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.1	0.2	0.2	0.1
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.1	0.2	0.2	0.1
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.1	0.2	0.2	0.1
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.1	0.2	0.2	0.1
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		0.0	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.1
No Act	Flow	0.0	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.1
Alt 1a	Flow	0.0	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.1
Alt 1c	Flow	0.0	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.1
Alt 8a	Flow	0.0	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.1
Alt 10a	Flow	0.0	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.1
Alt 13a	Flow	0.0	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.1
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.5	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.5	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.5	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.5	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.5	0.0	0.0	0.0	0.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-16%	-20%	0%	0%	0%	-13%
Alt 1a	% Change	0%	0%	0%	2%	0%	0%	0%	-70%	-59%	131%	0%	0%	-36%
Alt 1c	% Change	0%	0%	0%	2%	0%	0%	0%	-70%	-58%	-6%	338%	0%	-36%
Alt 8a	% Change	0%	0%	0%	2%	0%	0%	0%	-70%	-58%	131%	0%	0%	-35%
Alt 10a	% Change	0%	0%	0%	2%	0%	0%	0%	-70%	-58%	131%	0%	0%	-35%
Alt 13a	% Change	0%	0%	0%	2%	0%	0%	0%	-70%	-58%	131%	0%	0%	-35%

Notes:

The monthly percent flow change from October through April in the 45-Year Average table reflects additional diversions in two winters during the 45-year study period. In the remaining 43 years there would be no flow change from October through April.

Table H-3.6. Fraser River near Winter Park Gage (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		4.1	3.9	4.0	4.0	4.0	3.9	4.0	16.6	52.7	18.6	9.6	6.8	11.0
No Act	Flow	4.1	3.9	4.0	4.1	4.0	3.9	4.0	14.6	46.4	18.3	9.6	6.8	10.3
Alt 1a	Flow	4.0	3.9	3.9	3.8	3.8	3.8	4.0	10.5	30.2	15.9	9.6	6.8	8.4
Alt 1c	Flow	4.0	3.9	3.9	3.8	3.8	3.8	4.0	10.5	30.9	15.8	9.6	6.8	8.4
Alt 8a	Flow	4.0	3.9	3.9	3.8	3.8	3.8	4.0	10.5	31.3	16.4	9.6	6.8	8.5
Alt 10a	Flow	4.0	3.9	3.9	3.8	3.8	3.8	4.0	10.5	31.2	16.4	9.6	6.8	8.5
Alt 13a	Flow	4.0	3.9	3.9	3.8	3.8	3.8	4.0	10.5	30.5	16.2	9.6	6.8	8.4
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.1	0.0	0.0	0.0	-2.1	-6.3	-0.3	0.0	0.0	-0.7
Alt 1a	Flow Change	0.0	0.0	-0.1	-0.2	-0.2	-0.1	0.0	-6.1	-22.6	-2.7	0.0	0.0	-2.7
Alt 1c	Flow Change	0.0	0.0	-0.1	-0.2	-0.2	-0.1	0.0	-6.1	-21.9	-2.8	0.1	0.0	-2.6
Alt 8a	Flow Change	0.0	0.0	-0.1	-0.2	-0.2	-0.1	0.0	-6.1	-21.5	-2.2	0.0	0.0	-2.5
Alt 10a	Flow Change	0.0	0.0	-0.1	-0.2	-0.2	-0.1	0.0	-6.1	-21.5	-2.2	0.0	0.0	-2.5
Alt 13a	Flow Change	0.0	0.0	-0.1	-0.2	-0.2	-0.1	0.0	-6.1	-22.3	-2.4	0.0	0.0	-2.6
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	2%	0%	0%	0%	-13%	-12%	-2%	0%	0%	-7%
Alt 1a	% Change	0%	0%	-3%	-4%	-4%	-2%	0%	-37%	-43%	-15%	0%	0%	-24%
Alt 1c	% Change	0%	0%	-3%	-4%	-4%	-2%	0%	-37%	-41%	-15%	1%	0%	-24%
Alt 8a	% Change	0%	0%	-3%	-4%	-4%	-2%	0%	-37%	-41%	-12%	0%	0%	-23%
Alt 10a	% Change	0%	0%	-3%	-4%	-4%	-2%	0%	-37%	-41%	-12%	0%	0%	-23%
Alt 13a	% Change	0%	0%	-3%	-4%	-4%	-2%	0%	-37%	-42%	-13%	0%	0%	-24%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		3.9	4.0	3.8	3.8	3.8	3.8	4.1	8.2	7.9	7.8	7.9	5.7	5.4
No Act	Flow	3.9	4.0	3.8	3.8	3.8	3.8	4.1	8.2	7.9	7.8	7.9	5.7	5.4
Alt 1a	Flow	3.9	4.0	3.8	3.8	3.8	3.8	4.1	8.2	7.9	7.8	7.9	5.7	5.4
Alt 1c	Flow	3.9	4.0	3.8	3.8	3.8	3.8	4.1	8.2	7.9	7.8	7.9	5.7	5.4
Alt 8a	Flow	3.9	4.0	3.8	3.8	3.8	3.8	4.1	8.2	7.9	7.8	7.9	5.7	5.4
Alt 10a	Flow	3.9	4.0	3.8	3.8	3.8	3.8	4.1	8.2	7.9	7.8	7.9	5.7	5.4
Alt 13a	Flow	3.9	4.0	3.8	3.8	3.8	3.8	4.1	8.2	7.9	7.8	7.9	5.7	5.4
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		4.5	4.3	4.5	4.1	4.1	4.0	4.4	29.5	129.1	48.6	10.2	7.1	21.2
No Act	Flow	4.5	4.3	4.5	4.1	4.1	4.0	4.4	26.6	120.0	47.2	10.2	7.1	20.1
Alt 1a	Flow	4.5	4.3	4.5	4.1	4.1	4.0	4.4	16.0	93.2	47.4	10.4	7.1	17.0
Alt 1c	Flow	4.5	4.3	4.5	4.1	4.1	4.0	4.4	16.1	94.9	47.3	10.9	7.1	17.2
Alt 8a	Flow	4.5	4.3	4.5	4.1	4.1	4.0	4.4	16.0	93.6	47.3	10.4	7.1	17.0
Alt 10a	Flow	4.5	4.3	4.5	4.1	4.1	4.0	4.4	16.0	93.6	47.3	10.4	7.1	17.0
Alt 13a	Flow	4.5	4.3	4.5	4.1	4.1	4.0	4.4	16.0	93.6	47.2	10.4	7.1	17.0
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-2.9	-9.1	-1.5	0.0	0.0	-1.1
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-13.6	-35.9	-1.3	0.1	0.0	-4.2
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-13.4	-34.2	-1.3	0.7	0.0	-4.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-13.6	-35.5	-1.3	0.2	0.0	-4.2
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-13.6	-35.5	-1.3	0.2	0.0	-4.2
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-13.6	-35.5	-1.4	0.2	0.0	-4.2
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-10%	-7%	-3%	0%	0%	-5%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	-46%	-28%	-3%	1%	0%	-20%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	-45%	-26%	-3%	7%	0%	-19%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	-46%	-28%	-3%	2%	0%	-20%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	-46%	-27%	-3%	2%	0%	-20%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	-46%	-27%	-3%	2%	0%	-20%

Notes:
The monthly percent flow change from October through April in the 45-Year Average table reflects additional diversions in two winters during the 45-year study period. In the remaining 43 years there would be no flow change from October through April.

Table H-3.7. Vasquez Creek below the Gumlick Tunnel (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		9.8	6.9	5.1	4.0	3.3	3.3	6.3	41.4	85.4	52.9	26.3	14.8	21.6
No Act	Flow	9.9	6.9	5.2	3.9	3.3	3.3	6.3	42.5	88.6	54.9	26.7	14.9	22.2
Alt 1a	Flow	10.1	7.2	5.3	4.1	3.5	3.4	6.3	44.9	103.4	60.7	27.6	14.9	24.3
Alt 1c	Flow	10.1	7.2	5.3	4.1	3.5	3.4	6.3	44.9	102.9	60.6	27.6	14.9	24.2
Alt 8a	Flow	10.1	7.2	5.3	4.1	3.5	3.4	6.3	44.9	102.2	58.4	26.5	14.9	23.9
Alt 10a	Flow	10.1	7.2	5.3	4.1	3.5	3.4	6.3	44.9	102.1	58.2	26.5	14.9	23.9
Alt 13a	Flow	10.1	7.2	5.3	4.1	3.5	3.4	6.3	44.9	102.9	59.5	27.2	14.9	24.1
Flow change from Full Use Existing System														
No Act	Flow Change	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.1	3.2	2.0	0.4	0.1	0.6
Alt 1a	Flow Change	0.3	0.3	0.1	0.2	0.2	0.1	0.0	3.5	17.9	7.8	1.3	0.1	2.6
Alt 1c	Flow Change	0.3	0.3	0.1	0.2	0.2	0.1	0.0	3.5	17.5	7.7	1.3	0.1	2.6
Alt 8a	Flow Change	0.3	0.3	0.1	0.2	0.2	0.1	0.0	3.5	16.8	5.5	0.2	0.1	2.3
Alt 10a	Flow Change	0.3	0.3	0.1	0.2	0.2	0.1	0.0	3.5	16.7	5.3	0.2	0.1	2.2
Alt 13a	Flow Change	0.3	0.3	0.1	0.2	0.2	0.1	0.0	3.5	17.5	6.6	0.9	0.1	2.5
Percent change in flow from Full Use Existing System														
No Act	% Change	1%	0%	0%	-1%	0%	0%	0%	3%	4%	4%	2%	0%	3%
Alt 1a	% Change	3%	4%	2%	4%	5%	2%	0%	8%	21%	15%	5%	1%	12%
Alt 1c	% Change	3%	4%	2%	4%	5%	2%	0%	8%	20%	14%	5%	1%	12%
Alt 8a	% Change	3%	4%	2%	4%	5%	2%	0%	8%	20%	10%	1%	1%	10%
Alt 10a	% Change	3%	4%	2%	4%	5%	2%	0%	8%	20%	10%	1%	1%	10%
Alt 13a	% Change	3%	4%	2%	4%	5%	2%	0%	8%	20%	13%	3%	1%	11%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		9.7	6.7	4.7	3.4	2.9	2.8	6.3	41.8	88.4	33.0	19.3	11.5	19.2
No Act	Flow	9.7	6.7	4.7	3.4	2.9	2.8	6.3	41.8	88.4	33.0	19.3	11.5	19.2
Alt 1a	Flow	9.7	6.7	4.7	3.4	2.9	2.8	6.3	41.8	88.4	33.0	19.3	11.5	19.2
Alt 1c	Flow	9.7	6.7	4.7	3.4	2.9	2.8	6.3	41.8	88.4	33.0	19.3	11.5	19.2
Alt 8a	Flow	9.7	6.7	4.7	3.4	2.9	2.8	6.3	41.8	88.4	33.0	19.3	11.5	19.2
Alt 10a	Flow	9.7	6.7	4.7	3.4	2.9	2.8	6.3	41.8	88.4	33.0	19.3	11.5	19.2
Alt 13a	Flow	9.7	6.7	4.7	3.4	2.9	2.8	6.3	41.8	88.4	33.0	19.3	11.5	19.2
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		14.1	8.4	6.1	5.0	4.4	4.2	7.1	40.2	62.9	56.7	32.0	20.6	21.8
No Act	Flow	14.1	8.4	6.1	5.0	4.4	4.2	7.1	40.8	63.8	58.8	34.7	21.1	22.4
Alt 1a	Flow	14.1	8.4	6.1	5.0	4.4	4.2	7.1	46.4	76.0	59.0	33.5	21.2	23.8
Alt 1c	Flow	14.1	8.4	6.1	5.0	4.4	4.2	7.1	46.4	76.0	59.0	32.9	21.2	23.7
Alt 8a	Flow	14.1	8.4	6.1	5.0	4.4	4.2	7.1	46.4	76.0	59.4	33.5	21.2	23.8
Alt 10a	Flow	14.1	8.4	6.1	5.0	4.4	4.2	7.1	46.4	76.0	59.3	33.5	21.2	23.8
Alt 13a	Flow	14.1	8.4	6.1	5.0	4.4	4.2	7.1	46.4	76.0	58.9	33.5	21.2	23.8
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.9	2.1	2.6	0.5	0.6
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2	13.1	2.3	1.4	0.6	2.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2	13.1	2.3	0.8	0.6	1.9
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2	13.1	2.7	1.4	0.6	2.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2	13.1	2.6	1.4	0.6	2.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2	13.1	2.2	1.4	0.6	2.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	1%	1%	4%	8%	2%	3%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	15%	21%	4%	4%	3%	9%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	15%	21%	4%	3%	3%	9%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	15%	21%	5%	4%	3%	9%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	15%	21%	5%	4%	3%	9%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	15%	21%	4%	4%	3%	9%

Notes:
The monthly percent flow change from October through April in the 45-Year Average table reflects additional diversions in two winters during the 45-year study period. In the remaining 43 years there would be no flow change from October through April.

Table H-3.8. Below Denver Water's Diversion from Vasquez Creek (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		3.3	3.2	3.3	2.9	2.9	2.7	2.8	10.7	53.5	24.2	9.5	5.6	10.4
No Act	Flow	3.2	3.1	3.3	3.0	2.9	2.7	2.8	9.4	48.9	23.6	9.2	5.5	9.8
Alt 1a	Flow	3.2	3.1	3.2	2.8	2.8	2.7	2.8	5.8	33.5	17.4	8.3	5.5	7.6
Alt 1c	Flow	3.2	3.1	3.2	2.8	2.8	2.7	2.8	5.8	34.4	17.5	8.3	5.5	7.7
Alt 8a	Flow	3.2	3.1	3.2	2.8	2.8	2.7	2.8	5.8	34.5	19.8	9.1	5.5	7.9
Alt 10a	Flow	3.2	3.1	3.2	2.8	2.8	2.7	2.8	5.8	34.5	19.8	9.1	5.5	7.9
Alt 13a	Flow	3.2	3.1	3.2	2.8	2.8	2.7	2.8	5.8	33.8	18.5	8.8	5.5	7.8
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.1	0.0	0.0	0.0	-1.3	-4.6	-0.6	-0.3	-0.1	-0.6
Alt 1a	Flow Change	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	-4.9	-20.0	-6.8	-1.2	-0.1	-2.8
Alt 1c	Flow Change	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	-4.9	-19.1	-6.7	-1.2	-0.1	-2.7
Alt 8a	Flow Change	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	-4.9	-19.0	-4.4	-0.4	-0.1	-2.4
Alt 10a	Flow Change	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	-4.9	-19.0	-4.4	-0.4	-0.1	-2.4
Alt 13a	Flow Change	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	-4.9	-19.7	-5.7	-0.7	-0.1	-2.6
Percent change in flow from Full Use Existing System														
No Act	% Change	-1%	-2%	1%	2%	0%	0%	0%	-12%	-9%	-2%	-3%	-1%	-6%
Alt 1a	% Change	-3%	-4%	-3%	-3%	-3%	-1%	0%	-45%	-37%	-28%	-12%	-1%	-27%
Alt 1c	% Change	-3%	-4%	-3%	-3%	-3%	-1%	0%	-45%	-36%	-28%	-12%	-1%	-26%
Alt 8a	% Change	-3%	-4%	-3%	-3%	-3%	-1%	0%	-45%	-35%	-18%	-4%	-1%	-23%
Alt 10a	% Change	-3%	-4%	-3%	-3%	-3%	-1%	0%	-45%	-35%	-18%	-4%	-1%	-23%
Alt 13a	% Change	-3%	-4%	-3%	-3%	-3%	-1%	0%	-45%	-37%	-24%	-7%	-1%	-25%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		3.2	3.0	3.0	2.6	2.6	2.5	2.7	5.4	6.2	6.2	6.2	4.9	4.1
No Act	Flow	3.2	3.0	3.0	2.6	2.6	2.5	2.7	5.4	6.2	6.2	6.2	4.9	4.1
Alt 1a	Flow	3.2	3.0	3.0	2.6	2.6	2.5	2.7	5.4	6.2	6.2	6.2	4.9	4.1
Alt 1c	Flow	3.2	3.0	3.0	2.6	2.6	2.5	2.7	5.4	6.2	6.2	6.2	4.9	4.1
Alt 8a	Flow	3.2	3.0	3.0	2.6	2.6	2.5	2.7	5.4	6.2	6.2	6.2	4.9	4.1
Alt 10a	Flow	3.2	3.0	3.0	2.6	2.6	2.5	2.7	5.4	6.2	6.2	6.2	4.9	4.1
Alt 13a	Flow	3.2	3.0	3.0	2.6	2.6	2.5	2.7	5.4	6.2	6.2	6.2	4.9	4.1
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		3.1	3.0	3.3	3.0	3.0	2.8	2.9	20.1	124.6	60.4	15.9	6.3	20.7
No Act	Flow	3.1	3.0	3.3	3.0	3.0	2.8	2.9	19.1	120.7	59.1	14.2	5.8	20.0
Alt 1a	Flow	3.1	3.0	3.3	3.0	3.0	2.8	2.9	9.1	97.9	59.8	14.2	5.7	17.3
Alt 1c	Flow	3.1	3.0	3.3	3.0	3.0	2.8	2.9	9.1	100.6	60.8	14.3	5.7	17.6
Alt 8a	Flow	3.1	3.0	3.3	3.0	3.0	2.8	2.9	9.1	98.6	59.8	14.3	5.7	17.4
Alt 10a	Flow	3.1	3.0	3.3	3.0	3.0	2.8	2.9	9.1	98.3	59.8	14.3	5.7	17.4
Alt 13a	Flow	3.1	3.0	3.3	3.0	3.0	2.8	2.9	9.1	99.0	59.1	14.3	5.7	17.4
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.9	-3.9	-1.4	-1.7	-0.5	-0.7
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-11.0	-26.7	-0.6	-1.6	-0.5	-3.4
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-11.0	-24.0	0.4	-1.6	-0.6	-3.1
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-11.0	-26.0	-0.6	-1.6	-0.5	-3.3
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-11.0	-26.3	-0.6	-1.6	-0.5	-3.3
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-11.0	-25.6	-1.3	-1.6	-0.5	-3.3
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-5%	-3%	-2%	-11%	-8%	-3%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	-55%	-21%	-1%	-10%	-8%	-16%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	-55%	-19%	1%	-10%	-9%	-15%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	-55%	-21%	-1%	-10%	-8%	-16%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	-55%	-21%	-1%	-10%	-8%	-16%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	-55%	-21%	-2%	-10%	-8%	-16%

Notes:
The monthly percent flow change from October through April in the 45-Year Average table reflects additional diversions in two winters during the 45-year study period. In the remaining 43 years there would be no flow change from October through April.

Table H-3.9. Below Denver Water's Diversion from Little Vasquez Creek (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.8	6.3	1.4	0.0	0.0	0.7
No Act	Flow	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.5	5.4	1.4	0.0	0.0	0.6
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.8	0.0	0.0	0.3
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.8	0.0	0.0	0.3
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	1.0	0.0	0.0	0.3
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	1.1	0.0	0.0	0.3
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.9	0.0	0.0	0.3
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-0.8	0.0	0.0	0.0	-0.1
Alt 1a	Flow Change	0.0	0.0	0.0	-0.1	-0.1	0.0	0.0	-0.8	-3.8	-0.5	0.0	0.0	-0.4
Alt 1c	Flow Change	0.0	0.0	0.0	-0.1	-0.1	0.0	0.0	-0.8	-3.9	-0.6	0.0	0.0	-0.5
Alt 8a	Flow Change	0.0	0.0	0.0	-0.1	-0.1	0.0	0.0	-0.8	-3.6	-0.3	0.0	0.0	-0.4
Alt 10a	Flow Change	0.0	0.0	0.0	-0.1	-0.1	0.0	0.0	-0.8	-3.5	-0.3	0.0	0.0	-0.4
Alt 13a	Flow Change	0.0	0.0	0.0	-0.1	-0.1	0.0	0.0	-0.8	-3.7	-0.5	0.0	0.0	-0.4
Percent change in flow from Full Use Existing System														
No Act	% Change	26%	0%	0%	52%	0%	0%	0%	-34%	-14%	1%	10%	0%	-13%
Alt 1a	% Change	-25%	0%	0%	-99%	-100%	-96%	0%	-97%	-60%	-39%	-50%	0%	-61%
Alt 1c	% Change	-25%	0%	0%	-99%	-100%	-96%	0%	-97%	-62%	-41%	79%	0%	-62%
Alt 8a	% Change	-25%	0%	0%	-99%	-100%	-96%	0%	-97%	-57%	-25%	-7%	0%	-56%
Alt 10a	% Change	-25%	0%	0%	-99%	-100%	-96%	0%	-97%	-56%	-23%	11%	0%	-56%
Alt 13a	% Change	-25%	0%	0%	-99%	-100%	-96%	0%	-97%	-60%	-34%	-49%	0%	-60%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.1
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.1
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.1
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.1
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.1
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.1
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.1
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	9.9	2.7	0.0	0.0	1.1
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	8.8	2.4	0.0	0.0	0.9
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	5.0	2.7	0.1	0.0	0.7
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.9	2.5	0.2	0.0	0.6
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.8	2.5	0.1	0.0	0.6
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.9	2.7	0.1	0.0	0.6
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.9	2.5	0.1	0.0	0.6
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	-1.1	-0.3	0.0	0.0	-0.1
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-4.9	0.0	0.0	0.0	-0.4
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-5.0	-0.2	0.2	0.0	-0.4
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-5.1	-0.1	0.0	0.0	-0.4
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-5.0	0.0	0.0	0.0	-0.4
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-5.0	-0.1	0.0	0.0	-0.4
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	82%	-11%	-11%	-100%	0%	-11%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	-1%	-50%	1%	78%	0%	-38%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	-1%	-51%	-7%	544%	0%	-40%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	-1%	-51%	-5%	83%	0%	-41%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	-1%	-51%	2%	83%	0%	-39%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	-1%	-50%	-5%	81%	0%	-40%

Notes:

The monthly percent flow change from October through April in the 45-Year Average table reflects additional diversions in two winters during the 45-year study period. In the remaining 43 years there would be no flow change from October through April.

Table H-3.10. Vasquez Creek Gage (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		1.4	1.2	0.8	0.7	0.5	0.3	1.2	14.8	64.9	24.2	7.7	3.1	10.1
No Act	Flow	1.3	1.2	0.8	0.8	0.5	0.3	1.2	13.2	59.4	23.6	7.4	3.0	9.4
Alt 1a	Flow	1.3	1.1	0.7	0.6	0.4	0.3	1.2	9.2	41.1	16.9	6.5	3.0	6.9
Alt 1c	Flow	1.3	1.1	0.7	0.6	0.4	0.3	1.2	9.2	41.8	16.9	6.5	3.0	6.9
Alt 8a	Flow	1.3	1.1	0.7	0.6	0.4	0.3	1.2	9.2	42.3	19.5	7.4	3.0	7.2
Alt 10a	Flow	1.3	1.1	0.7	0.6	0.4	0.3	1.2	9.2	42.3	19.5	7.4	3.0	7.2
Alt 13a	Flow	1.3	1.1	0.7	0.6	0.4	0.3	1.2	9.2	41.4	18.0	7.0	3.0	7.0
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	-0.1	0.0	0.1	0.0	0.0	0.0	-1.6	-5.5	-0.6	-0.3	0.0	-0.7
Alt 1a	Flow Change	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	-5.6	-23.8	-7.4	-1.2	-0.1	-3.2
Alt 1c	Flow Change	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	-5.6	-23.1	-7.3	-1.2	-0.1	-3.1
Alt 8a	Flow Change	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	-5.6	-22.6	-4.8	-0.4	0.0	-2.8
Alt 10a	Flow Change	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	-5.6	-22.6	-4.8	-0.4	0.0	-2.8
Alt 13a	Flow Change	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	-5.6	-23.5	-6.2	-0.7	-0.1	-3.1
Percent change in flow from Full Use Existing System														
No Act	% Change	-3%	-4%	3%	14%	0%	0%	0%	-11%	-8%	-2%	-4%	-2%	-7%
Alt 1a	% Change	-7%	-10%	-10%	-19%	-20%	-7%	0%	-38%	-37%	-30%	-15%	-2%	-32%
Alt 1c	% Change	-7%	-10%	-10%	-19%	-20%	-7%	0%	-38%	-36%	-30%	-15%	-2%	-31%
Alt 8a	% Change	-7%	-10%	-10%	-19%	-20%	-7%	0%	-38%	-35%	-20%	-5%	-2%	-28%
Alt 10a	% Change	-7%	-10%	-10%	-19%	-20%	-7%	0%	-38%	-35%	-20%	-5%	-2%	-28%
Alt 13a	% Change	-7%	-10%	-10%	-19%	-20%	-7%	0%	-38%	-36%	-26%	-9%	-2%	-30%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		0.4	0.7	0.4	0.4	0.3	0.2	1.4	5.5	4.8	3.9	3.6	1.6	1.9
No Act	Flow	0.4	0.7	0.4	0.4	0.3	0.2	1.4	5.5	4.8	3.9	3.6	1.6	1.9
Alt 1a	Flow	0.4	0.7	0.4	0.4	0.3	0.2	1.4	5.5	4.8	3.9	3.6	1.6	1.9
Alt 1c	Flow	0.4	0.7	0.4	0.4	0.3	0.2	1.4	5.5	4.8	3.9	3.6	1.6	1.9
Alt 8a	Flow	0.4	0.7	0.4	0.4	0.3	0.2	1.4	5.5	4.8	3.9	3.6	1.6	1.9
Alt 10a	Flow	0.4	0.7	0.4	0.4	0.3	0.2	1.4	5.5	4.8	3.9	3.6	1.6	1.9
Alt 13a	Flow	0.4	0.7	0.4	0.4	0.3	0.2	1.4	5.5	4.8	3.9	3.6	1.6	1.9
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		4.3	2.3	1.4	0.7	0.4	0.2	1.9	25.2	146.7	61.6	15.0	3.8	22.0
No Act	Flow	4.3	2.3	1.4	0.7	0.4	0.2	1.9	24.4	141.6	60.0	13.2	3.3	21.1
Alt 1a	Flow	4.3	2.3	1.4	0.7	0.4	0.2	1.9	14.3	115.1	61.0	13.4	3.3	18.2
Alt 1c	Flow	4.3	2.3	1.4	0.7	0.4	0.2	1.9	14.3	117.6	61.8	13.5	3.3	18.5
Alt 8a	Flow	4.3	2.3	1.4	0.7	0.4	0.2	1.9	14.3	115.6	60.8	13.4	3.3	18.2
Alt 10a	Flow	4.3	2.3	1.4	0.7	0.4	0.2	1.9	14.3	115.4	61.1	13.4	3.3	18.2
Alt 13a	Flow	4.3	2.3	1.4	0.7	0.4	0.2	1.9	14.3	116.1	60.2	13.4	3.3	18.2
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.9	-5.1	-1.7	-1.7	-0.5	-0.8
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-11.0	-31.6	-0.6	-1.6	-0.5	-3.8
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-11.0	-29.1	0.2	-1.4	-0.6	-3.5
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-11.0	-31.0	-0.8	-1.6	-0.5	-3.7
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-11.0	-31.3	-0.5	-1.6	-0.5	-3.7
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-11.0	-30.6	-1.5	-1.6	-0.5	-3.8
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-3%	-3%	-3%	-12%	-13%	-4%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	-43%	-22%	-1%	-11%	-14%	-17%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	-43%	-20%	0%	-9%	-14%	-16%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	-43%	-21%	-1%	-10%	-14%	-17%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	-43%	-21%	-1%	-10%	-14%	-17%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	-43%	-21%	-2%	-11%	-14%	-17%

Notes:

The monthly percent flow change from October through April in the 45-Year Average table reflects additional diversions in two winters during the 45-year study period. In the remaining 43 years there would be no flow change from October through April.

Table H-3.11. Fraser River below Vasquez Creek (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		5.9	5.6	5.2	5.0	5.0	5.1	9.5	38.5	122.1	43.8	17.6	10.5	22.8
No Act	Flow	5.9	5.6	5.2	5.2	5.0	5.1	9.5	34.8	110.3	42.8	17.3	10.4	21.4
Alt 1a	Flow	5.8	5.5	5.0	4.8	4.7	5.0	9.5	26.8	75.7	33.7	16.5	10.4	16.9
Alt 1c	Flow	5.8	5.5	5.0	4.8	4.7	5.0	9.5	26.8	77.2	33.7	16.5	10.4	17.1
Alt 8a	Flow	5.8	5.5	5.0	4.8	4.7	5.0	9.5	26.8	78.1	36.8	17.3	10.4	17.5
Alt 10a	Flow	5.8	5.5	5.0	4.8	4.7	5.0	9.5	26.8	78.0	36.8	17.3	10.4	17.4
Alt 13a	Flow	5.8	5.5	5.0	4.8	4.7	5.0	9.5	26.8	76.4	35.1	16.9	10.4	17.1
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.2	0.0	0.0	0.0	-3.7	-11.8	-0.9	-0.3	-0.1	-1.4
Alt 1a	Flow Change	-0.1	-0.1	-0.2	-0.3	-0.3	-0.1	0.0	-11.7	-46.4	-10.1	-1.2	-0.1	-5.9
Alt 1c	Flow Change	-0.1	-0.1	-0.2	-0.3	-0.3	-0.1	0.0	-11.7	-44.9	-10.1	-1.1	-0.1	-5.7
Alt 8a	Flow Change	-0.1	-0.1	-0.2	-0.3	-0.3	-0.1	0.0	-11.7	-44.1	-7.0	-0.3	-0.1	-5.4
Alt 10a	Flow Change	-0.1	-0.1	-0.2	-0.3	-0.3	-0.1	0.0	-11.7	-44.1	-7.0	-0.3	-0.1	-5.4
Alt 13a	Flow Change	-0.1	-0.1	-0.2	-0.3	-0.3	-0.1	0.0	-11.7	-45.8	-8.6	-0.7	-0.1	-5.7
Percent change in flow from Full Use Existing System														
No Act	% Change	-1%	-1%	1%	3%	0%	0%	0%	-9%	-10%	-2%	-2%	0%	-6%
Alt 1a	% Change	-2%	-2%	-4%	-6%	-5%	-2%	0%	-30%	-38%	-23%	-7%	-1%	-26%
Alt 1c	% Change	-2%	-2%	-4%	-6%	-5%	-2%	0%	-30%	-37%	-23%	-6%	-1%	-25%
Alt 8a	% Change	-2%	-2%	-4%	-6%	-5%	-2%	0%	-30%	-36%	-16%	-2%	-1%	-23%
Alt 10a	% Change	-2%	-2%	-4%	-6%	-5%	-2%	0%	-30%	-36%	-16%	-2%	-1%	-23%
Alt 13a	% Change	-2%	-2%	-4%	-6%	-5%	-2%	0%	-30%	-37%	-20%	-4%	-1%	-25%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		4.7	5.0	4.4	4.3	4.4	4.6	8.1	15.2	13.7	12.0	11.8	7.7	8.0
No Act	Flow	4.7	5.0	4.4	4.3	4.4	4.6	8.1	15.2	13.7	12.0	11.8	7.7	8.0
Alt 1a	Flow	4.7	5.0	4.4	4.3	4.4	4.6	8.1	15.2	13.7	12.0	11.8	7.7	8.0
Alt 1c	Flow	4.7	5.0	4.4	4.3	4.4	4.6	8.1	15.2	13.7	12.0	11.8	7.7	8.0
Alt 8a	Flow	4.7	5.0	4.4	4.3	4.4	4.6	8.1	15.2	13.7	12.0	11.8	7.7	8.0
Alt 10a	Flow	4.7	5.0	4.4	4.3	4.4	4.6	8.1	15.2	13.7	12.0	11.8	7.7	8.0
Alt 13a	Flow	4.7	5.0	4.4	4.3	4.4	4.6	8.1	15.2	13.7	12.0	11.8	7.7	8.0
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		9.9	7.4	6.4	5.4	5.2	5.1	13.2	69.2	286.8	112.8	25.6	11.6	46.5
No Act	Flow	9.9	7.4	6.4	5.4	5.2	5.1	13.2	65.4	272.6	109.7	23.8	11.1	44.6
Alt 1a	Flow	9.9	7.4	6.4	5.4	5.2	5.1	13.2	44.7	219.3	111.0	24.1	11.1	38.6
Alt 1c	Flow	9.9	7.4	6.4	5.4	5.2	5.1	13.2	44.8	223.5	111.7	24.9	11.1	39.1
Alt 8a	Flow	9.9	7.4	6.4	5.4	5.2	5.1	13.2	44.7	220.2	110.7	24.2	11.1	38.6
Alt 10a	Flow	9.9	7.4	6.4	5.4	5.2	5.1	13.2	44.7	220.0	110.9	24.2	11.1	38.6
Alt 13a	Flow	9.9	7.4	6.4	5.4	5.2	5.1	13.2	44.7	220.7	110.0	24.1	11.1	38.6
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.8	-14.2	-3.1	-1.7	-0.5	-1.9
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-24.5	-67.5	-1.9	-1.5	-0.5	-8.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-24.3	-63.3	-1.1	-0.7	-0.5	-7.5
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-24.5	-66.6	-2.1	-1.4	-0.5	-7.9
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-24.5	-66.8	-1.9	-1.4	-0.5	-7.9
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-24.5	-66.1	-2.9	-1.4	-0.5	-8.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-5%	-5%	-3%	-7%	-4%	-4%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	-35%	-24%	-2%	-6%	-5%	-17%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	-35%	-22%	-1%	-3%	-5%	-16%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	-35%	-23%	-2%	-5%	-5%	-17%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	-35%	-23%	-2%	-5%	-5%	-17%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	-35%	-23%	-3%	-6%	-5%	-17%

Notes:
The monthly percent flow change from October through April in the 45-Year Average table reflects additional diversions in two winters during the 45-year study period. In the remaining 43 years there would be no flow change from October through April.

Table H-3.12. Below Denver Water's Diversions from Elk Creek and Tributaries (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.7	7.2	3.8	1.4	0.5	1.1
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	6.7	3.7	1.4	0.5	1.1
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.7	3.2	1.4	0.5	0.8
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.7	3.2	1.4	0.5	0.8
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.8	3.3	1.4	0.5	0.8
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.8	3.3	1.4	0.5	0.8
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.7	3.3	1.4	0.5	0.8
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.5	-0.1	0.0	0.0	-0.1
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.6	-2.5	-0.5	-0.1	0.0	-0.3
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.6	-2.5	-0.6	-0.1	0.0	-0.3
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.6	-2.4	-0.4	0.0	0.0	-0.3
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.6	-2.4	-0.4	0.0	0.0	-0.3
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.6	-2.5	-0.5	-0.1	0.0	-0.3
Percent change in flow from Full Use Existing System														
No Act	% Change	-11%	-12%	11%	38%	0%	0%	0%	-21%	-7%	-3%	-2%	-1%	-6%
Alt 1a	% Change	-24%	-62%	-70%	-84%	-80%	-62%	0%	-87%	-35%	-15%	-5%	-1%	-28%
Alt 1c	% Change	-24%	-62%	-70%	-84%	-80%	-62%	0%	-87%	-35%	-15%	-6%	-1%	-29%
Alt 8a	% Change	-24%	-62%	-70%	-84%	-80%	-62%	0%	-87%	-34%	-11%	-1%	-1%	-26%
Alt 10a	% Change	-24%	-62%	-70%	-84%	-80%	-62%	0%	-87%	-34%	-11%	-1%	-1%	-26%
Alt 13a	% Change	-24%	-62%	-70%	-84%	-80%	-62%	0%	-87%	-35%	-14%	-4%	-1%	-28%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.9	1.9	1.0	0.5	0.5
No Act	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.9	1.9	1.0	0.5	0.5
Alt 1a	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.9	1.9	1.0	0.5	0.5
Alt 1c	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.9	1.9	1.0	0.5	0.5
Alt 8a	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.9	1.9	1.0	0.5	0.5
Alt 10a	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.9	1.9	1.0	0.5	0.5
Alt 13a	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.9	1.9	1.0	0.5	0.5
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	15.4	7.0	2.7	0.4	2.3
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	15.1	6.9	2.5	0.4	2.2
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	12.7	7.0	2.6	0.4	1.9
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	12.7	7.1	2.6	0.4	1.9
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	13.0	7.0	2.6	0.4	2.0
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	12.9	7.0	2.6	0.4	2.0
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	13.0	7.0	2.6	0.4	2.0
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.3	-0.2	-0.2	0.0	-0.1
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.5	-2.7	0.0	-0.1	0.0	-0.4
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.5	-2.7	0.1	-0.1	0.0	-0.4
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.5	-2.4	0.0	-0.1	0.0	-0.3
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.5	-2.5	0.0	-0.1	0.0	-0.3
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.5	-2.4	-0.1	-0.1	0.0	-0.3
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-8%	-2%	-2%	-7%	-6%	-3%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	-74%	-17%	0%	-4%	-9%	-16%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	-74%	-17%	1%	-5%	-12%	-15%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	-74%	-16%	0%	-4%	-9%	-15%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	-74%	-16%	0%	-4%	-9%	-15%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	-74%	-16%	-1%	-4%	-9%	-15%

Notes:

The monthly percent flow change from October through April in the 45-Year Average table reflects additional diversions in two winters during the 45-year study period. In the remaining 43 years there would be no flow change from October through April.

Table H-3.13. Below Denver Water's Diversion from St. Louis Creek (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		2.8	2.4	2.0	1.9	1.7	1.6	2.0	9.0	39.0	21.3	10.1	4.9	8.2
No Act	Flow	2.8	2.4	2.0	1.9	1.7	1.6	2.0	8.5	37.2	20.5	9.8	4.9	7.9
Alt 1a	Flow	2.8	2.3	2.0	1.9	1.7	1.6	2.0	6.7	28.9	17.8	9.6	4.9	6.9
Alt 1c	Flow	2.8	2.3	2.0	1.9	1.7	1.6	2.0	6.7	29.0	17.9	9.6	4.9	6.9
Alt 8a	Flow	2.8	2.3	2.0	1.9	1.7	1.6	2.0	6.7	29.4	18.6	9.9	4.9	7.0
Alt 10a	Flow	2.8	2.3	2.0	1.9	1.7	1.6	2.0	6.7	29.4	18.6	9.9	4.9	7.0
Alt 13a	Flow	2.8	2.3	2.0	1.9	1.7	1.6	2.0	6.7	29.1	18.3	9.7	4.9	6.9
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.5	-1.8	-0.8	-0.3	0.0	-0.3
Alt 1a	Flow Change	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-2.3	-10.0	-3.5	-0.5	0.0	-1.4
Alt 1c	Flow Change	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-2.3	-10.0	-3.4	-0.5	0.0	-1.4
Alt 8a	Flow Change	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-2.3	-9.6	-2.7	-0.1	0.0	-1.2
Alt 10a	Flow Change	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-2.3	-9.6	-2.7	-0.1	0.0	-1.2
Alt 13a	Flow Change	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-2.3	-9.9	-3.0	-0.3	0.0	-1.3
Percent change in flow from Full Use Existing System														
No Act	% Change	-1%	0%	0%	0%	0%	0%	0%	-6%	-5%	-4%	-3%	-1%	-3%
Alt 1a	% Change	-2%	0%	0%	0%	0%	0%	0%	-26%	-26%	-16%	-4%	-1%	-17%
Alt 1c	% Change	-2%	0%	0%	0%	0%	0%	0%	-26%	-26%	-16%	-5%	-1%	-16%
Alt 8a	% Change	-2%	0%	0%	0%	0%	0%	0%	-25%	-25%	-13%	-1%	-1%	-15%
Alt 10a	% Change	-2%	0%	0%	0%	0%	0%	0%	-26%	-25%	-12%	-1%	-1%	-15%
Alt 13a	% Change	-2%	0%	0%	0%	0%	0%	0%	-26%	-25%	-14%	-3%	-1%	-16%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		2.7	2.3	2.0	1.8	1.7	1.6	2.3	6.3	7.9	7.8	6.2	3.7	3.9
No Act	Flow	2.7	2.3	2.0	1.8	1.7	1.6	2.3	6.3	7.9	7.8	6.2	3.7	3.9
Alt 1a	Flow	2.7	2.3	2.0	1.8	1.7	1.6	2.3	6.3	7.9	7.8	6.2	3.7	3.9
Alt 1c	Flow	2.7	2.3	2.0	1.8	1.7	1.6	2.3	6.3	7.9	7.8	6.2	3.7	3.9
Alt 8a	Flow	2.7	2.3	2.0	1.8	1.7	1.6	2.3	6.3	7.9	7.8	6.2	3.7	3.9
Alt 10a	Flow	2.7	2.3	2.0	1.8	1.7	1.6	2.3	6.3	7.9	7.8	6.2	3.7	3.9
Alt 13a	Flow	2.7	2.3	2.0	1.8	1.7	1.6	2.3	6.3	7.9	7.8	6.2	3.7	3.9
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		3.4	2.8	2.5	1.8	1.8	1.8	2.4	14.6	83.2	46.5	18.9	6.5	15.5
No Act	Flow	3.4	2.8	2.5	1.8	1.8	1.8	2.4	14.4	82.0	45.3	17.0	6.2	15.1
Alt 1a	Flow	3.4	2.8	2.5	1.8	1.8	1.8	2.4	10.0	72.3	44.7	18.0	6.2	14.0
Alt 1c	Flow	3.4	2.8	2.5	1.8	1.8	1.8	2.4	10.2	72.6	45.4	18.0	6.2	14.1
Alt 8a	Flow	3.4	2.8	2.5	1.8	1.8	1.8	2.4	10.3	73.2	45.0	18.0	6.2	14.1
Alt 10a	Flow	3.4	2.8	2.5	1.8	1.8	1.8	2.4	10.1	73.2	45.2	18.0	6.2	14.1
Alt 13a	Flow	3.4	2.8	2.5	1.8	1.8	1.8	2.4	10.1	72.6	45.5	18.0	6.2	14.1
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-1.2	-1.2	-1.9	-0.3	-0.4
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-4.6	-10.9	-1.8	-1.0	-0.3	-1.6
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-4.4	-10.7	-1.1	-0.9	-0.3	-1.5
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-4.4	-10.0	-1.6	-1.0	-0.3	-1.4
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-4.5	-10.0	-1.3	-1.0	-0.3	-1.4
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-4.5	-10.6	-1.0	-1.0	-0.3	-1.5
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-2%	-1%	-3%	-10%	-5%	-3%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	-31%	-13%	-4%	-5%	-5%	-10%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	-30%	-13%	-2%	-5%	-5%	-9%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	-30%	-12%	-3%	-5%	-5%	-9%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	-31%	-12%	-3%	-5%	-5%	-9%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	-31%	-13%	-2%	-5%	-5%	-9%

Notes:

The monthly percent flow change from October through April in the 45-Year Average table reflects additional diversions in two winters during the 45-year study period. In the remaining 43 years there would be no flow change from October through April.

Table H-3.14. Below Denver Water's Diversions from St. Louis Creek Tributaries (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		0.1	0.1	0.0	0.1	0.1	0.0	0.0	2.8	26.4	10.1	1.6	0.0	3.4
No Act	Flow	0.0	0.1	0.0	0.1	0.1	0.0	0.0	2.2	24.2	9.7	1.3	0.0	3.1
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	15.7	7.0	1.0	0.0	2.0
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	15.9	6.9	0.9	0.0	2.0
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	16.2	7.9	1.5	0.0	2.2
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	16.2	7.8	1.5	0.0	2.2
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	15.9	7.4	1.2	0.0	2.1
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.6	-2.2	-0.4	-0.3	0.0	-0.3
Alt 1a	Flow Change	-0.1	-0.1	0.0	-0.1	-0.1	0.0	0.0	-2.5	-10.7	-3.1	-0.6	0.0	-1.4
Alt 1c	Flow Change	-0.1	-0.1	0.0	-0.1	-0.1	0.0	0.0	-2.5	-10.5	-3.2	-0.7	0.0	-1.4
Alt 8a	Flow Change	-0.1	-0.1	0.0	-0.1	-0.1	0.0	0.0	-2.5	-10.1	-2.2	-0.1	0.0	-1.3
Alt 10a	Flow Change	-0.1	-0.1	0.0	-0.1	-0.1	0.0	0.0	-2.5	-10.2	-2.3	-0.2	0.0	-1.3
Alt 13a	Flow Change	-0.1	-0.1	0.0	-0.1	-0.1	0.0	0.0	-2.5	-10.5	-2.7	-0.5	0.0	-1.4
Percent change in flow from Full Use Existing System														
No Act	% Change	-57%	-9%	14%	40%	0%	0%	0%	-22%	-8%	-4%	-20%	-64%	-9%
Alt 1a	% Change	-100%	-96%	-100%	-100%	-100%	-91%	0%	-90%	-41%	-30%	-40%	-67%	-42%
Alt 1c	% Change	-100%	-96%	-100%	-100%	-100%	-91%	0%	-90%	-40%	-32%	-43%	-87%	-42%
Alt 8a	% Change	-100%	-96%	-100%	-100%	-100%	-91%	0%	-90%	-38%	-21%	-9%	-66%	-37%
Alt 10a	% Change	-100%	-96%	-100%	-100%	-100%	-91%	0%	-90%	-38%	-22%	-9%	-66%	-37%
Alt 13a	% Change	-100%	-96%	-100%	-100%	-100%	-91%	0%	-90%	-40%	-27%	-28%	-66%	-40%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.4	65.6	30.8	9.7	0.3	9.6
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.8	63.8	29.6	7.4	0.1	9.1
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	53.5	29.5	8.5	0.1	7.8
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	54.6	30.2	8.3	0.0	8.0
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	55.2	30.0	8.6	0.1	8.0
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	54.9	29.6	8.5	0.1	8.0
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	54.0	29.7	8.4	0.1	7.9
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.6	-1.8	-1.2	-2.3	-0.2	-0.5
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-5.9	-12.0	-1.3	-1.2	-0.2	-1.7
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-5.9	-11.0	-0.6	-1.4	-0.3	-1.6
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-5.9	-10.4	-0.8	-1.2	-0.2	-1.5
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-5.9	-10.7	-1.2	-1.2	-0.2	-1.6
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-5.9	-11.5	-1.1	-1.3	-0.2	-1.7
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-7%	-3%	-4%	-24%	-67%	-5%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	-70%	-18%	-4%	-12%	-72%	-18%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	-70%	-17%	-2%	-14%	-100%	-17%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	-70%	-16%	-3%	-12%	-71%	-16%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	-70%	-16%	-4%	-12%	-71%	-17%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	-70%	-18%	-4%	-13%	-71%	-17%

Notes:

The monthly percent flow change from October through April in the 45-Year Average table reflects additional diversions in two winters during the 45-year study period. In the remaining 43 years there would be no flow change from October through April.

Table H-3.15. St. Louis Creek near Fraser Gage (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		8.6	7.4	6.0	5.3	4.9	5.0	7.5	26.4	98.9	50.3	20.8	11.2	21.0
No Act	Flow	8.5	7.4	6.0	5.4	4.9	5.0	7.5	25.2	95.0	49.1	20.3	11.1	20.4
Alt 1a	Flow	8.5	7.3	6.0	5.3	4.8	4.9	7.5	21.5	78.2	43.7	19.7	11.1	18.2
Alt 1c	Flow	8.5	7.3	6.0	5.3	4.8	4.9	7.5	21.6	78.4	43.6	19.7	11.1	18.2
Alt 8a	Flow	8.5	7.3	6.0	5.3	4.8	4.9	7.5	21.6	79.2	45.4	20.6	11.1	18.5
Alt 10a	Flow	8.5	7.3	6.0	5.3	4.8	4.9	7.5	21.6	79.2	45.3	20.6	11.1	18.5
Alt 13a	Flow	8.5	7.3	6.0	5.3	4.8	4.9	7.5	21.5	78.5	44.5	20.1	11.1	18.3
Flow change from Full Use Existing System														
No Act	Flow Change	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-1.2	-3.9	-1.2	-0.6	-0.1	-0.6
Alt 1a	Flow Change	-0.1	-0.1	0.0	-0.1	-0.1	0.0	0.0	-4.8	-20.8	-6.6	-1.1	-0.1	-2.8
Alt 1c	Flow Change	-0.1	-0.1	0.0	-0.1	-0.1	0.0	0.0	-4.8	-20.5	-6.6	-1.2	-0.1	-2.8
Alt 8a	Flow Change	-0.1	-0.1	0.0	-0.1	-0.1	0.0	0.0	-4.8	-19.7	-4.9	-0.3	-0.1	-2.5
Alt 10a	Flow Change	-0.1	-0.1	0.0	-0.1	-0.1	0.0	0.0	-4.8	-19.8	-4.9	-0.3	-0.1	-2.5
Alt 13a	Flow Change	-0.1	-0.1	0.0	-0.1	-0.1	0.0	0.0	-4.8	-20.4	-5.7	-0.8	-0.1	-2.7
Percent change in flow from Full Use Existing System														
No Act	% Change	-1%	0%	0%	0%	0%	0%	0%	-4%	-4%	-2%	-3%	-1%	-3%
Alt 1a	% Change	-1%	-1%	0%	-1%	-1%	-1%	0%	-18%	-21%	-13%	-5%	-1%	-13%
Alt 1c	% Change	-1%	-1%	0%	-1%	-1%	-1%	0%	-18%	-21%	-13%	-6%	-1%	-13%
Alt 8a	% Change	-1%	-1%	0%	-1%	-1%	-1%	0%	-18%	-20%	-10%	-1%	-1%	-12%
Alt 10a	% Change	-1%	-1%	0%	-1%	-1%	-1%	0%	-18%	-20%	-10%	-1%	-1%	-12%
Alt 13a	% Change	-1%	-1%	0%	-1%	-1%	-1%	0%	-18%	-21%	-11%	-4%	-1%	-13%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		7.6	7.0	5.8	4.9	4.5	4.6	8.7	18.1	25.3	17.6	13.2	9.2	10.5
No Act	Flow	7.6	7.0	5.8	4.9	4.5	4.6	8.7	18.1	25.3	17.6	13.2	9.2	10.5
Alt 1a	Flow	7.6	7.0	5.8	4.9	4.5	4.6	8.7	18.1	25.3	17.6	13.2	9.2	10.5
Alt 1c	Flow	7.6	7.0	5.8	4.9	4.5	4.6	8.7	18.1	25.3	17.6	13.2	9.2	10.5
Alt 8a	Flow	7.6	7.0	5.8	4.9	4.5	4.6	8.7	18.1	25.3	17.6	13.2	9.2	10.5
Alt 10a	Flow	7.6	7.0	5.8	4.9	4.5	4.6	8.7	18.1	25.3	17.6	13.2	9.2	10.5
Alt 13a	Flow	7.6	7.0	5.8	4.9	4.5	4.6	8.7	18.1	25.3	17.6	13.2	9.2	10.5
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		11.8	9.6	7.8	5.9	5.7	6.1	9.0	41.6	194.9	105.0	42.1	14.6	37.8
No Act	Flow	11.8	9.6	7.8	5.9	5.7	6.1	9.0	40.8	191.9	102.5	37.9	14.0	36.9
Alt 1a	Flow	11.8	9.6	7.8	5.9	5.7	6.1	9.0	31.2	172.0	101.8	39.9	14.0	34.6
Alt 1c	Flow	11.8	9.6	7.8	5.9	5.7	6.1	9.0	31.3	173.3	103.2	39.8	13.9	34.8
Alt 8a	Flow	11.8	9.6	7.8	5.9	5.7	6.1	9.0	31.4	174.6	102.6	39.9	14.0	34.9
Alt 10a	Flow	11.8	9.6	7.8	5.9	5.7	6.1	9.0	31.3	174.2	102.4	39.9	14.0	34.8
Alt 13a	Flow	11.8	9.6	7.8	5.9	5.7	6.1	9.0	31.2	172.7	102.9	39.8	14.0	34.7
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.9	-3.0	-2.5	-4.2	-0.6	-0.9
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-10.5	-23.0	-3.1	-2.2	-0.6	-3.3
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-10.3	-21.6	-1.7	-2.3	-0.7	-3.1
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-10.2	-20.4	-2.3	-2.2	-0.6	-3.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-10.4	-20.7	-2.5	-2.2	-0.6	-3.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-10.4	-22.2	-2.1	-2.3	-0.6	-3.1
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-2%	-2%	-2%	-10%	-4%	-2%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	-25%	-12%	-3%	-5%	-4%	-9%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	-25%	-11%	-2%	-5%	-5%	-8%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	-25%	-10%	-2%	-5%	-4%	-8%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	-25%	-11%	-2%	-5%	-4%	-8%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	-25%	-11%	-2%	-5%	-4%	-8%

Notes:
The monthly percent flow change from October through April in the 45-Year Average table reflects additional diversions in two winters during the 45-year study period. In the remaining 43 years there would be no flow change from October through April.

Table H-3.16. Below Denver Water's Diversion from King Creek (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.2	0.4	0.1	0.0	0.2
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.1	0.4	0.1	0.0	0.1
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.3	0.0	0.0	0.1
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.3	0.0	0.0	0.1
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.3	0.1	0.0	0.1
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.3	0.1	0.0	0.1
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.3	0.1	0.0	0.1
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.5	-0.1	0.0	0.0	-0.1
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.5	-0.1	0.0	0.0	-0.1
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.5	-0.1	0.0	0.0	-0.1
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.5	-0.1	0.0	0.0	-0.1
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.5	-0.1	0.0	0.0	-0.1
Percent change in flow from Full Use Existing System														
No Act	% Change	-49%	-15%	0%	21%	0%	0%	0%	-21%	-9%	-5%	-15%	-63%	-9%
Alt 1a	% Change	-100%	-96%	-99%	-100%	-100%	-96%	0%	-92%	-41%	-32%	-40%	-79%	-43%
Alt 1c	% Change	-100%	-96%	-99%	-100%	-100%	-96%	0%	-92%	-41%	-32%	-42%	-100%	-43%
Alt 8a	% Change	-100%	-96%	-99%	-100%	-100%	-96%	0%	-92%	-39%	-22%	-9%	-79%	-38%
Alt 10a	% Change	-100%	-96%	-99%	-100%	-100%	-96%	0%	-92%	-40%	-23%	-9%	-79%	-39%
Alt 13a	% Change	-100%	-96%	-99%	-100%	-100%	-96%	0%	-92%	-41%	-29%	-28%	-79%	-42%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	2.8	1.4	0.4	0.0	0.4
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	2.7	1.4	0.4	0.0	0.4
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.3	1.4	0.4	0.0	0.3
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.3	1.4	0.4	0.0	0.4
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.3	1.4	0.4	0.0	0.4
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.3	1.4	0.4	0.0	0.4
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.3	1.4	0.4	0.0	0.3
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	-0.1	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-0.5	0.0	0.0	0.0	-0.1
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-0.5	0.0	-0.1	0.0	-0.1
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-0.5	0.0	0.0	0.0	-0.1
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-0.5	0.0	0.0	0.0	-0.1
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-0.5	0.0	0.0	0.0	-0.1
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-5%	-4%	-3%	-16%	-63%	-5%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	-76%	-18%	-1%	-12%	-79%	-17%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	-76%	-17%	-1%	-13%	-100%	-17%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	-76%	-17%	0%	-11%	-79%	-16%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	-76%	-17%	-1%	-11%	-79%	-16%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	-76%	-18%	-3%	-11%	-79%	-18%

Notes:
The monthly percent flow change from October through April in the 45-Year Average table reflects additional diversions in two winters during the 45-year study period. In the remaining 43 years there would be no flow change from October through April.

Table H-3.17. Fraser River below St. Louis Creek (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		7.2	10.3	8.0	7.0	6.7	8.5	28.7	87.7	229.5	79.9	26.4	12.3	42.7
No Act	Flow	7.0	10.2	8.0	7.3	6.7	8.5	28.7	82.8	213.2	77.6	25.5	12.2	40.6
Alt 1a	Flow	6.9	10.1	7.7	6.7	6.4	8.4	28.7	70.5	159.4	62.5	24.1	12.2	33.6
Alt 1c	Flow	6.9	10.1	7.7	6.7	6.4	8.4	28.7	70.6	161.1	62.4	24.1	12.1	33.7
Alt 8a	Flow	6.9	10.1	7.7	6.7	6.4	8.4	28.7	70.6	162.8	67.5	25.8	12.2	34.5
Alt 10a	Flow	6.9	10.1	7.7	6.7	6.4	8.4	28.7	70.5	162.7	67.4	25.8	12.2	34.4
Alt 13a	Flow	6.9	10.1	7.7	6.7	6.4	8.4	28.7	70.5	160.3	64.9	24.9	12.2	34.0
Flow change from Full Use Existing System														
No Act	Flow Change	-0.1	-0.1	0.0	0.2	0.0	0.0	0.0	-5.0	-16.4	-2.3	-0.9	-0.1	-2.0
Alt 1a	Flow Change	-0.2	-0.2	-0.2	-0.4	-0.4	-0.2	0.0	-17.2	-70.2	-17.4	-2.4	-0.1	-9.1
Alt 1c	Flow Change	-0.2	-0.2	-0.2	-0.4	-0.4	-0.2	0.0	-17.2	-68.5	-17.5	-2.4	-0.2	-8.9
Alt 8a	Flow Change	-0.2	-0.2	-0.2	-0.4	-0.4	-0.2	0.0	-17.2	-66.7	-12.5	-0.6	-0.1	-8.2
Alt 10a	Flow Change	-0.2	-0.2	-0.2	-0.4	-0.4	-0.2	0.0	-17.2	-66.8	-12.5	-0.6	-0.1	-8.2
Alt 13a	Flow Change	-0.2	-0.2	-0.2	-0.4	-0.4	-0.2	0.0	-17.2	-69.2	-15.0	-1.6	-0.1	-8.7
Percent change in flow from Full Use Existing System														
No Act	% Change	-2%	-1%	0%	3%	0%	0%	0%	-6%	-7%	-3%	-3%	-1%	-5%
Alt 1a	% Change	-3%	-2%	-3%	-5%	-6%	-2%	0%	-20%	-31%	-22%	-9%	-1%	-21%
Alt 1c	% Change	-3%	-2%	-3%	-5%	-6%	-2%	0%	-20%	-30%	-22%	-9%	-1%	-21%
Alt 8a	% Change	-3%	-2%	-3%	-5%	-6%	-2%	0%	-20%	-29%	-16%	-2%	-1%	-19%
Alt 10a	% Change	-3%	-2%	-3%	-5%	-6%	-2%	0%	-20%	-29%	-16%	-2%	-1%	-19%
Alt 13a	% Change	-3%	-2%	-3%	-5%	-6%	-2%	0%	-20%	-30%	-19%	-6%	-1%	-20%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		3.5	8.7	6.6	5.3	5.4	6.1	22.2	29.5	21.9	12.1	13.5	6.4	11.8
No Act	Flow	3.5	8.7	6.6	5.3	5.4	6.1	22.2	29.5	21.9	12.1	13.5	6.4	11.8
Alt 1a	Flow	3.5	8.7	6.6	5.3	5.4	6.1	22.2	29.5	21.9	12.1	13.5	6.4	11.8
Alt 1c	Flow	3.5	8.7	6.6	5.3	5.4	6.1	22.2	29.5	21.9	12.1	13.5	6.4	11.8
Alt 8a	Flow	3.5	8.7	6.6	5.3	5.4	6.1	22.2	29.5	21.9	12.1	13.5	6.4	11.8
Alt 10a	Flow	3.5	8.7	6.6	5.3	5.4	6.1	22.2	29.5	21.9	12.1	13.5	6.4	11.8
Alt 13a	Flow	3.5	8.7	6.6	5.3	5.4	6.1	22.2	29.5	21.9	12.1	13.5	6.4	11.8
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		15.0	15.0	11.0	8.5	8.4	9.9	44.2	167.0	530.6	214.0	58.1	17.0	91.6
No Act	Flow	15.0	15.0	11.0	8.5	8.4	9.9	44.2	162.2	513.0	208.2	51.9	15.9	88.6
Alt 1a	Flow	15.0	15.0	11.0	8.5	8.4	9.9	44.2	130.4	436.8	209.0	54.3	15.8	79.9
Alt 1c	Flow	15.0	15.0	11.0	8.5	8.4	9.9	44.2	130.7	442.5	211.2	54.9	15.7	80.6
Alt 8a	Flow	15.0	15.0	11.0	8.5	8.4	9.9	44.2	130.6	440.6	209.6	54.4	15.8	80.2
Alt 10a	Flow	15.0	15.0	11.0	8.5	8.4	9.9	44.2	130.5	440.0	209.6	54.4	15.8	80.2
Alt 13a	Flow	15.0	15.0	11.0	8.5	8.4	9.9	44.2	130.4	439.3	209.0	54.3	15.8	80.1
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-4.8	-17.6	-5.8	-6.2	-1.1	-3.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-36.7	-93.8	-5.0	-3.8	-1.2	-11.7
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-36.4	-88.1	-2.8	-3.2	-1.3	-11.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-36.4	-89.9	-4.4	-3.7	-1.2	-11.3
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-36.6	-90.6	-4.4	-3.7	-1.2	-11.4
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-36.6	-91.3	-5.0	-3.9	-1.2	-11.5
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-3%	-3%	-3%	-11%	-7%	-3%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	-22%	-18%	-2%	-7%	-7%	-13%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	-22%	-17%	-1%	-5%	-8%	-12%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	-22%	-17%	-2%	-6%	-7%	-12%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	-22%	-17%	-2%	-6%	-7%	-12%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	-22%	-17%	-2%	-7%	-7%	-13%

Notes:

The monthly percent flow change from October through April in the 45-Year Average table reflects additional diversions in two winters during the 45-year study period. In the remaining 43 years there would be no flow change from October through April.

Table H-3.18. Below Denver Water's Englewood Ranch Gravity System Diversions (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		4.6	4.0	3.4	2.3	2.4	2.8	3.3	16.0	60.8	16.0	5.9	4.2	10.5
No Act	Flow	4.6	4.0	3.4	2.3	2.4	2.8	3.3	15.7	60.3	15.5	5.8	4.2	10.4
Alt 1a	Flow	4.6	4.0	3.4	2.3	2.4	2.8	3.3	14.9	59.4	14.8	5.5	4.2	10.1
Alt 1c	Flow	4.6	4.0	3.4	2.3	2.4	2.8	3.3	14.9	59.5	14.7	5.5	4.2	10.1
Alt 8a	Flow	4.6	4.0	3.4	2.3	2.4	2.8	3.3	14.9	59.4	15.1	5.8	4.2	10.2
Alt 10a	Flow	4.6	4.0	3.4	2.3	2.4	2.8	3.3	14.9	59.4	15.1	5.8	4.2	10.2
Alt 13a	Flow	4.6	4.0	3.4	2.3	2.4	2.8	3.3	14.9	59.4	14.9	5.6	4.2	10.2
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.5	-0.5	-0.1	0.0	-0.1
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.0	-1.4	-1.3	-0.3	0.0	-0.3
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.0	-1.3	-1.3	-0.3	0.0	-0.3
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.0	-1.4	-0.9	0.0	0.0	-0.3
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.0	-1.4	-0.9	0.0	0.0	-0.3
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.0	-1.4	-1.1	-0.2	0.0	-0.3
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-1%	-1%	-3%	-1%	0%	-1%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	-7%	-2%	-8%	-6%	0%	-3%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	-7%	-2%	-8%	-6%	0%	-3%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	-7%	-2%	-6%	0%	0%	-3%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	-7%	-2%	-6%	0%	0%	-3%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	-7%	-2%	-7%	-4%	0%	-3%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Full Use Existing System		4.7	4.1	3.0	2.2	2.3	2.9	3.4	5.9	16.3	4.8	5.0	4.1	4.9
No Act	Flow	4.7	4.1	3.0	2.2	2.3	2.9	3.4	5.9	16.3	4.8	5.0	4.1	4.9
Alt 1a	Flow	4.7	4.1	3.0	2.2	2.3	2.9	3.4	5.9	16.3	4.8	5.0	4.1	4.9
Alt 1c	Flow	4.7	4.1	3.0	2.2	2.3	2.9	3.4	5.9	16.3	4.8	5.0	4.1	4.9
Alt 8a	Flow	4.7	4.1	3.0	2.2	2.3	2.9	3.4	5.9	16.3	4.8	5.0	4.1	4.9
Alt 10a	Flow	4.7	4.1	3.0	2.2	2.3	2.9	3.4	5.9	16.3	4.8	5.0	4.1	4.9
Alt 13a	Flow	4.7	4.1	3.0	2.2	2.3	2.9	3.4	5.9	16.3	4.8	5.0	4.1	4.9
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Full Use Existing System		5.2	4.3	4.3	2.8	2.9	2.8	3.5	23.6	101.6	35.7	9.1	5.2	16.7
No Act	Flow	5.2	4.3	4.3	2.8	2.9	2.8	3.5	23.3	101.5	35.1	8.6	5.1	16.6
Alt 1a	Flow	5.2	4.3	4.3	2.8	2.9	2.8	3.5	20.7	99.5	35.4	8.9	5.1	16.3
Alt 1c	Flow	5.2	4.3	4.3	2.8	2.9	2.8	3.5	20.7	99.5	35.4	9.0	5.1	16.3
Alt 8a	Flow	5.2	4.3	4.3	2.8	2.9	2.8	3.5	20.7	99.5	35.4	8.9	5.1	16.3
Alt 10a	Flow	5.2	4.3	4.3	2.8	2.9	2.8	3.5	20.7	99.5	35.4	8.9	5.1	16.3
Alt 13a	Flow	5.2	4.3	4.3	2.8	2.9	2.8	3.5	20.7	99.5	35.4	8.9	5.1	16.3
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	0.0	-0.5	-0.5	-0.1	-0.1
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-2.9	-2.1	-0.3	-0.2	-0.1	-0.5
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-2.9	-2.1	-0.3	-0.1	-0.1	-0.5
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-2.9	-2.1	-0.3	-0.2	-0.1	-0.5
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-2.9	-2.1	-0.3	-0.2	-0.1	-0.5
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-2.9	-2.1	-0.3	-0.2	-0.1	-0.5
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-1%	0%	-1%	-6%	-2%	-1%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	-12%	-2%	-1%	-2%	-2%	-3%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	-12%	-2%	-1%	-1%	-2%	-3%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	-12%	-2%	-1%	-2%	-2%	-3%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	-12%	-2%	-1%	-2%	-2%	-3%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	-12%	-2%	-1%	-2%	-2%	-3%

Notes:

The monthly percent flow change from October through April in the 45-Year Average table reflects additional diversions in two winters during the 45-year study period. In the remaining 43 years there would be no flow change from October through April.

Table H-3.19. Below Denver Water's Diversions from North Fork Ranch Creek and Dribble Creek (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		0.1	0.1	0.1	0.1	0.1	0.0	0.1	2.0	15.4	5.2	0.6	0.1	2.0
No Act	Flow	0.1	0.1	0.1	0.1	0.1	0.0	0.1	1.7	14.9	5.0	0.5	0.1	1.9
Alt 1a	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.1	1.2	11.8	4.2	0.4	0.1	1.5
Alt 1c	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.1	1.2	11.9	4.2	0.4	0.1	1.5
Alt 8a	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.1	1.2	12.1	4.5	0.5	0.1	1.6
Alt 10a	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.1	1.2	12.1	4.5	0.5	0.1	1.6
Alt 13a	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.1	1.2	11.9	4.3	0.4	0.1	1.5
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-0.5	-0.2	-0.1	0.0	-0.1
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.8	-3.5	-1.0	-0.2	0.0	-0.5
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.8	-3.5	-1.0	-0.2	0.0	-0.5
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.8	-3.3	-0.7	0.0	0.0	-0.4
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.8	-3.3	-0.7	0.0	0.0	-0.4
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.8	-3.4	-0.9	-0.1	0.0	-0.4
Percent change in flow from Full Use Existing System														
No Act	% Change	-4%	0%	1%	29%	0%	0%	0%	-14%	-3%	-4%	-10%	-5%	-5%
Alt 1a	% Change	-15%	-51%	-41%	-54%	-76%	-49%	0%	-41%	-23%	-19%	-36%	-5%	-24%
Alt 1c	% Change	-15%	-51%	-41%	-54%	-76%	-49%	0%	-41%	-22%	-19%	-38%	-5%	-24%
Alt 8a	% Change	-15%	-51%	-41%	-54%	-76%	-49%	0%	-41%	-21%	-13%	-4%	-5%	-21%
Alt 10a	% Change	-15%	-51%	-41%	-54%	-76%	-49%	0%	-41%	-22%	-13%	-5%	-5%	-21%
Alt 13a	% Change	-15%	-51%	-41%	-54%	-76%	-49%	0%	-41%	-22%	-16%	-26%	-5%	-23%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.6	0.1	0.0	0.2
No Act	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.6	0.1	0.0	0.2
Alt 1a	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.6	0.1	0.0	0.2
Alt 1c	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.6	0.1	0.0	0.2
Alt 8a	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.6	0.1	0.0	0.2
Alt 10a	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.6	0.1	0.0	0.2
Alt 13a	Flow	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.6	0.1	0.0	0.2
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	32.2	13.0	2.0	0.3	4.3
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4	32.0	12.6	1.6	0.2	4.2
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	28.6	12.7	1.8	0.2	3.9
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	28.7	12.6	1.8	0.2	3.9
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	28.7	12.6	1.8	0.2	3.9
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	28.6	12.6	1.8	0.2	3.9
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	28.7	12.8	1.8	0.2	3.9
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.2	-0.5	-0.4	-0.1	-0.1
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.4	-3.6	-0.3	-0.2	-0.1	-0.5
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.4	-3.5	-0.5	-0.2	0.0	-0.5
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.4	-3.5	-0.4	-0.2	-0.1	-0.5
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.4	-3.6	-0.4	-0.2	-0.1	-0.5
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.4	-3.5	-0.3	-0.2	-0.1	-0.5
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-3%	-1%	-3%	-19%	-19%	-2%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	-31%	-11%	-2%	-10%	-19%	-11%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	-31%	-11%	-3%	-10%	-17%	-11%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	-31%	-11%	-3%	-10%	-19%	-11%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	-31%	-11%	-3%	-10%	-19%	-11%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	-31%	-11%	-2%	-10%	-19%	-10%

Notes:

The monthly percent flow change from October through April in the 45-Year Average table reflects additional diversions in two winters during the 45-year study period. In the remaining 43 years there would be no flow change from October through April.

Table H-3.20. Below Denver Water's Diversion from Main Ranch Creek (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		1.4	1.4	1.2	1.0	0.9	0.8	1.3	4.8	20.2	8.4	3.0	1.7	3.9
No Act	Flow	1.4	1.4	1.2	1.0	0.9	0.8	1.3	4.5	19.5	8.1	3.0	1.7	3.7
Alt 1a	Flow	1.4	1.4	1.2	1.0	0.9	0.8	1.3	3.8	15.9	7.3	2.9	1.7	3.3
Alt 1c	Flow	1.4	1.4	1.2	1.0	0.9	0.8	1.3	3.8	16.0	7.3	2.9	1.7	3.3
Alt 8a	Flow	1.4	1.4	1.2	1.0	0.9	0.8	1.3	3.8	16.2	7.7	3.0	1.7	3.4
Alt 10a	Flow	1.4	1.4	1.2	1.0	0.9	0.8	1.3	3.8	16.1	7.7	3.0	1.7	3.4
Alt 13a	Flow	1.4	1.4	1.2	1.0	0.9	0.8	1.3	3.8	16.0	7.5	3.0	1.7	3.3
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-0.7	-0.3	0.0	0.0	-0.1
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.0	-4.3	-1.1	-0.1	0.0	-0.5
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.0	-4.2	-1.1	-0.1	0.0	-0.5
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.0	-4.0	-0.7	0.0	0.0	-0.5
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.0	-4.0	-0.7	0.0	0.0	-0.5
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.0	-4.2	-0.9	-0.1	0.0	-0.5
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-7%	-3%	-3%	0%	0%	-3%
Alt 1a	% Change	0%	-1%	0%	0%	0%	0%	0%	-21%	-21%	-13%	-4%	0%	-14%
Alt 1c	% Change	0%	-1%	0%	0%	0%	0%	0%	-21%	-21%	-13%	-4%	0%	-14%
Alt 8a	% Change	0%	-1%	0%	0%	0%	0%	0%	-21%	-20%	-9%	0%	0%	-12%
Alt 10a	% Change	0%	-1%	0%	0%	0%	0%	0%	-21%	-20%	-9%	0%	0%	-12%
Alt 13a	% Change	0%	-1%	0%	0%	0%	0%	0%	-21%	-21%	-11%	-3%	0%	-13%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		1.2	1.2	1.0	0.9	0.7	0.6	1.3	2.9	3.5	2.6	2.0	1.3	1.6
No Act	Flow	1.2	1.2	1.0	0.9	0.7	0.6	1.3	2.9	3.5	2.6	2.0	1.3	1.6
Alt 1a	Flow	1.2	1.2	1.0	0.9	0.7	0.6	1.3	2.9	3.5	2.6	2.0	1.3	1.6
Alt 1c	Flow	1.2	1.2	1.0	0.9	0.7	0.6	1.3	2.9	3.5	2.6	2.0	1.3	1.6
Alt 8a	Flow	1.2	1.2	1.0	0.9	0.7	0.6	1.3	2.9	3.5	2.6	2.0	1.3	1.6
Alt 10a	Flow	1.2	1.2	1.0	0.9	0.7	0.6	1.3	2.9	3.5	2.6	2.0	1.3	1.6
Alt 13a	Flow	1.2	1.2	1.0	0.9	0.7	0.6	1.3	2.9	3.5	2.6	2.0	1.3	1.6
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		1.6	1.7	1.4	1.2	1.0	0.9	1.3	7.9	41.0	17.8	4.6	2.1	6.9
No Act	Flow	1.6	1.7	1.4	1.2	1.0	0.9	1.3	7.7	40.8	17.3	4.5	2.1	6.8
Alt 1a	Flow	1.6	1.7	1.4	1.2	1.0	0.9	1.3	6.3	36.8	17.5	4.5	2.1	6.4
Alt 1c	Flow	1.6	1.7	1.4	1.2	1.0	0.9	1.3	6.3	37.1	17.5	4.5	2.1	6.4
Alt 8a	Flow	1.6	1.7	1.4	1.2	1.0	0.9	1.3	6.3	37.1	17.5	4.5	2.1	6.4
Alt 10a	Flow	1.6	1.7	1.4	1.2	1.0	0.9	1.3	6.3	36.9	17.5	4.5	2.1	6.4
Alt 13a	Flow	1.6	1.7	1.4	1.2	1.0	0.9	1.3	6.3	37.0	17.6	4.5	2.1	6.4
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.2	-0.6	-0.1	0.0	-0.1
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.6	-4.2	-0.3	-0.1	0.0	-0.5
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.6	-3.9	-0.3	-0.1	0.0	-0.5
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.6	-3.9	-0.3	-0.1	0.0	-0.5
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.6	-4.1	-0.3	-0.1	0.0	-0.5
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.6	-4.0	-0.2	-0.1	0.0	-0.5
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-2%	0%	-3%	-3%	0%	-1%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	-20%	-10%	-2%	-1%	0%	-7%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	-20%	-10%	-2%	-1%	0%	-7%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	-20%	-9%	-2%	-1%	0%	-7%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	-20%	-10%	-2%	-1%	0%	-7%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	-20%	-10%	-1%	-1%	0%	-7%

Notes:
The monthly percent flow change from October through April in the 45-Year Average table reflects additional diversions in two winters during the 45-year study period. In the remaining 43 years there would be no flow change from October through April.

Table H-3.21. Below Denver Water's Diversions from Middle and South Fork of Ranch Creek (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		0.1	0.0	0.0	0.1	0.1	0.0	0.0	2.7	24.7	7.9	0.8	0.0	3.0
No Act	Flow	0.1	0.0	0.0	0.1	0.1	0.0	0.0	2.1	23.3	7.4	0.7	0.0	2.8
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	16.1	5.8	0.4	0.0	1.9
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	16.3	5.9	0.4	0.0	1.9
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	16.7	6.5	0.7	0.0	2.1
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	16.7	6.5	0.7	0.0	2.1
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	16.3	6.2	0.5	0.0	2.0
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.6	-1.4	-0.5	-0.1	0.0	-0.2
Alt 1a	Flow Change	0.0	0.0	0.0	-0.1	-0.1	0.0	0.0	-2.0	-8.6	-2.1	-0.4	0.0	-1.1
Alt 1c	Flow Change	0.0	0.0	0.0	-0.1	-0.1	0.0	0.0	-2.0	-8.4	-2.0	-0.4	0.0	-1.1
Alt 8a	Flow Change	0.0	0.0	0.0	-0.1	-0.1	0.0	0.0	-2.0	-8.1	-1.4	0.0	0.0	-1.0
Alt 10a	Flow Change	0.0	0.0	0.0	-0.1	-0.1	0.0	0.0	-2.0	-8.1	-1.4	0.0	0.0	-1.0
Alt 13a	Flow Change	0.0	0.0	0.0	-0.1	-0.1	0.0	0.0	-2.0	-8.4	-1.8	-0.3	0.0	-1.1
Percent change in flow from Full Use Existing System														
No Act	% Change	-11%	-17%	17%	54%	0%	0%	0%	-22%	-6%	-6%	-14%	-33%	-7%
Alt 1a	% Change	-43%	-96%	-95%	-100%	-100%	-82%	0%	-77%	-35%	-27%	-48%	-33%	-37%
Alt 1c	% Change	-43%	-96%	-95%	-100%	-100%	-82%	0%	-77%	-34%	-25%	-50%	-43%	-36%
Alt 8a	% Change	-43%	-96%	-95%	-100%	-100%	-82%	0%	-77%	-33%	-18%	-6%	-33%	-33%
Alt 10a	% Change	-43%	-96%	-95%	-100%	-100%	-82%	0%	-77%	-33%	-18%	-6%	-33%	-32%
Alt 13a	% Change	-43%	-96%	-95%	-100%	-100%	-82%	0%	-77%	-34%	-22%	-35%	-33%	-35%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Full Use Existing System		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Full Use Existing System		0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7	59.0	22.7	3.6	0.2	7.8
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.3	58.4	21.6	2.9	0.1	7.5
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	50.3	21.8	3.2	0.1	6.6
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	50.8	22.0	3.3	0.0	6.7
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	50.9	21.8	3.2	0.1	6.7
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	50.9	21.9	3.2	0.1	6.7
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	50.9	22.1	3.2	0.1	6.7
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.4	-0.6	-1.1	-0.7	-0.1	-0.2
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.6	-8.7	-0.9	-0.4	-0.1	-1.1
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.6	-8.2	-0.7	-0.3	-0.1	-1.1
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.6	-8.0	-0.9	-0.4	-0.1	-1.1
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.6	-8.0	-0.7	-0.4	-0.1	-1.1
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.6	-8.0	-0.6	-0.4	-0.1	-1.1
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-5%	-1%	-5%	-19%	-54%	-3%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	-47%	-15%	-4%	-11%	-54%	-15%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	-47%	-14%	-3%	-9%	-74%	-14%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	-47%	-14%	-4%	-11%	-54%	-14%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	-47%	-14%	-3%	-11%	-54%	-14%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	-47%	-14%	-3%	-11%	-54%	-14%

Notes:

The monthly percent flow change from October through April in the 45-Year Average table reflects additional diversions in two winters during the 45-year study period. In the remaining 43 years there would be no flow change from October through April.

Table H-3.22. Fraser River below Crooked Creek (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		40.4	37.2	31.2	28.3	29.4	39.0	134.3	287.0	476.3	162.2	59.2	40.9	113.8
No Act	Flow	40.2	37.2	31.3	28.6	29.4	39.0	134.3	280.7	456.3	158.4	58.0	40.7	111.2
Alt 1a	Flow	40.1	36.9	30.9	27.9	28.8	38.8	134.3	265.2	387.6	139.3	55.8	40.7	102.2
Alt 1c	Flow	40.1	36.9	30.9	27.9	28.8	38.8	134.3	265.2	389.8	139.2	55.7	40.7	102.4
Alt 8a	Flow	40.1	36.9	30.9	27.9	28.8	38.8	134.3	265.2	392.1	145.9	58.4	40.7	103.3
Alt 10a	Flow	40.1	36.9	30.9	27.9	28.8	38.8	134.3	265.2	392.0	145.9	58.4	40.7	103.3
Alt 13a	Flow	40.1	36.9	30.9	27.9	28.8	38.8	134.3	265.2	389.0	142.5	56.9	40.7	102.7
Flow change from Full Use Existing System														
No Act	Flow Change	-0.2	-0.1	0.0	0.3	0.0	0.0	0.0	-6.3	-20.0	-3.8	-1.2	-0.2	-2.6
Alt 1a	Flow Change	-0.3	-0.3	-0.3	-0.5	-0.5	-0.2	0.0	-21.8	-88.7	-23.0	-3.4	-0.2	-11.6
Alt 1c	Flow Change	-0.3	-0.3	-0.3	-0.5	-0.5	-0.2	0.0	-21.8	-86.5	-23.0	-3.5	-0.2	-11.4
Alt 8a	Flow Change	-0.3	-0.3	-0.3	-0.5	-0.5	-0.2	0.0	-21.8	-84.2	-16.3	-0.7	-0.2	-10.4
Alt 10a	Flow Change	-0.3	-0.3	-0.3	-0.5	-0.5	-0.2	0.0	-21.8	-84.3	-16.3	-0.7	-0.2	-10.4
Alt 13a	Flow Change	-0.3	-0.3	-0.3	-0.5	-0.5	-0.2	0.0	-21.8	-87.3	-19.8	-2.3	-0.2	-11.1
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	1%	0%	0%	0%	-2%	-4%	-2%	-2%	0%	-2%
Alt 1a	% Change	-1%	-1%	-1%	-2%	-2%	-1%	0%	-8%	-19%	-14%	-6%	0%	-10%
Alt 1c	% Change	-1%	-1%	-1%	-2%	-2%	-1%	0%	-8%	-18%	-14%	-6%	-1%	-10%
Alt 8a	% Change	-1%	-1%	-1%	-2%	-2%	-1%	0%	-8%	-18%	-10%	-1%	0%	-9%
Alt 10a	% Change	-1%	-1%	-1%	-2%	-2%	-1%	0%	-8%	-18%	-10%	-1%	0%	-9%
Alt 13a	% Change	-1%	-1%	-1%	-2%	-2%	-1%	0%	-8%	-18%	-12%	-4%	0%	-10%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		29.6	33.1	25.9	21.7	24.6	31.9	101.5	108.4	80.4	49.6	41.3	31.1	48.3
No Act	Flow	29.6	33.1	25.9	21.7	24.6	31.9	101.5	108.4	80.5	49.6	41.3	31.1	48.3
Alt 1a	Flow	29.6	33.1	25.9	21.7	24.6	31.9	101.5	108.4	80.5	49.6	41.3	31.1	48.3
Alt 1c	Flow	29.6	33.1	25.9	21.7	24.6	31.9	101.5	108.4	80.5	49.6	41.3	31.1	48.3
Alt 8a	Flow	29.6	33.1	25.9	21.7	24.6	31.9	101.5	108.4	80.5	49.6	41.3	31.1	48.3
Alt 10a	Flow	29.6	33.1	25.9	21.7	24.6	31.9	101.5	108.4	80.5	49.6	41.3	31.1	48.3
Alt 13a	Flow	29.6	33.1	25.9	21.7	24.6	31.9	101.5	108.4	80.5	49.6	41.3	31.1	48.3
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		72.5	47.3	38.5	34.8	36.0	40.1	199.9	516.1	1,025.6	385.6	105.2	50.7	212.7
No Act	Flow	72.5	47.3	38.5	34.8	36.0	40.1	199.9	510.3	1,005.5	377.2	97.4	49.3	209.1
Alt 1a	Flow	72.5	47.3	38.5	34.8	36.0	40.1	199.9	470.2	911.6	378.9	100.5	49.2	198.3
Alt 1c	Flow	72.5	47.3	38.5	34.8	36.0	40.1	199.9	470.5	918.0	381.0	101.4	49.0	199.1
Alt 8a	Flow	72.5	47.3	38.5	34.8	36.0	40.1	199.9	470.4	916.4	379.4	100.6	49.2	198.8
Alt 10a	Flow	72.5	47.3	38.5	34.8	36.0	40.1	199.9	470.3	915.5	379.5	100.6	49.2	198.7
Alt 13a	Flow	72.5	47.3	38.5	34.8	36.0	40.1	199.9	470.2	914.9	379.3	100.5	49.2	198.6
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-5.8	-20.1	-8.4	-7.8	-1.4	-3.6
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-45.9	-114.1	-6.7	-4.7	-1.5	-14.4
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-45.6	-107.6	-4.5	-3.8	-1.6	-13.6
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-45.7	-109.3	-6.2	-4.6	-1.5	-13.9
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-45.8	-110.1	-6.0	-4.6	-1.5	-14.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-45.9	-110.7	-6.3	-4.7	-1.5	-14.1
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-1%	-2%	-2%	-7%	-3%	-2%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	-9%	-11%	-2%	-4%	-3%	-7%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	-9%	-10%	-1%	-4%	-3%	-6%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	-9%	-11%	-2%	-4%	-3%	-7%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	-9%	-11%	-2%	-4%	-3%	-7%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	-9%	-11%	-2%	-4%	-3%	-7%

Notes:
The monthly percent flow change from October through April in the 45-Year Average table reflects additional diversions in two winters during the 45-year study period. In the remaining 43 years there would be no flow change from October through April.

Table H-3.23. Fraser River at Granby Gage (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		43.0	39.6	32.6	30.9	33.0	45.7	167.4	345.3	509.8	169.3	58.5	41.5	126.4
No Act	Flow	42.9	39.6	32.6	31.2	33.0	45.7	167.4	339.1	489.8	165.5	57.4	41.3	123.8
Alt 1a	Flow	42.7	39.4	32.3	30.4	32.4	45.5	167.4	324.0	420.9	146.2	55.1	41.3	114.8
Alt 1c	Flow	42.7	39.4	32.3	30.4	32.4	45.5	167.4	324.0	423.2	146.1	55.0	41.3	115.0
Alt 8a	Flow	42.7	39.4	32.3	30.4	32.4	45.5	167.4	324.0	425.4	152.8	57.8	41.3	116.0
Alt 10a	Flow	42.7	39.4	32.3	30.4	32.4	45.5	167.4	324.0	425.3	152.9	57.8	41.3	115.9
Alt 13a	Flow	42.7	39.4	32.3	30.4	32.4	45.5	167.4	324.0	422.2	149.4	56.2	41.3	115.3
Flow change from Full Use Existing System														
No Act	Flow Change	-0.1	-0.1	0.0	0.3	0.0	0.0	0.0	-6.2	-20.0	-3.9	-1.2	-0.2	-2.6
Alt 1a	Flow Change	-0.3	-0.3	-0.3	-0.5	-0.5	-0.2	0.0	-21.3	-88.9	-23.1	-3.5	-0.2	-11.6
Alt 1c	Flow Change	-0.3	-0.3	-0.3	-0.5	-0.5	-0.2	0.0	-21.3	-86.6	-23.3	-3.5	-0.2	-11.4
Alt 8a	Flow Change	-0.3	-0.3	-0.3	-0.5	-0.5	-0.2	0.0	-21.3	-84.4	-16.5	-0.7	-0.2	-10.4
Alt 10a	Flow Change	-0.3	-0.3	-0.3	-0.5	-0.5	-0.2	0.0	-21.3	-84.5	-16.5	-0.8	-0.2	-10.4
Alt 13a	Flow Change	-0.3	-0.3	-0.3	-0.5	-0.5	-0.2	0.0	-21.3	-87.6	-19.9	-2.3	-0.2	-11.1
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	1%	0%	0%	0%	-2%	-4%	-2%	-2%	0%	-2%
Alt 1a	% Change	-1%	-1%	-1%	-2%	-2%	-1%	0%	-6%	-17%	-14%	-6%	0%	-9%
Alt 1c	% Change	-1%	-1%	-1%	-2%	-2%	-1%	0%	-6%	-17%	-14%	-6%	-1%	-9%
Alt 8a	% Change	-1%	-1%	-1%	-2%	-2%	-1%	0%	-6%	-17%	-10%	-1%	0%	-8%
Alt 10a	% Change	-1%	-1%	-1%	-2%	-2%	-1%	0%	-6%	-17%	-10%	-1%	0%	-8%
Alt 13a	% Change	-1%	-1%	-1%	-2%	-2%	-1%	0%	-6%	-17%	-12%	-4%	0%	-9%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		30.7	34.0	26.1	22.6	27.1	36.7	122.3	118.2	80.5	47.6	40.9	31.0	51.5
No Act	Flow	30.7	34.0	26.1	22.6	27.1	36.7	122.3	118.2	80.6	47.6	40.9	31.0	51.5
Alt 1a	Flow	30.7	34.0	26.1	22.6	27.1	36.7	122.3	118.2	80.6	47.6	40.9	31.0	51.5
Alt 1c	Flow	30.7	34.0	26.1	22.6	27.1	36.7	122.3	118.2	80.6	47.6	40.9	31.0	51.5
Alt 8a	Flow	30.7	34.0	26.1	22.6	27.1	36.7	122.3	118.2	80.6	47.6	40.9	31.0	51.5
Alt 10a	Flow	30.7	34.0	26.1	22.6	27.1	36.7	122.3	118.2	80.6	47.6	40.9	31.0	51.5
Alt 13a	Flow	30.7	34.0	26.1	22.6	27.1	36.7	122.3	118.2	80.6	47.6	40.9	31.0	51.5
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		79.8	52.2	40.9	39.2	41.5	46.9	254.8	636.1	1,113.0	412.1	107.4	53.7	239.8
No Act	Flow	79.8	52.2	40.9	39.2	41.5	46.9	254.8	630.4	1,092.9	403.7	99.7	52.2	236.2
Alt 1a	Flow	79.8	52.2	40.9	39.2	41.5	46.9	254.8	590.5	998.6	405.5	102.7	52.2	225.4
Alt 1c	Flow	79.8	52.2	40.9	39.2	41.5	46.9	254.8	590.8	1,005.1	407.5	103.7	52.0	226.2
Alt 8a	Flow	79.8	52.2	40.9	39.2	41.5	46.9	254.8	590.8	1,003.3	406.1	102.8	52.2	225.9
Alt 10a	Flow	79.8	52.2	40.9	39.2	41.5	46.9	254.8	590.6	1,002.5	406.2	102.8	52.2	225.8
Alt 13a	Flow	79.8	52.2	40.9	39.2	41.5	46.9	254.8	590.6	1,001.9	405.9	102.7	52.2	225.7
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-5.8	-20.1	-8.4	-7.8	-1.5	-3.6
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-45.6	-114.4	-6.6	-4.7	-1.5	-14.4
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-45.3	-107.9	-4.6	-3.7	-1.7	-13.6
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-45.4	-109.6	-6.1	-4.6	-1.5	-13.9
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-45.5	-110.5	-5.9	-4.6	-1.5	-14.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-45.6	-111.1	-6.2	-4.8	-1.5	-14.1
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-1%	-2%	-2%	-7%	-3%	-2%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	-7%	-10%	-2%	-4%	-3%	-6%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	-7%	-10%	-1%	-3%	-3%	-6%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	-7%	-10%	-1%	-4%	-3%	-6%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	-7%	-10%	-1%	-4%	-3%	-6%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	-7%	-10%	-2%	-4%	-3%	-6%

Notes:

The monthly percent flow change from October through April in the 45-Year Average table reflects additional diversions in two winters during the 45-year study period. In the remaining 43 years there would be no flow change from October through April.

Table H-3.24. Gumlick Tunnel Diversions (cfs)

Diversion Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		6.7	4.4	3.1	2.4	2.1	2.2	4.4	29.5	48.1	31.5	16.8	9.7	13.4
No Act	Flow	6.7	4.4	3.1	2.4	2.1	2.2	4.4	30.6	51.3	33.5	17.3	9.7	14.0
Alt 1a	Flow	6.9	4.6	3.2	2.6	2.3	2.2	4.4	33.0	66.0	39.3	18.1	9.8	16.0
Alt 1c	Flow	6.9	4.6	3.2	2.6	2.3	2.2	4.4	33.0	65.6	39.1	18.1	9.8	16.0
Alt 8a	Flow	6.9	4.6	3.2	2.6	2.3	2.2	4.4	33.0	64.9	36.9	17.0	9.8	15.7
Alt 10a	Flow	6.9	4.6	3.2	2.6	2.3	2.2	4.4	33.0	64.8	36.8	17.0	9.8	15.6
Alt 13a	Flow	6.9	4.6	3.2	2.6	2.3	2.2	4.4	33.0	65.6	38.1	17.7	9.8	15.9
Diversion change from Full Use Existing System														
No Act	Div. Change	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.1	3.2	2.0	0.4	0.1	0.6
Alt 1a	Div. Change	0.3	0.3	0.1	0.2	0.2	0.1	0.0	3.5	17.9	7.8	1.3	0.1	2.6
Alt 1c	Div. Change	0.3	0.3	0.1	0.2	0.2	0.1	0.0	3.5	17.5	7.7	1.3	0.1	2.6
Alt 8a	Div. Change	0.3	0.3	0.1	0.2	0.2	0.1	0.0	3.5	16.8	5.5	0.2	0.1	2.3
Alt 10a	Div. Change	0.3	0.3	0.1	0.2	0.2	0.1	0.0	3.5	16.7	5.4	0.2	0.1	2.2
Alt 13a	Div. Change	0.3	0.3	0.1	0.2	0.2	0.1	0.0	3.5	17.5	6.6	0.9	0.1	2.5
Percent change in diversion from Full Use Existing System														
No Act	% Change	1%	0%	1%	-2%	0%	0%	0%	4%	7%	6%	2%	1%	4%
Alt 1a	% Change	4%	6%	4%	7%	8%	3%	0%	12%	37%	25%	8%	1%	20%
Alt 1c	% Change	4%	6%	4%	7%	8%	3%	0%	12%	36%	24%	8%	1%	19%
Alt 8a	% Change	4%	6%	4%	7%	8%	3%	0%	12%	35%	17%	1%	1%	17%
Alt 10a	% Change	4%	6%	4%	7%	8%	3%	0%	12%	35%	17%	1%	1%	17%
Alt 13a	% Change	4%	6%	4%	7%	8%	3%	0%	12%	36%	21%	5%	1%	18%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		6.7	4.4	3.2	2.3	1.9	1.8	4.4	32.0	71.7	23.8	13.4	7.9	14.5
No Act	Flow	6.7	4.4	3.2	2.3	1.9	1.8	4.4	32.0	71.7	23.8	13.4	7.9	14.5
Alt 1a	Flow	6.7	4.4	3.2	2.3	1.9	1.8	4.4	32.0	71.7	23.8	13.4	7.9	14.5
Alt 1c	Flow	6.7	4.4	3.2	2.3	1.9	1.8	4.4	32.0	71.7	23.8	13.4	7.9	14.5
Alt 8a	Flow	6.7	4.4	3.2	2.3	1.9	1.8	4.4	32.0	71.7	23.8	13.4	7.9	14.5
Alt 10a	Flow	6.7	4.4	3.2	2.3	1.9	1.8	4.4	32.0	71.7	23.8	13.4	7.9	14.5
Alt 13a	Flow	6.7	4.4	3.2	2.3	1.9	1.8	4.4	32.0	71.7	23.8	13.4	7.9	14.5
Diversion change from Full Use Existing System														
No Act	Div. Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Div. Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Div. Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Div. Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Div. Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Div. Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent change in diversion from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		10.0	5.7	3.7	3.2	3.0	2.8	5.2	25.4	9.2	20.2	17.9	13.0	9.9
No Act	Flow	10.0	5.7	3.7	3.2	3.0	2.8	5.2	26.0	10.0	22.3	20.6	13.5	10.5
Alt 1a	Flow	10.0	5.7	3.7	3.2	3.0	2.8	5.2	31.7	22.3	22.4	19.4	13.6	11.9
Alt 1c	Flow	10.0	5.7	3.7	3.2	3.0	2.8	5.2	31.7	22.3	22.5	18.8	13.6	11.9
Alt 8a	Flow	10.0	5.7	3.7	3.2	3.0	2.8	5.2	31.7	22.3	22.8	19.4	13.6	11.9
Alt 10a	Flow	10.0	5.7	3.7	3.2	3.0	2.8	5.2	31.7	22.3	22.7	19.4	13.6	11.9
Alt 13a	Flow	10.0	5.7	3.7	3.2	3.0	2.8	5.2	31.7	22.3	22.3	19.4	13.6	11.9
Diversion change from Full Use Existing System														
No Act	Div. Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.9	2.1	2.6	0.5	0.6
Alt 1a	Div. Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2	13.1	2.3	1.4	0.6	2.0
Alt 1c	Div. Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2	13.1	2.3	0.9	0.6	1.9
Alt 8a	Div. Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2	13.1	2.7	1.4	0.6	2.0
Alt 10a	Div. Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2	13.1	2.6	1.4	0.6	2.0
Alt 13a	Div. Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2	13.1	2.2	1.4	0.6	2.0
Percent change in diversion from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	2%	9%	11%	15%	4%	6%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	24%	143%	11%	8%	4%	20%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	24%	143%	11%	5%	5%	19%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	24%	143%	13%	8%	4%	20%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	24%	143%	13%	8%	4%	20%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	24%	143%	11%	8%	4%	20%

Notes:

The monthly percent flow change from October through April in the 45-Year Average table reflects additional diversions in two winters during the 45-year study period. In the remaining 43 years there would be no flow change from October through April.

Table H-3.25. Below Denver Water's Diversion from Steelman Creek (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		0.1	0.1	0.1	0.1	0.1	0.0	0.0	1.7	19.5	8.4	0.8	0.1	2.6
No Act	Flow	0.1	0.1	0.0	0.1	0.1	0.0	0.0	1.4	18.6	7.9	0.7	0.0	2.4
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	15.4	6.6	0.5	0.0	1.9
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	15.4	6.6	0.5	0.0	1.9
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	15.6	7.1	0.7	0.0	2.0
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	15.6	7.2	0.7	0.0	2.0
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	15.4	6.8	0.6	0.0	2.0
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-0.8	-0.5	-0.1	0.0	-0.1
Alt 1a	Flow Change	-0.1	-0.1	0.0	-0.1	-0.1	0.0	0.0	-0.8	-4.1	-1.9	-0.3	0.0	-0.6
Alt 1c	Flow Change	-0.1	-0.1	0.0	-0.1	-0.1	0.0	0.0	-0.8	-4.0	-1.8	-0.3	0.0	-0.6
Alt 8a	Flow Change	-0.1	-0.1	0.0	-0.1	-0.1	0.0	0.0	-0.8	-3.9	-1.3	0.0	0.0	-0.5
Alt 10a	Flow Change	-0.1	-0.1	0.0	-0.1	-0.1	0.0	0.0	-0.8	-3.9	-1.3	0.0	0.0	-0.5
Alt 13a	Flow Change	-0.1	-0.1	0.0	-0.1	-0.1	0.0	0.0	-0.8	-4.0	-1.6	-0.2	0.0	-0.6
Percent change in flow from Full Use Existing System														
No Act	% Change	-35%	-2%	-19%	29%	0%	0%	0%	-15%	-4%	-6%	-13%	-21%	-6%
Alt 1a	% Change	-100%	-100%	-98%	-95%	-94%	-91%	0%	-51%	-21%	-22%	-40%	-50%	-25%
Alt 1c	% Change	-100%	-100%	-98%	-95%	-94%	-91%	0%	-51%	-21%	-22%	-39%	-52%	-24%
Alt 8a	% Change	-100%	-100%	-98%	-95%	-94%	-91%	0%	-51%	-20%	-16%	-5%	-50%	-21%
Alt 10a	% Change	-100%	-100%	-98%	-95%	-94%	-91%	0%	-51%	-20%	-15%	-5%	-50%	-21%
Alt 13a	% Change	-100%	-100%	-98%	-95%	-94%	-91%	0%	-51%	-21%	-19%	-28%	-50%	-23%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.7	0.0	0.0	0.1
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.7	0.0	0.0	0.1
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.7	0.0	0.0	0.1
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.7	0.0	0.0	0.1
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.7	0.0	0.0	0.1
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.7	0.0	0.0	0.1
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.7	0.0	0.0	0.1
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9	35.2	21.7	4.0	0.3	5.5
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	35.0	21.2	3.5	0.2	5.4
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	32.4	21.4	3.8	0.1	5.1
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	32.4	21.4	4.0	0.1	5.1
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	32.4	21.3	3.8	0.1	5.1
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	32.4	21.3	3.8	0.1	5.1
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	32.4	21.2	3.8	0.1	5.1
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.2	-0.5	-0.5	-0.1	-0.1
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.8	-2.8	-0.3	-0.2	-0.1	-0.4
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.8	-2.8	-0.2	0.0	-0.1	-0.4
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.8	-2.8	-0.4	-0.2	-0.1	-0.4
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.8	-2.8	-0.4	-0.2	-0.1	-0.4
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.8	-2.8	-0.4	-0.2	-0.1	-0.4
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-5%	-1%	-2%	-12%	-25%	-2%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	-37%	-8%	-1%	-5%	-42%	-8%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	-37%	-8%	-1%	0%	-46%	-7%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	-37%	-8%	-2%	-5%	-42%	-8%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	-37%	-8%	-2%	-5%	-42%	-8%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	-37%	-8%	-2%	-5%	-42%	-8%

Notes:
The monthly percent flow change from October through April in the 45-Year Average table reflects additional diversions in two winters during the 45-year study period. In the remaining 43 years there would be no flow change from October through April.

Table H-3.26. Below Denver Water's Diversion from Bobtail Creek (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		0.1	0.1	0.0	0.0	0.0	0.0	0.0	2.4	35.0	14.4	1.4	0.1	4.5
No Act	Flow	0.0	0.1	0.0	0.0	0.0	0.0	0.0	1.9	33.6	13.5	1.2	0.0	4.2
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	26.6	10.9	0.8	0.0	3.3
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	26.8	11.0	0.8	0.0	3.3
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	27.2	12.0	1.3	0.0	3.5
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	27.3	12.1	1.3	0.0	3.5
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	26.8	11.5	1.0	0.0	3.4
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.5	-1.4	-0.9	-0.2	-0.1	-0.3
Alt 1a	Flow Change	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	-1.5	-8.3	-3.4	-0.6	-0.1	-1.2
Alt 1c	Flow Change	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	-1.5	-8.2	-3.4	-0.6	-0.1	-1.2
Alt 8a	Flow Change	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	-1.5	-7.7	-2.4	-0.1	-0.1	-1.0
Alt 10a	Flow Change	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	-1.5	-7.7	-2.3	-0.1	-0.1	-1.0
Alt 13a	Flow Change	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	-1.5	-8.1	-2.9	-0.4	-0.1	-1.1
Percent change in flow from Full Use Existing System														
No Act	% Change	-32%	0%	-4%	36%	0%	0%	-2%	-21%	-4%	-6%	-15%	-63%	-6%
Alt 1a	% Change	-100%	-100%	-100%	-94%	-91%	-86%	0%	-64%	-24%	-24%	-42%	-67%	-27%
Alt 1c	% Change	-100%	-100%	-100%	-94%	-91%	-86%	0%	-64%	-23%	-24%	-42%	-71%	-26%
Alt 8a	% Change	-100%	-100%	-100%	-94%	-91%	-86%	0%	-64%	-22%	-16%	-8%	-67%	-22%
Alt 10a	% Change	-100%	-100%	-100%	-94%	-91%	-86%	0%	-64%	-22%	-16%	-8%	-67%	-22%
Alt 13a	% Change	-100%	-100%	-100%	-94%	-91%	-86%	0%	-64%	-23%	-20%	-29%	-67%	-25%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.0	0.0	0.0	0.1
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.0	0.0	0.0	0.1
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.0	0.0	0.0	0.1
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.0	0.0	0.0	0.1
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.0	0.0	0.0	0.1
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.0	0.0	0.0	0.1
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.0	0.0	0.0	0.1
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-100%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-100%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-100%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-100%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7	72.6	36.1	7.9	0.6	10.2
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	72.2	34.9	6.5	0.2	9.9
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	66.3	34.9	7.0	0.2	9.2
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	66.3	35.0	7.2	0.1	9.2
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	66.3	34.7	6.9	0.2	9.2
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	66.3	34.8	6.9	0.2	9.2
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	66.3	35.0	7.0	0.2	9.2
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.4	-1.1	-1.5	-0.4	-0.3
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-2.4	-6.3	-1.2	-1.0	-0.4	-0.9
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-2.4	-6.3	-1.1	-0.7	-0.4	-0.9
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-2.4	-6.3	-1.3	-1.0	-0.4	-1.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-2.4	-6.3	-1.3	-1.0	-0.4	-0.9
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-2.4	-6.3	-1.0	-1.0	-0.4	-0.9
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-3%	-1%	-3%	-18%	-69%	-3%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	-51%	-9%	-3%	-12%	-69%	-9%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	-51%	-9%	-3%	-9%	-73%	-9%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	-51%	-9%	-4%	-12%	-69%	-9%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	-51%	-9%	-4%	-12%	-69%	-9%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	-51%	-9%	-3%	-12%	-69%	-9%

Notes:
The monthly percent flow change from October through April in the 45-Year Average table reflects additional diversions in two winters during the 45-year study period. In the remaining 43 years there would be no flow change from October through April.

Table H-3.27. Below Denver Water's Diversion from Jones Creek (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.9	10.7	4.7	0.4	0.0	1.4
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	10.3	4.4	0.4	0.0	1.3
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	8.8	3.7	0.3	0.0	1.1
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	8.8	3.7	0.3	0.0	1.1
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	8.9	4.0	0.4	0.0	1.1
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	8.9	4.0	0.4	0.0	1.2
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	8.8	3.8	0.3	0.0	1.1
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.4	-0.3	-0.1	0.0	-0.1
Alt 1a	Flow Change	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	-0.4	-2.0	-1.0	-0.2	0.0	-0.3
Alt 1c	Flow Change	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	-0.4	-1.9	-1.0	-0.2	0.0	-0.3
Alt 8a	Flow Change	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	-0.4	-1.9	-0.7	0.0	0.0	-0.3
Alt 10a	Flow Change	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	-0.4	-1.9	-0.7	0.0	0.0	-0.3
Alt 13a	Flow Change	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	-0.4	-1.9	-0.9	-0.1	0.0	-0.3
Percent change in flow from Full Use Existing System														
No Act	% Change	-33%	-2%	-23%	27%	0%	0%	0%	-13%	-4%	-7%	-12%	-13%	-5%
Alt 1a	% Change	-92%	-100%	-91%	-93%	-92%	-75%	0%	-47%	-18%	-22%	-39%	-44%	-22%
Alt 1c	% Change	-92%	-100%	-91%	-93%	-92%	-75%	0%	-47%	-18%	-21%	-39%	-46%	-22%
Alt 8a	% Change	-92%	-100%	-91%	-93%	-92%	-75%	0%	-47%	-17%	-15%	-5%	-44%	-19%
Alt 10a	% Change	-92%	-100%	-91%	-93%	-92%	-75%	0%	-47%	-17%	-15%	-5%	-44%	-19%
Alt 13a	% Change	-92%	-100%	-91%	-93%	-92%	-75%	0%	-47%	-18%	-18%	-27%	-44%	-21%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.5	0.0	0.0	0.1
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.5	0.0	0.0	0.1
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.5	0.0	0.0	0.1
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.5	0.0	0.0	0.1
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.5	0.0	0.0	0.1
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.5	0.0	0.0	0.1
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.5	0.0	0.0	0.1
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	18.9	11.8	2.1	0.1	3.0
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	18.7	11.5	1.9	0.1	2.9
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	17.4	11.7	2.0	0.1	2.7
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	17.4	11.6	2.1	0.1	2.7
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	17.4	11.6	2.0	0.1	2.7
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	17.4	11.6	2.0	0.1	2.7
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	17.4	11.6	2.0	0.1	2.7
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.2	-0.3	0.0	-0.1
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.9	-1.5	-0.1	-0.1	-0.1	-0.2
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.9	-1.5	-0.1	0.0	-0.1	-0.2
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.9	-1.5	-0.1	-0.1	-0.1	-0.2
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.9	-1.5	-0.1	-0.1	-0.1	-0.2
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.9	-1.5	-0.2	-0.1	-0.1	-0.2
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-4%	-1%	-2%	-12%	-22%	-2%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	-34%	-8%	-1%	-4%	-46%	-7%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	-34%	-8%	-1%	-1%	-50%	-7%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	-34%	-8%	-1%	-4%	-46%	-7%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	-34%	-8%	-1%	-4%	-46%	-7%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	-34%	-8%	-2%	-4%	-46%	-8%

Notes:

The monthly percent flow change from October through April in the 45-Year Average table reflects additional diversions in two winters during the 45-year study period. In the remaining 43 years there would be no flow change from October through April.

Table H-3.28. Below Denver Water's Diversion from McQueary Creek (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		0.1	0.1	0.0	0.0	0.0	0.0	0.0	1.1	12.7	5.7	0.5	0.0	1.7
No Act	Flow	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.9	12.1	5.4	0.5	0.0	1.6
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	9.2	4.3	0.3	0.0	1.2
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	9.3	4.3	0.3	0.0	1.2
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	9.3	4.7	0.5	0.0	1.3
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	9.4	4.7	0.5	0.0	1.3
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	9.2	4.5	0.4	0.0	1.2
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.6	-0.3	-0.1	0.0	-0.1
Alt 1a	Flow Change	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	-0.7	-3.5	-1.5	-0.2	0.0	-0.5
Alt 1c	Flow Change	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	-0.7	-3.4	-1.4	-0.2	0.0	-0.5
Alt 8a	Flow Change	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	-0.7	-3.3	-1.1	0.0	0.0	-0.4
Alt 10a	Flow Change	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	-0.7	-3.3	-1.1	0.0	0.0	-0.4
Alt 13a	Flow Change	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	-0.7	-3.4	-1.3	-0.1	0.0	-0.5
Percent change in flow from Full Use Existing System														
No Act	% Change	-33%	0%	-3%	27%	0%	0%	4%	-20%	-4%	-6%	-12%	-14%	-6%
Alt 1a	% Change	-94%	-100%	-84%	-93%	-91%	-90%	0%	-61%	-28%	-26%	-39%	-15%	-30%
Alt 1c	% Change	-94%	-100%	-84%	-93%	-91%	-90%	0%	-61%	-27%	-25%	-40%	-18%	-29%
Alt 8a	% Change	-94%	-100%	-84%	-93%	-91%	-90%	0%	-61%	-26%	-19%	-4%	-15%	-26%
Alt 10a	% Change	-94%	-100%	-84%	-93%	-91%	-90%	0%	-61%	-26%	-18%	-4%	-15%	-26%
Alt 13a	% Change	-94%	-100%	-84%	-93%	-91%	-90%	0%	-61%	-27%	-22%	-25%	-15%	-28%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.1
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.1
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.1
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.1
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.1
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.1
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.1
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	25.2	15.5	2.8	0.1	3.9
No Act	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	25.1	15.2	2.4	0.1	3.8
Alt 1a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	22.7	14.8	2.7	0.1	3.5
Alt 1c	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	22.7	14.6	2.7	0.1	3.5
Alt 8a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	22.7	14.7	2.7	0.1	3.5
Alt 10a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	22.7	14.7	2.7	0.1	3.5
Alt 13a	Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	22.7	15.0	2.7	0.1	3.5
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.2	-0.4	0.0	-0.1
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.2	-2.5	-0.7	-0.2	0.0	-0.4
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.2	-2.5	-0.8	-0.1	0.0	-0.4
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.2	-2.5	-0.8	-0.2	0.0	-0.4
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.2	-2.5	-0.8	-0.2	0.0	-0.4
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.2	-2.5	-0.5	-0.2	0.0	-0.4
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-3%	-1%	-2%	-15%	-23%	-2%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	-36%	-10%	-4%	-6%	-23%	-10%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	-36%	-10%	-5%	-4%	-28%	-10%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	-36%	-10%	-5%	-6%	-23%	-10%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	-36%	-10%	-5%	-6%	-23%	-10%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	-36%	-10%	-3%	-6%	-23%	-9%

Notes:

The monthly percent flow change from October through April in the 45-Year Average table reflects additional diversions in two winters during the 45-year study period. In the remaining 43 years there would be no flow change from October through April.

Table H-3.29. Williams Fork River below Steelman Creek Gage (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		1.0	0.9	0.6	0.6	0.6	0.5	0.7	9.4	87.3	37.6	4.6	1.1	12.1
No Act	Flow	0.9	0.9	0.6	0.6	0.6	0.5	0.7	8.3	84.1	35.6	4.1	1.0	11.5
Alt 1a	Flow	0.8	0.6	0.5	0.4	0.4	0.4	0.7	5.9	69.3	29.8	3.3	1.0	9.4
Alt 1c	Flow	0.8	0.6	0.5	0.4	0.4	0.4	0.7	5.9	69.7	29.9	3.3	1.0	9.5
Alt 8a	Flow	0.8	0.6	0.5	0.4	0.4	0.4	0.7	5.9	70.5	32.1	4.4	1.0	9.8
Alt 10a	Flow	0.8	0.6	0.5	0.4	0.4	0.4	0.7	5.9	70.6	32.2	4.4	1.0	9.8
Alt 13a	Flow	0.8	0.6	0.5	0.4	0.4	0.4	0.7	5.9	69.8	30.9	3.7	1.0	9.6
Flow change from Full Use Existing System														
No Act	Flow Change	-0.1	0.0	0.0	0.1	0.0	0.0	0.0	-1.1	-3.2	-2.0	-0.4	-0.1	-0.6
Alt 1a	Flow Change	-0.3	-0.3	-0.1	-0.2	-0.2	-0.1	0.0	-3.5	-17.9	-7.8	-1.3	-0.1	-2.6
Alt 1c	Flow Change	-0.3	-0.3	-0.1	-0.2	-0.2	-0.1	0.0	-3.5	-17.5	-7.7	-1.3	-0.1	-2.6
Alt 8a	Flow Change	-0.3	-0.3	-0.1	-0.2	-0.2	-0.1	0.0	-3.5	-16.8	-5.5	-0.2	-0.1	-2.3
Alt 10a	Flow Change	-0.3	-0.3	-0.1	-0.2	-0.2	-0.1	0.0	-3.5	-16.7	-5.4	-0.2	-0.1	-2.2
Alt 13a	Flow Change	-0.3	-0.3	-0.1	-0.2	-0.2	-0.1	0.0	-3.5	-17.5	-6.6	-0.9	-0.1	-2.5
Percent change in flow from Full Use Existing System														
No Act	% Change	-9%	-1%	-3%	9%	0%	0%	0%	-12%	-4%	-5%	-9%	-7%	-5%
Alt 1a	% Change	-25%	-31%	-20%	-26%	-30%	-15%	0%	-37%	-21%	-21%	-28%	-9%	-22%
Alt 1c	% Change	-25%	-31%	-20%	-26%	-30%	-15%	0%	-37%	-20%	-20%	-28%	-10%	-21%
Alt 8a	% Change	-25%	-31%	-20%	-26%	-30%	-15%	0%	-37%	-19%	-15%	-4%	-9%	-19%
Alt 10a	% Change	-25%	-31%	-20%	-26%	-30%	-15%	0%	-37%	-19%	-14%	-4%	-9%	-19%
Alt 13a	% Change	-25%	-31%	-20%	-26%	-30%	-15%	0%	-37%	-20%	-18%	-19%	-9%	-20%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		0.7	0.5	0.4	0.4	0.4	0.4	0.8	1.9	4.2	4.2	0.6	0.4	1.2
No Act	Flow	0.7	0.5	0.4	0.4	0.4	0.4	0.8	1.9	4.2	4.2	0.6	0.4	1.2
Alt 1a	Flow	0.7	0.5	0.4	0.4	0.4	0.4	0.8	1.9	4.2	4.2	0.6	0.4	1.2
Alt 1c	Flow	0.7	0.5	0.4	0.4	0.4	0.4	0.8	1.9	4.2	4.2	0.6	0.4	1.2
Alt 8a	Flow	0.7	0.5	0.4	0.4	0.4	0.4	0.8	1.9	4.2	4.2	0.6	0.4	1.2
Alt 10a	Flow	0.7	0.5	0.4	0.4	0.4	0.4	0.8	1.9	4.2	4.2	0.6	0.4	1.2
Alt 13a	Flow	0.7	0.5	0.4	0.4	0.4	0.4	0.8	1.9	4.2	4.2	0.6	0.4	1.2
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		1.1	0.8	0.6	0.5	0.5	0.4	0.9	20.0	165.6	92.8	19.4	2.3	25.4
No Act	Flow	1.1	0.8	0.6	0.5	0.5	0.4	0.9	19.4	164.7	90.7	16.8	1.8	24.8
Alt 1a	Flow	1.1	0.8	0.6	0.5	0.5	0.4	0.9	13.7	152.5	90.6	18.0	1.7	23.4
Alt 1c	Flow	1.1	0.8	0.6	0.5	0.5	0.4	0.9	13.7	152.5	90.5	18.5	1.6	23.5
Alt 8a	Flow	1.1	0.8	0.6	0.5	0.5	0.4	0.9	13.7	152.5	90.2	17.9	1.7	23.4
Alt 10a	Flow	1.1	0.8	0.6	0.5	0.5	0.4	0.9	13.7	152.5	90.3	17.9	1.7	23.4
Alt 13a	Flow	1.1	0.8	0.6	0.5	0.5	0.4	0.9	13.7	152.5	90.7	18.0	1.7	23.5
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.6	-0.9	-2.1	-2.6	-0.5	-0.6
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-6.2	-13.1	-2.3	-1.4	-0.6	-2.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-6.2	-13.1	-2.3	-0.8	-0.6	-1.9
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-6.2	-13.1	-2.7	-1.4	-0.6	-2.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-6.2	-13.1	-2.6	-1.4	-0.6	-2.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-6.2	-13.1	-2.1	-1.4	-0.6	-2.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-3%	-1%	-2%	-14%	-22%	-2%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	-31%	-8%	-2%	-7%	-26%	-8%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	-31%	-8%	-2%	-4%	-28%	-8%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	-31%	-8%	-3%	-7%	-26%	-8%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	-31%	-8%	-3%	-7%	-26%	-8%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	-31%	-8%	-2%	-7%	-26%	-8%

Notes:

The monthly percent flow change from October through April in the 45-Year Average table reflects additional diversions in two winters during the 45-year study period. In the remaining 43 years there would be no flow change from October through April.

Table H-3.30. Williams Fork Reservoir Outflow (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		153.3	123.4	89.1	97.0	79.7	91.5	130.3	103.0	152.5	196.2	196.7	186.1	133.2
No Act	Flow	154.8	122.3	89.7	99.6	78.6	96.9	130.2	98.7	142.0	194.9	198.0	189.4	132.9
Alt 1a	Flow	153.8	120.7	88.4	98.6	77.6	96.7	130.3	103.3	132.6	183.2	197.4	187.9	130.9
Alt 1c	Flow	153.9	120.8	88.7	98.7	77.6	96.7	130.3	103.3	132.2	183.4	197.4	188.3	130.9
Alt 8a	Flow	153.6	121.2	88.3	98.4	77.6	96.6	130.3	103.3	133.5	186.9	197.5	187.8	131.2
Alt 10a	Flow	153.6	121.2	88.3	98.4	77.6	96.6	130.3	103.3	133.6	187.2	197.6	187.7	131.3
Alt 13a	Flow	153.6	120.6	88.3	98.3	77.6	96.4	130.3	98.6	135.8	186.7	198.2	187.8	131.0
Flow change from Full Use Existing System														
No Act	Flow Change	1.6	-1.1	0.6	2.6	-1.1	5.3	-0.1	-4.3	-10.5	-1.3	1.3	3.3	-0.3
Alt 1a	Flow Change	0.5	-2.7	-0.8	1.5	-2.1	5.1	0.0	0.3	-19.9	-13.0	0.7	1.8	-2.4
Alt 1c	Flow Change	0.6	-2.7	-0.4	1.7	-2.1	5.1	0.0	0.3	-20.3	-12.9	0.7	2.2	-2.3
Alt 8a	Flow Change	0.3	-2.2	-0.9	1.3	-2.1	5.1	0.0	0.3	-19.0	-9.3	0.8	1.6	-2.0
Alt 10a	Flow Change	0.3	-2.2	-0.9	1.3	-2.1	5.1	0.0	0.3	-18.9	-9.1	0.8	1.6	-2.0
Alt 13a	Flow Change	0.3	-2.8	-0.8	1.3	-2.1	4.9	0.0	-4.4	-16.7	-9.5	1.5	1.6	-2.2
Percent change in flow from Full Use Existing System														
No Act	% Change	1%	-1%	1%	3%	-1%	6%	0%	-4%	-7%	-1%	1%	2%	0%
Alt 1a	% Change	0%	-2%	-1%	2%	-3%	6%	0%	0%	-13%	-7%	0%	1%	-2%
Alt 1c	% Change	0%	-2%	0%	2%	-3%	6%	0%	0%	-13%	-7%	0%	1%	-2%
Alt 8a	% Change	0%	-2%	-1%	1%	-3%	6%	0%	0%	-12%	-5%	0%	1%	-2%
Alt 10a	% Change	0%	-2%	-1%	1%	-3%	6%	0%	0%	-12%	-5%	0%	1%	-1%
Alt 13a	% Change	0%	-2%	-1%	1%	-3%	5%	0%	-4%	-11%	-5%	1%	1%	-2%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		152.3	110.8	75.8	66.3	55.0	56.4	68.9	24.0	50.9	166.6	239.3	248.0	109.5
No Act	Flow	152.3	110.8	75.8	66.3	55.0	56.4	68.9	24.0	50.9	166.6	240.5	248.0	109.6
Alt 1a	Flow	152.3	110.8	75.8	66.3	55.0	56.4	68.9	24.0	50.9	165.0	240.1	247.9	109.4
Alt 1c	Flow	152.3	110.8	75.8	66.3	55.0	56.4	68.9	24.0	50.9	165.8	240.1	247.9	109.5
Alt 8a	Flow	152.3	110.8	75.8	66.3	55.0	56.4	68.9	24.0	50.9	165.0	240.0	248.0	109.4
Alt 10a	Flow	152.3	110.8	75.8	66.3	55.0	56.4	68.9	24.0	50.9	165.0	240.0	248.0	109.4
Alt 13a	Flow	152.3	110.8	75.8	66.3	55.0	56.4	68.9	24.0	50.9	165.0	240.1	247.9	109.4
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.1
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.6	0.8	0.0	-0.1
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.8	0.8	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.6	0.8	0.0	-0.1
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.6	0.8	0.0	-0.1
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.6	0.8	0.0	-0.1
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		137.3	127.5	113.7	107.4	89.7	172.8	253.6	185.1	485.7	478.1	188.8	160.1	208.3
No Act	Flow	146.7	131.7	116.8	108.2	87.8	174.0	253.6	185.1	455.0	476.0	186.2	160.2	206.8
Alt 1a	Flow	146.8	128.9	109.4	102.7	84.9	173.5	253.1	185.1	447.5	472.9	186.2	160.7	204.3
Alt 1c	Flow	146.8	129.0	111.6	103.5	84.9	173.5	253.0	185.1	444.4	472.9	186.8	160.4	204.3
Alt 8a	Flow	146.8	128.6	108.6	102.8	84.9	173.5	253.1	185.1	449.0	472.5	186.2	160.5	204.3
Alt 10a	Flow	146.8	128.7	108.5	102.8	84.9	173.5	253.1	185.1	449.0	472.6	186.2	160.5	204.3
Alt 13a	Flow	146.8	128.5	108.6	102.8	84.9	173.5	253.0	185.1	449.0	473.1	186.2	160.4	204.3
Flow change from Full Use Existing System														
No Act	Flow Change	9.4	4.3	3.2	0.9	-1.9	1.1	0.0	0.0	-30.7	-2.1	-2.6	0.1	-1.5
Alt 1a	Flow Change	9.5	1.4	-4.2	-4.7	-4.8	0.7	-0.6	0.0	-38.2	-5.2	-2.6	0.6	-4.0
Alt 1c	Flow Change	9.5	1.5	-2.1	-3.8	-4.8	0.7	-0.6	0.0	-41.3	-5.2	-2.1	0.3	-4.0
Alt 8a	Flow Change	9.5	1.1	-5.1	-4.6	-4.8	0.6	-0.6	0.0	-36.7	-5.6	-2.6	0.4	-4.0
Alt 10a	Flow Change	9.5	1.2	-5.1	-4.6	-4.8	0.6	-0.6	0.0	-36.7	-5.5	-2.6	0.4	-4.0
Alt 13a	Flow Change	9.5	1.1	-5.1	-4.6	-4.8	0.6	-0.6	0.0	-36.7	-5.1	-2.6	0.4	-4.0
Percent change in flow from Full Use Existing System														
No Act	% Change	7%	3%	3%	1%	-2%	1%	0%	0%	-6%	0%	-1%	0%	-1%
Alt 1a	% Change	7%	1%	-4%	-4%	-5%	0%	0%	0%	-8%	-1%	-1%	0%	-2%
Alt 1c	% Change	7%	1%	-2%	-4%	-5%	0%	0%	0%	-9%	-1%	-1%	0%	-2%
Alt 8a	% Change	7%	1%	-4%	-4%	-5%	0%	0%	0%	-8%	-1%	-1%	0%	-2%
Alt 10a	% Change	7%	1%	-5%	-4%	-5%	0%	0%	0%	-8%	-1%	-1%	0%	-2%
Alt 13a	% Change	7%	1%	-4%	-4%	-5%	0%	0%	0%	-8%	-1%	-1%	0%	-2%

Table H-3.31. Colorado River below Windy Gap Diversion (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		95.4	86.5	75.9	71.1	73.1	87.9	181.3	300.7	637.1	376.1	149.2	95.6	185.8
No Act	Flow	94.9	85.5	75.4	71.0	72.9	87.7	181.3	297.3	618.0	372.3	148.7	95.3	183.4
Alt 1a	Flow	94.4	85.1	75.1	70.2	72.2	87.3	179.7	284.9	554.5	355.0	146.0	93.8	174.8
Alt 1c	Flow	94.4	85.1	75.1	70.2	72.2	87.3	179.6	284.8	556.7	354.8	146.0	93.7	175.0
Alt 8a	Flow	94.4	85.1	75.1	70.2	72.2	87.4	180.4	285.8	559.7	358.9	148.8	94.5	176.0
Alt 10a	Flow	94.4	85.1	75.1	70.2	72.2	87.4	180.4	285.7	559.5	359.0	148.8	94.5	176.0
Alt 13a	Flow	94.4	85.1	75.1	70.2	72.2	87.3	180.1	285.2	556.6	355.9	147.7	94.3	175.3
Flow change from Full Use Existing System														
No Act	Flow Change	-0.4	-1.0	-0.5	0.0	-0.2	-0.2	-0.1	-3.4	-19.1	-3.8	-0.5	-0.4	-2.5
Alt 1a	Flow Change	-1.0	-1.4	-0.8	-0.8	-0.9	-0.6	-1.6	-15.8	-82.6	-21.2	-3.2	-1.8	-11.0
Alt 1c	Flow Change	-1.0	-1.4	-0.8	-0.8	-0.9	-0.6	-1.7	-16.0	-80.4	-21.3	-3.2	-1.9	-10.8
Alt 8a	Flow Change	-1.0	-1.4	-0.8	-0.8	-0.9	-0.5	-0.9	-15.0	-77.4	-17.2	-0.4	-1.2	-9.8
Alt 10a	Flow Change	-1.0	-1.4	-0.8	-0.8	-0.9	-0.5	-0.9	-15.0	-77.6	-17.2	-0.4	-1.2	-9.8
Alt 13a	Flow Change	-1.0	-1.4	-0.8	-0.8	-0.9	-0.6	-1.3	-15.6	-80.5	-20.2	-1.5	-1.3	-10.5
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	-1%	-1%	0%	0%	0%	0%	-1%	-3%	-1%	0%	0%	-1%
Alt 1a	% Change	-1%	-2%	-1%	-1%	-1%	-1%	-1%	-5%	-13%	-6%	-2%	-2%	-6%
Alt 1c	% Change	-1%	-2%	-1%	-1%	-1%	-1%	-1%	-5%	-13%	-6%	-2%	-2%	-6%
Alt 8a	% Change	-1%	-2%	-1%	-1%	-1%	-1%	0%	-5%	-12%	-5%	0%	-1%	-5%
Alt 10a	% Change	-1%	-2%	-1%	-1%	-1%	-1%	0%	-5%	-12%	-5%	0%	-1%	-5%
Alt 13a	% Change	-1%	-2%	-1%	-1%	-1%	-1%	-1%	-5%	-13%	-5%	-1%	-1%	-6%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		77.3	77.6	63.4	57.4	64.7	76.2	174.5	132.8	138.8	119.9	97.6	68.2	95.7
No Act	Flow	77.3	77.6	63.4	57.4	64.7	76.2	174.5	132.8	138.8	119.9	97.6	68.2	95.7
Alt 1a	Flow	77.3	77.6	63.4	57.4	64.7	76.2	174.5	132.8	138.8	119.9	97.6	68.2	95.7
Alt 1c	Flow	77.3	77.6	63.4	57.4	64.7	76.2	174.5	132.8	138.8	119.9	97.6	68.2	95.7
Alt 8a	Flow	77.3	77.6	63.4	57.4	64.7	76.2	174.5	132.8	138.8	119.9	97.6	68.2	95.7
Alt 10a	Flow	77.3	77.6	63.4	57.4	64.7	76.2	174.5	132.8	138.8	119.9	97.6	68.2	95.7
Alt 13a	Flow	77.3	77.6	63.4	57.4	64.7	76.2	174.5	132.8	138.8	119.9	97.6	68.2	95.7
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		155.0	113.1	94.5	84.2	85.8	92.4	229.8	955.1	2,430.0	1,442.8	368.7	142.1	516.1
No Act	Flow	154.8	110.0	91.9	84.2	85.8	92.4	229.8	947.0	2,381.1	1,430.1	361.2	140.3	509.0
Alt 1a	Flow	154.8	108.2	91.9	84.2	85.8	92.4	229.8	907.2	2,266.7	1,414.2	364.2	140.3	495.0
Alt 1c	Flow	154.8	108.2	91.9	84.2	85.8	92.4	229.8	907.5	2,273.3	1,415.4	365.2	140.1	495.7
Alt 8a	Flow	154.8	108.2	91.9	84.2	85.8	92.4	229.8	907.4	2,284.7	1,428.4	364.3	140.3	497.7
Alt 10a	Flow	154.8	108.2	91.9	84.2	85.8	92.4	229.8	907.3	2,283.9	1,428.8	364.3	140.3	497.6
Alt 13a	Flow	154.8	108.2	91.9	84.2	85.8	92.4	229.8	907.2	2,279.6	1,421.6	364.2	140.3	496.7
Flow change from Full Use Existing System														
No Act	Flow Change	-0.1	-3.1	-2.5	0.0	0.0	0.0	0.0	-8.1	-48.9	-12.7	-7.5	-1.8	-7.1
Alt 1a	Flow Change	-0.2	-4.9	-2.5	0.0	0.0	0.0	0.0	-48.0	-163.3	-28.5	-4.5	-1.8	-21.1
Alt 1c	Flow Change	-0.2	-4.9	-2.5	0.0	0.0	0.0	0.0	-47.7	-156.7	-27.4	-3.5	-2.0	-20.4
Alt 8a	Flow Change	-0.2	-4.9	-2.5	0.0	0.0	0.0	0.0	-47.7	-145.3	-14.4	-4.4	-1.8	-18.4
Alt 10a	Flow Change	-0.2	-4.9	-2.5	0.0	0.0	0.0	0.0	-47.9	-146.1	-14.0	-4.4	-1.8	-18.5
Alt 13a	Flow Change	-0.2	-4.9	-2.5	0.0	0.0	0.0	0.0	-47.9	-150.4	-21.2	-4.5	-1.8	-19.4
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	-3%	-3%	0%	0%	0%	0%	-1%	-2%	-1%	-2%	-1%	-1%
Alt 1a	% Change	0%	-4%	-3%	0%	0%	0%	0%	-5%	-7%	-2%	-1%	-1%	-4%
Alt 1c	% Change	0%	-4%	-3%	0%	0%	0%	0%	-5%	-6%	-2%	-1%	-1%	-4%
Alt 8a	% Change	0%	-4%	-3%	0%	0%	0%	0%	-5%	-6%	-1%	-1%	-1%	-4%
Alt 10a	% Change	0%	-4%	-3%	0%	0%	0%	0%	-5%	-6%	-1%	-1%	-1%	-4%
Alt 13a	% Change	0%	-4%	-3%	0%	0%	0%	0%	-5%	-6%	-1%	-1%	-1%	-4%

Table H-3.32. Colorado River below Confluence with Williams Fork River (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		268.8	233.2	186.0	189.8	175.5	207.2	375.8	485.2	831.8	588.5	354.0	286.7	348.5
No Act	Flow	269.9	231.2	186.1	192.3	174.2	212.3	375.6	477.7	802.2	583.1	354.8	289.6	345.8
Alt 1a	Flow	268.3	229.2	184.5	190.5	172.5	211.7	374.1	470.3	729.1	553.9	351.5	286.6	335.2
Alt 1c	Flow	268.4	229.2	184.8	190.6	172.5	211.7	374.1	470.2	730.9	553.9	351.5	286.9	335.4
Alt 8a	Flow	268.1	229.6	184.4	190.3	172.5	211.7	374.9	471.2	735.1	561.6	354.3	287.1	336.7
Alt 10a	Flow	268.2	229.6	184.4	190.3	172.5	211.7	374.9	471.2	734.9	561.9	354.4	287.1	336.8
Alt 13a	Flow	268.1	229.1	184.4	190.2	172.5	211.4	374.5	465.9	734.4	558.3	353.9	287.0	335.8
Flow change from Full Use Existing System														
No Act	Flow Change	1.1	-2.1	0.1	2.5	-1.3	5.1	-0.2	-7.6	-29.5	-5.4	0.8	2.9	-2.8
Alt 1a	Flow Change	-0.5	-4.1	-1.6	0.7	-2.9	4.5	-1.6	-14.9	-102.7	-34.6	-2.6	0.0	-13.4
Alt 1c	Flow Change	-0.4	-4.0	-1.3	0.8	-2.9	4.5	-1.7	-15.0	-100.9	-34.6	-2.5	0.2	-13.1
Alt 8a	Flow Change	-0.6	-3.6	-1.7	0.5	-2.9	4.6	-0.9	-14.0	-96.7	-26.9	0.3	0.5	-11.8
Alt 10a	Flow Change	-0.6	-3.6	-1.7	0.5	-2.9	4.6	-0.9	-14.0	-96.8	-26.6	0.4	0.4	-11.8
Alt 13a	Flow Change	-0.6	-4.1	-1.7	0.5	-2.9	4.2	-1.3	-19.3	-97.4	-30.2	-0.1	0.3	-12.7
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	-1%	0%	1%	-1%	2%	0%	-2%	-4%	-1%	0%	1%	-1%
Alt 1a	% Change	0%	-2%	-1%	0%	-2%	2%	0%	-3%	-12%	-6%	-1%	0%	-4%
Alt 1c	% Change	0%	-2%	-1%	0%	-2%	2%	0%	-3%	-12%	-6%	-1%	0%	-4%
Alt 8a	% Change	0%	-2%	-1%	0%	-2%	2%	0%	-3%	-12%	-5%	0%	0%	-3%
Alt 10a	% Change	0%	-2%	-1%	0%	-2%	2%	0%	-3%	-12%	-5%	0%	0%	-3%
Alt 13a	% Change	0%	-2%	-1%	0%	-2%	2%	0%	-4%	-12%	-5%	0%	0%	-4%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		238.2	203.2	154.3	140.4	144.2	157.7	274.3	174.6	173.4	280.7	340.2	318.0	216.6
No Act	Flow	238.3	203.2	154.3	140.4	144.2	157.7	274.3	174.6	173.4	280.7	341.4	318.0	216.7
Alt 1a	Flow	238.3	203.2	154.3	140.4	144.2	157.7	274.3	174.6	173.4	279.1	340.9	318.0	216.5
Alt 1c	Flow	238.2	203.2	154.3	140.4	144.2	157.7	274.3	174.6	173.4	279.9	340.9	318.0	216.6
Alt 8a	Flow	238.3	203.2	154.3	140.4	144.2	157.7	274.3	174.6	173.4	279.1	340.9	318.0	216.5
Alt 10a	Flow	238.3	203.2	154.3	140.4	144.2	157.7	274.3	174.6	173.4	279.1	340.9	318.0	216.5
Alt 13a	Flow	238.3	203.2	154.3	140.4	144.2	157.7	274.3	174.6	173.4	279.1	340.9	318.0	216.5
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.1
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.6	0.7	0.0	-0.1
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.8	0.8	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.6	0.7	0.0	-0.1
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.6	0.7	0.0	-0.1
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.6	0.7	0.0	-0.1
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		318.5	264.6	231.5	216.3	202.7	295.7	612.6	1,307.6	3,002.5	1,974.4	574.5	311.1	776.0
No Act	Flow	327.8	265.9	232.0	217.2	200.8	296.8	612.6	1,299.5	2,922.9	1,959.5	564.5	309.4	767.4
Alt 1a	Flow	327.9	261.3	224.6	211.7	197.8	296.3	612.0	1,260.3	2,800.4	1,940.7	567.4	309.8	750.9
Alt 1c	Flow	327.9	261.4	226.7	212.5	197.9	296.3	612.0	1,260.6	2,804.0	1,941.6	569.1	309.3	751.6
Alt 8a	Flow	327.9	261.0	223.7	211.8	197.8	296.3	612.0	1,260.5	2,819.8	1,954.6	567.5	309.6	753.5
Alt 10a	Flow	327.9	261.1	223.7	211.8	197.8	296.3	612.0	1,260.4	2,818.9	1,955.0	567.5	309.6	753.5
Alt 13a	Flow	327.9	261.0	223.7	211.8	197.8	296.3	612.0	1,260.4	2,814.7	1,948.2	567.3	309.6	752.6
Flow change from Full Use Existing System														
No Act	Flow Change	9.3	1.4	0.5	0.9	-1.9	1.1	0.0	-8.0	-79.5	-14.9	-10.0	-1.7	-8.6
Alt 1a	Flow Change	9.4	-3.3	-6.9	-4.6	-4.9	0.7	-0.6	-47.3	-202.0	-33.7	-7.2	-1.4	-25.1
Alt 1c	Flow Change	9.4	-3.2	-4.8	-3.8	-4.8	0.7	-0.6	-47.0	-198.5	-32.8	-5.4	-1.8	-24.4
Alt 8a	Flow Change	9.4	-3.6	-7.8	-4.5	-4.9	0.6	-0.6	-47.1	-182.7	-19.8	-7.1	-1.5	-22.5
Alt 10a	Flow Change	9.4	-3.5	-7.8	-4.5	-4.9	0.6	-0.6	-47.2	-183.5	-19.4	-7.1	-1.6	-22.5
Alt 13a	Flow Change	9.4	-3.6	-7.8	-4.5	-4.9	0.6	-0.6	-47.2	-187.8	-26.2	-7.2	-1.6	-23.4
Percent change in flow from Full Use Existing System														
No Act	% Change	3%	1%	0%	0%	-1%	0%	0%	-1%	-3%	-1%	-2%	-1%	-1%
Alt 1a	% Change	3%	-1%	-3%	-2%	-2%	0%	0%	-4%	-7%	-2%	-1%	0%	-3%
Alt 1c	% Change	3%	-1%	-2%	-2%	-2%	0%	0%	-4%	-7%	-2%	-1%	-1%	-3%
Alt 8a	% Change	3%	-1%	-3%	-2%	-2%	0%	0%	-4%	-6%	-1%	-1%	0%	-3%
Alt 10a	% Change	3%	-1%	-3%	-2%	-2%	0%	0%	-4%	-6%	-1%	-1%	-1%	-3%
Alt 13a	% Change	3%	-1%	-3%	-2%	-2%	0%	0%	-4%	-6%	-1%	-1%	-1%	-3%

Table H-3.33. Colorado River near Kremmling Gage (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		753.1	566.0	496.8	489.0	430.9	632.0	720.1	1,181.5	1,997.8	1,504.4	1,087.6	900.4	896.6
No Act	Flow	751.1	563.7	495.5	488.9	428.6	635.0	721.7	1,169.3	1,896.4	1,451.2	1,062.5	895.5	879.9
Alt 1a	Flow	750.5	562.5	494.6	487.9	427.9	634.3	719.5	1,170.9	1,870.8	1,430.8	1,075.1	896.2	876.8
Alt 1c	Flow	750.7	562.5	494.6	487.9	427.8	634.2	719.5	1,170.8	1,869.9	1,428.8	1,074.6	895.9	876.4
Alt 8a	Flow	750.1	563.1	494.9	487.9	428.3	635.3	719.6	1,172.0	1,880.1	1,442.5	1,077.4	896.9	879.0
Alt 10a	Flow	750.0	563.0	495.0	487.9	428.3	635.2	719.6	1,172.0	1,879.8	1,442.3	1,077.4	896.9	879.0
Alt 13a	Flow	750.0	562.7	494.9	487.8	428.3	634.7	719.5	1,166.5	1,877.4	1,437.6	1,077.8	896.7	877.8
Flow change from Full Use Existing System														
No Act	Flow Change	-1.9	-2.3	-1.4	-0.1	-2.4	3.0	1.7	-12.2	-101.5	-53.3	-25.1	-4.8	-16.7
Alt 1a	Flow Change	-2.5	-3.5	-2.2	-1.0	-3.0	2.3	-0.5	-10.6	-127.0	-73.7	-12.5	-4.2	-19.9
Alt 1c	Flow Change	-2.4	-3.6	-2.3	-1.0	-3.1	2.2	-0.5	-10.8	-127.9	-75.6	-13.0	-4.5	-20.2
Alt 8a	Flow Change	-2.9	-3.0	-1.9	-1.0	-2.6	3.3	-0.5	-9.5	-117.8	-62.0	-10.2	-3.5	-17.6
Alt 10a	Flow Change	-3.1	-3.0	-1.9	-1.0	-2.6	3.3	-0.5	-9.5	-118.1	-62.1	-10.2	-3.5	-17.7
Alt 13a	Flow Change	-3.0	-3.4	-2.0	-1.1	-2.7	2.7	-0.5	-15.0	-120.4	-66.8	-9.8	-3.7	-18.8
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	-1%	0%	0%	-1%	-5%	-4%	-2%	-1%	-2%
Alt 1a	% Change	0%	-1%	0%	0%	-1%	0%	0%	-1%	-6%	-5%	-1%	0%	-2%
Alt 1c	% Change	0%	-1%	0%	0%	-1%	0%	0%	-1%	-6%	-5%	-1%	0%	-2%
Alt 8a	% Change	0%	-1%	0%	0%	-1%	1%	0%	-1%	-6%	-4%	-1%	0%	-2%
Alt 10a	% Change	0%	-1%	0%	0%	-1%	1%	0%	-1%	-6%	-4%	-1%	0%	-2%
Alt 13a	% Change	0%	-1%	0%	0%	-1%	0%	0%	-1%	-6%	-4%	-1%	0%	-2%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		729.9	474.8	400.2	369.4	346.8	470.3	626.3	436.4	386.4	873.6	1,041.6	848.5	583.7
No Act	Flow	730.4	474.6	399.9	368.4	346.8	469.9	626.3	436.4	386.4	873.6	1,041.7	848.5	583.6
Alt 1a	Flow	731.3	474.2	399.5	368.1	346.7	469.5	626.3	436.4	386.4	873.6	1,041.8	848.4	583.5
Alt 1c	Flow	731.1	473.9	399.3	367.9	346.7	469.3	626.3	436.4	386.4	873.6	1,041.7	848.4	583.4
Alt 8a	Flow	731.4	474.6	400.0	368.5	346.8	470.0	626.3	436.4	386.4	873.6	1,041.8	848.5	583.7
Alt 10a	Flow	731.4	474.7	400.0	368.5	346.8	470.0	626.3	436.4	386.4	873.6	1,041.8	848.5	583.7
Alt 13a	Flow	731.3	474.3	399.7	368.2	346.8	469.7	626.3	436.4	386.4	873.6	1,041.8	848.4	583.6
Flow change from Full Use Existing System														
No Act	Flow Change	0.5	-0.3	-0.3	-1.0	0.0	-0.3	0.0	0.0	0.0	0.0	0.1	-0.1	-0.1
Alt 1a	Flow Change	1.4	-0.6	-0.7	-1.3	0.0	-0.8	0.0	0.0	0.0	-0.1	0.2	-0.1	-0.2
Alt 1c	Flow Change	1.2	-0.9	-0.9	-1.5	0.0	-1.0	0.0	0.0	0.0	0.0	0.1	-0.1	-0.3
Alt 8a	Flow Change	1.5	-0.2	-0.2	-0.9	0.0	-0.3	0.0	0.0	0.0	-0.1	0.2	-0.1	0.0
Alt 10a	Flow Change	1.5	-0.1	-0.2	-0.9	0.0	-0.2	0.0	0.0	0.0	-0.1	0.2	-0.1	0.0
Alt 13a	Flow Change	1.4	-0.5	-0.5	-1.2	0.0	-0.6	0.0	0.0	0.0	-0.1	0.2	-0.1	-0.1
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		754.9	677.3	638.8	573.1	504.2	1,008.3	1,035.4	2,718.9	6,091.0	3,825.9	1,463.8	889.7	1,681.8
No Act	Flow	754.5	673.4	634.7	570.0	499.8	1,004.5	1,035.3	2,692.8	5,817.7	3,794.6	1,448.6	887.1	1,651.1
Alt 1a	Flow	754.5	673.4	634.1	569.8	499.7	1,005.9	1,034.9	2,678.4	5,818.6	3,747.5	1,446.4	887.4	1,645.9
Alt 1c	Flow	754.5	673.3	634.1	569.7	499.6	1,005.9	1,034.8	2,678.5	5,813.7	3,746.5	1,447.5	887.2	1,645.4
Alt 8a	Flow	754.5	673.4	634.1	569.9	499.7	1,005.9	1,034.9	2,678.6	5,862.8	3,769.0	1,446.5	887.4	1,651.4
Alt 10a	Flow	754.5	673.4	634.1	569.8	499.7	1,005.9	1,034.9	2,678.4	5,862.8	3,767.2	1,446.5	887.4	1,651.2
Alt 13a	Flow	754.5	673.4	634.1	569.8	499.7	1,005.9	1,034.8	2,678.4	5,846.2	3,759.2	1,445.9	887.4	1,649.1
Flow change from Full Use Existing System														
No Act	Flow Change	-0.4	-3.9	-4.1	-3.0	-4.4	-3.9	-0.1	-26.2	-273.3	-31.3	-15.2	-2.6	-30.7
Alt 1a	Flow Change	-0.4	-3.9	-4.6	-3.3	-4.5	-2.5	-0.6	-40.5	-272.4	-78.5	-17.5	-2.3	-35.9
Alt 1c	Flow Change	-0.4	-3.9	-4.7	-3.4	-4.6	-2.5	-0.6	-40.4	-277.3	-79.4	-16.3	-2.5	-36.3
Alt 8a	Flow Change	-0.4	-3.9	-4.6	-3.2	-4.5	-2.5	-0.6	-40.4	-228.2	-56.9	-17.3	-2.3	-30.4
Alt 10a	Flow Change	-0.4	-3.9	-4.6	-3.2	-4.5	-2.5	-0.6	-40.5	-228.2	-58.7	-17.3	-2.3	-30.6
Alt 13a	Flow Change	-0.4	-3.9	-4.6	-3.2	-4.5	-2.5	-0.6	-40.5	-244.8	-66.7	-17.9	-2.3	-32.7
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	-1%	-1%	-1%	-1%	0%	0%	-1%	-4%	-1%	-1%	0%	-2%
Alt 1a	% Change	0%	-1%	-1%	-1%	-1%	0%	0%	-1%	-4%	-2%	-1%	0%	-2%
Alt 1c	% Change	0%	-1%	-1%	-1%	-1%	0%	0%	-1%	-5%	-2%	-1%	0%	-2%
Alt 8a	% Change	0%	-1%	-1%	-1%	-1%	0%	0%	-1%	-4%	-1%	-1%	0%	-2%
Alt 10a	% Change	0%	-1%	-1%	-1%	-1%	0%	0%	-1%	-4%	-2%	-1%	0%	-2%
Alt 13a	% Change	0%	-1%	-1%	-1%	-1%	0%	0%	-1%	-4%	-2%	-1%	0%	-2%

Table H-3.34. Wolford Mountain Reservoir Outflow (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		33.8	25.7	22.6	40.3	27.8	44.5	75.4	298.6	265.6	93.3	61.3	65.8	87.9
No Act	Flow	33.8	25.7	22.6	39.0	27.3	44.4	75.4	297.9	265.7	93.4	62.2	69.1	88.0
Alt 1a	Flow	33.8	25.7	22.6	39.0	27.3	44.3	75.4	298.1	265.7	93.2	61.8	68.6	88.0
Alt 1c	Flow	33.8	25.7	22.6	39.0	27.2	44.3	75.4	298.1	265.7	93.2	61.8	68.6	88.0
Alt 8a	Flow	33.8	25.7	22.6	38.9	27.6	44.3	75.4	298.1	265.7	93.2	61.8	68.3	88.0
Alt 10a	Flow	33.8	25.7	22.6	38.9	27.6	44.3	75.4	298.2	265.7	93.2	61.8	68.3	88.0
Alt 13a	Flow	33.8	25.7	22.6	38.9	27.6	44.3	75.4	298.1	265.7	93.3	61.8	68.3	88.0
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	-1.4	-0.4	-0.1	0.0	-0.7	0.1	0.1	0.9	3.3	0.1
Alt 1a	Flow Change	0.0	0.0	0.0	-1.4	-0.5	-0.2	0.0	-0.5	0.1	-0.1	0.5	2.8	0.1
Alt 1c	Flow Change	0.0	0.0	0.0	-1.4	-0.6	-0.2	0.0	-0.5	0.1	-0.1	0.5	2.9	0.1
Alt 8a	Flow Change	0.0	0.0	0.0	-1.4	-0.2	-0.1	0.0	-0.5	0.1	-0.1	0.5	2.6	0.1
Alt 10a	Flow Change	0.0	0.0	0.0	-1.4	-0.2	-0.1	0.0	-0.4	0.1	-0.1	0.5	2.6	0.1
Alt 13a	Flow Change	0.0	0.0	0.0	-1.4	-0.2	-0.2	0.0	-0.5	0.1	0.0	0.5	2.5	0.1
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	-3%	-2%	0%	0%	0%	0%	0%	1%	5%	0%
Alt 1a	% Change	0%	0%	0%	-3%	-2%	0%	0%	0%	0%	0%	1%	4%	0%
Alt 1c	% Change	0%	0%	0%	-3%	-2%	0%	0%	0%	0%	0%	1%	4%	0%
Alt 8a	% Change	0%	0%	0%	-3%	-1%	0%	0%	0%	0%	0%	1%	4%	0%
Alt 10a	% Change	0%	0%	0%	-3%	-1%	0%	0%	0%	0%	0%	1%	4%	0%
Alt 13a	% Change	0%	0%	0%	-3%	-1%	0%	0%	0%	0%	0%	1%	4%	0%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		24.7	22.6	17.2	25.9	13.9	34.7	95.4	94.6	67.2	62.0	109.8	208.0	64.7
No Act	Flow	24.7	22.6	17.2	25.1	13.9	34.7	95.4	94.6	67.2	62.0	109.8	208.8	64.7
Alt 1a	Flow	24.7	22.6	17.2	25.1	13.9	34.7	95.4	94.6	67.2	62.0	109.8	208.8	64.7
Alt 1c	Flow	24.7	22.6	17.2	25.1	13.9	34.7	95.4	94.6	67.2	62.0	109.8	208.8	64.7
Alt 8a	Flow	24.7	22.6	17.2	25.1	13.9	34.7	95.4	94.6	67.2	62.0	109.8	208.8	64.7
Alt 10a	Flow	24.7	22.6	17.2	25.1	13.9	34.7	95.4	94.6	67.2	62.0	109.8	208.8	64.7
Alt 13a	Flow	24.7	22.6	17.2	25.2	13.9	34.7	95.4	94.6	67.2	62.0	109.8	208.8	64.7
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	-0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	-0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0
Alt 1c	Flow Change	0.0	0.0	0.0	-0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	-0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0
Alt 10a	Flow Change	0.0	0.0	0.0	-0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0
Alt 13a	Flow Change	0.0	0.0	0.0	-0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	-3%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	-3%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	-3%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	-3%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	-3%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	-3%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		35.5	29.8	29.2	27.0	29.2	74.0	70.7	612.1	489.2	163.6	47.1	52.1	138.3
No Act	Flow	35.7	29.9	29.1	27.0	29.6	73.0	70.7	612.5	489.2	163.7	47.1	52.0	138.3
Alt 1a	Flow	35.7	29.8	29.1	27.0	29.9	72.9	70.7	612.6	489.2	163.7	47.7	51.4	138.3
Alt 1c	Flow	35.7	29.8	29.1	27.0	29.7	73.0	70.7	612.6	489.2	163.7	47.7	51.4	138.3
Alt 8a	Flow	35.7	29.8	29.1	27.0	29.8	73.0	70.7	612.5	489.2	163.7	47.7	51.4	138.3
Alt 10a	Flow	35.7	29.8	29.1	27.0	29.8	73.0	70.7	612.5	489.2	163.7	47.7	51.4	138.3
Alt 13a	Flow	35.7	29.8	29.1	27.0	29.8	73.0	70.7	612.5	489.2	163.7	47.7	51.4	138.3
Flow change from Full Use Existing System														
No Act	Flow Change	0.1	0.1	0.0	0.0	0.4	-1.0	0.0	0.4	0.0	0.1	0.0	-0.1	0.0
Alt 1a	Flow Change	0.1	0.0	0.0	-0.1	0.7	-1.2	0.0	0.6	0.0	0.1	0.6	-0.8	0.0
Alt 1c	Flow Change	0.1	0.0	0.0	0.0	0.6	-1.1	0.0	0.6	0.0	0.1	0.6	-0.7	0.0
Alt 8a	Flow Change	0.1	0.1	0.0	-0.1	0.6	-1.0	0.0	0.5	0.0	0.1	0.6	-0.8	0.0
Alt 10a	Flow Change	0.1	0.1	0.0	-0.1	0.6	-1.0	0.0	0.5	0.0	0.1	0.6	-0.8	0.0
Alt 13a	Flow Change	0.1	0.1	0.0	-0.1	0.6	-1.0	0.0	0.5	0.0	0.1	0.6	-0.8	0.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	1%	-1%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	2%	-2%	0%	0%	0%	0%	1%	-1%	0%
Alt 1c	% Change	0%	0%	0%	0%	2%	-1%	0%	0%	0%	0%	1%	-1%	0%
Alt 8a	% Change	0%	0%	0%	0%	2%	-1%	0%	0%	0%	0%	1%	-1%	0%
Alt 10a	% Change	0%	0%	0%	0%	2%	-1%	0%	0%	0%	0%	1%	-1%	0%
Alt 13a	% Change	0%	0%	0%	0%	2%	-1%	0%	0%	0%	0%	1%	-1%	0%

Table H-3.35. Roberts Tunnel Diversions (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		175.0	89.7	96.4	82.9	84.3	72.0	93.9	66.4	106.7	173.0	259.8	303.7	133.7
No Act	Flow	188.9	95.2	105.1	93.4	95.2	81.9	104.1	75.7	115.7	198.7	290.0	330.4	147.9
Alt 1a	Flow	170.9	59.9	63.1	53.2	54.0	47.2	82.6	124.6	156.7	237.7	304.1	326.7	140.1
Alt 1c	Flow	171.0	60.1	63.3	53.0	54.2	47.2	82.3	124.7	156.9	238.5	307.6	328.7	140.6
Alt 8a	Flow	170.8	60.1	63.3	53.7	54.4	47.4	81.5	123.6	155.1	236.1	301.8	324.6	139.4
Alt 10a	Flow	170.5	60.1	63.3	53.7	54.4	47.4	81.6	124.0	155.3	236.1	301.7	324.9	139.4
Alt 13a	Flow	170.3	59.6	63.0	52.9	54.2	47.0	81.9	124.6	155.8	238.1	302.6	325.6	139.6
Diversion change from Full Use Existing System														
No Act	Div. Change	14.0	5.5	8.7	10.5	10.9	10.0	10.2	9.3	9.0	25.6	30.3	26.6	14.2
Alt 1a	Div. Change	-4.1	-29.8	-33.3	-29.7	-30.3	-24.8	-11.4	58.2	50.0	64.6	44.3	23.0	6.4
Alt 1c	Div. Change	-4.0	-29.7	-33.1	-29.9	-30.2	-24.8	-11.7	58.3	50.2	65.5	47.8	25.0	7.0
Alt 8a	Div. Change	-4.1	-29.6	-33.1	-29.2	-29.9	-24.6	-12.4	57.2	48.4	63.1	42.1	20.8	5.7
Alt 10a	Div. Change	-4.4	-29.6	-33.1	-29.2	-29.9	-24.6	-12.3	57.6	48.6	63.1	42.0	21.2	5.8
Alt 13a	Div. Change	-4.7	-30.1	-33.4	-30.0	-30.1	-25.0	-12.0	58.2	49.1	65.1	42.8	21.8	6.0
Percent change in diversion from Full Use Existing System														
No Act	% Change	8%	6%	9%	13%	13%	14%	11%	14%	8%	15%	12%	9%	11%
Alt 1a	% Change	-2%	-33%	-35%	-36%	-36%	-34%	-12%	88%	47%	37%	17%	8%	5%
Alt 1c	% Change	-2%	-33%	-34%	-36%	-36%	-34%	-12%	88%	47%	38%	18%	8%	5%
Alt 8a	% Change	-2%	-33%	-34%	-35%	-35%	-34%	-13%	86%	45%	36%	16%	7%	4%
Alt 10a	% Change	-3%	-33%	-34%	-35%	-35%	-34%	-13%	87%	46%	36%	16%	7%	4%
Alt 13a	% Change	-3%	-34%	-35%	-36%	-36%	-35%	-13%	88%	46%	38%	16%	7%	4%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		246.1	115.5	110.4	104.0	106.6	86.5	226.3	251.7	314.8	377.8	263.4	264.1	205.6
No Act	Flow	266.7	121.6	121.6	115.2	119.4	99.3	233.0	253.4	322.9	392.7	261.7	241.2	212.4
Alt 1a	Flow	249.0	84.0	81.7	77.5	80.1	55.2	214.6	292.6	372.7	419.8	285.0	241.8	204.5
Alt 1c	Flow	248.4	84.0	81.7	77.5	80.4	55.2	214.2	292.4	371.8	418.0	285.0	240.1	204.1
Alt 8a	Flow	250.1	84.5	81.8	78.0	80.4	55.4	213.9	292.7	372.0	419.7	283.9	242.0	204.5
Alt 10a	Flow	249.1	84.8	81.8	77.6	80.1	55.6	214.3	292.8	372.5	418.8	283.4	241.8	204.4
Alt 13a	Flow	246.1	84.0	81.7	77.5	80.7	55.3	214.2	293.2	373.2	418.8	285.7	242.1	204.4
Diversion change from Full Use Existing System														
No Act	Div. Change	20.6	6.0	11.2	11.3	12.8	12.8	6.7	1.8	8.1	14.8	-1.7	-22.9	6.8
Alt 1a	Div. Change	2.9	-31.5	-28.8	-26.5	-26.5	-31.3	-11.7	40.9	57.9	42.0	21.6	-22.3	-1.1
Alt 1c	Div. Change	2.3	-31.6	-28.8	-26.5	-26.2	-31.3	-12.1	40.7	57.0	40.2	21.7	-24.0	-1.5
Alt 8a	Div. Change	4.0	-31.1	-28.6	-26.0	-26.2	-31.1	-12.4	41.0	57.2	41.8	20.6	-22.1	-1.1
Alt 10a	Div. Change	3.0	-30.8	-28.6	-26.4	-26.5	-30.9	-12.0	41.1	57.7	41.0	20.0	-22.3	-1.2
Alt 13a	Div. Change	0.0	-31.5	-28.8	-26.5	-25.8	-31.2	-12.0	41.5	58.4	40.9	22.3	-22.0	-1.2
Percent change in diversion from Full Use Existing System														
No Act	% Change	8%	5%	10%	11%	12%	15%	3%	1%	3%	4%	-1%	-9%	3%
Alt 1a	% Change	1%	-27%	-26%	-25%	-25%	-36%	-5%	16%	18%	11%	8%	-8%	-1%
Alt 1c	% Change	1%	-27%	-26%	-25%	-25%	-36%	-5%	16%	18%	11%	8%	-9%	-1%
Alt 8a	% Change	2%	-27%	-26%	-25%	-25%	-36%	-5%	16%	18%	11%	8%	-8%	-1%
Alt 10a	% Change	1%	-27%	-26%	-25%	-25%	-36%	-5%	16%	18%	11%	8%	-8%	-1%
Alt 13a	% Change	0%	-27%	-26%	-25%	-24%	-36%	-5%	16%	19%	11%	8%	-8%	-1%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		84.3	66.0	78.7	53.8	60.4	50.5	22.6	8.2	15.4	65.5	204.5	263.8	81.1
No Act	Flow	104.1	76.5	95.9	66.4	72.1	59.1	28.2	10.1	18.7	82.8	228.0	288.3	94.2
Alt 1a	Flow	87.1	41.3	44.6	30.6	39.1	31.5	15.0	56.3	22.0	104.1	242.6	287.5	83.5
Alt 1c	Flow	87.7	41.5	44.7	30.5	39.2	31.5	15.2	56.8	21.6	106.2	248.4	290.8	84.5
Alt 8a	Flow	84.4	41.6	44.7	30.7	39.5	31.4	14.9	51.8	21.0	105.8	243.8	287.2	83.0
Alt 10a	Flow	84.1	41.7	44.6	30.6	39.5	31.4	14.9	54.3	21.1	106.1	243.2	287.5	83.2
Alt 13a	Flow	85.0	41.0	45.0	30.8	39.2	31.1	14.9	53.3	22.2	107.8	242.6	288.5	83.4
Diversion change from Full Use Existing System														
No Act	Div. Change	19.9	10.5	17.2	12.6	11.7	8.6	5.6	1.9	3.2	17.2	23.5	24.5	13.0
Alt 1a	Div. Change	2.9	-24.7	-34.2	-23.2	-21.3	-19.0	-7.6	48.1	6.6	38.6	38.1	23.7	2.3
Alt 1c	Div. Change	3.5	-24.5	-34.0	-23.3	-21.3	-19.0	-7.4	48.6	6.1	40.7	43.9	27.0	3.4
Alt 8a	Div. Change	0.1	-24.4	-34.0	-23.1	-20.9	-19.1	-7.7	43.5	5.6	40.2	39.3	23.4	1.9
Alt 10a	Div. Change	-0.2	-24.3	-34.1	-23.2	-20.9	-19.1	-7.8	46.1	5.7	40.5	38.7	23.7	2.1
Alt 13a	Div. Change	0.8	-25.0	-33.8	-23.0	-21.2	-19.4	-7.7	45.0	6.8	42.3	38.1	24.7	2.3
Percent change in diversion from Full Use Existing System														
No Act	% Change	24%	16%	22%	23%	19%	17%	25%	24%	21%	26%	11%	9%	16%
Alt 1a	% Change	3%	-37%	-43%	-43%	-35%	-38%	-34%	586%	43%	59%	19%	9%	3%
Alt 1c	% Change	4%	-37%	-43%	-43%	-35%	-38%	-33%	591%	40%	62%	21%	10%	4%
Alt 8a	% Change	0%	-37%	-43%	-43%	-35%	-38%	-34%	530%	36%	61%	19%	9%	2%
Alt 10a	% Change	0%	-37%	-43%	-43%	-35%	-38%	-34%	561%	37%	62%	19%	9%	3%
Alt 13a	% Change	1%	-38%	-43%	-43%	-35%	-38%	-34%	549%	44%	65%	19%	9%	3%

Table H-3.36. Dillon Reservoir Outflow (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		63.8	56.9	54.0	51.4	50.7	50.3	69.2	197.3	561.0	251.6	123.4	71.9	133.5
No Act	Flow	61.1	56.1	53.4	51.1	50.8	50.2	65.8	173.1	474.4	228.4	99.1	69.5	119.4
Alt 1a	Flow	61.7	56.7	54.7	52.6	52.2	51.2	71.8	195.1	515.5	226.8	114.1	70.1	126.9
Alt 1c	Flow	61.6	56.6	54.4	52.5	52.2	51.2	71.8	193.8	513.0	225.6	113.6	69.7	126.3
Alt 8a	Flow	61.9	56.7	54.8	52.6	52.2	51.2	71.8	195.2	521.3	228.1	114.5	70.3	127.5
Alt 10a	Flow	61.9	56.7	54.8	52.6	52.2	51.2	71.8	195.2	521.1	227.8	114.4	70.4	127.5
Alt 13a	Flow	61.9	56.7	54.8	52.6	52.2	51.2	71.8	195.2	519.4	226.8	114.7	70.3	127.3
Flow change from Full Use Existing System														
No Act	Flow Change	-2.7	-0.8	-0.6	-0.3	0.0	-0.2	-3.4	-24.2	-86.6	-23.2	-24.3	-2.5	-14.1
Alt 1a	Flow Change	-2.1	-0.2	0.7	1.3	1.4	0.8	2.6	-2.2	-45.6	-24.8	-9.3	-1.8	-6.6
Alt 1c	Flow Change	-2.2	-0.3	0.4	1.2	1.4	0.8	2.6	-3.6	-48.0	-26.0	-9.8	-2.3	-7.1
Alt 8a	Flow Change	-1.9	-0.2	0.8	1.3	1.4	0.8	2.6	-2.1	-39.7	-23.5	-8.9	-1.6	-5.9
Alt 10a	Flow Change	-1.9	-0.2	0.8	1.3	1.4	0.8	2.6	-2.2	-40.0	-23.8	-9.1	-1.6	-6.0
Alt 13a	Flow Change	-1.9	-0.1	0.8	1.3	1.4	0.9	2.6	-2.1	-41.6	-24.8	-8.8	-1.7	-6.2
Percent change in flow from Full Use Existing System														
No Act	% Change	-4%	-1%	-1%	0%	0%	0%	-5%	-12%	-15%	-9%	-20%	-3%	-11%
Alt 1a	% Change	-3%	0%	1%	2%	3%	2%	4%	-1%	-8%	-10%	-8%	-3%	-5%
Alt 1c	% Change	-3%	0%	1%	2%	3%	2%	4%	-2%	-9%	-10%	-8%	-3%	-5%
Alt 8a	% Change	-3%	0%	2%	2%	3%	2%	4%	-1%	-7%	-9%	-7%	-2%	-4%
Alt 10a	% Change	-3%	0%	2%	2%	3%	2%	4%	-1%	-7%	-9%	-7%	-2%	-4%
Alt 13a	% Change	-3%	0%	2%	2%	3%	2%	4%	-1%	-7%	-10%	-7%	-2%	-5%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		50.1	50.1	49.8	49.8	49.8	49.4	49.9	50.5	50.0	71.9	83.6	75.4	56.7
No Act	Flow	50.1	50.1	49.8	49.8	49.8	49.4	49.9	50.5	50.0	71.9	82.8	75.4	56.6
Alt 1a	Flow	50.1	50.1	49.8	49.8	49.8	49.4	49.9	50.5	50.0	73.5	83.2	75.4	56.8
Alt 1c	Flow	50.1	50.1	49.8	49.8	49.8	49.4	49.9	50.5	50.0	72.7	83.2	75.4	56.7
Alt 8a	Flow	50.1	50.1	49.8	49.8	49.8	49.4	49.9	50.5	50.0	73.5	83.2	75.4	56.8
Alt 10a	Flow	50.1	50.1	49.8	49.8	49.8	49.4	49.9	50.5	50.0	73.5	83.2	75.4	56.8
Alt 13a	Flow	50.1	50.1	49.8	49.8	49.8	49.4	49.9	50.5	50.0	73.5	83.2	75.4	56.8
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.8	0.0	-0.1
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	-0.3	0.0	0.1
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	-0.3	0.0	0.0
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	-0.3	0.0	0.1
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	-0.3	0.0	0.1
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	-0.3	0.0	0.1
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		68.3	57.5	52.9	49.9	50.2	51.7	132.6	590.3	1,429.0	628.4	290.4	135.6	294.7
No Act	Flow	50.1	50.0	50.0	49.9	50.2	50.1	112.0	508.5	1,320.6	612.2	285.3	134.5	272.8
Alt 1a	Flow	50.0	53.6	57.4	55.8	53.3	52.8	136.3	545.7	1,407.0	582.5	280.7	132.4	284.0
Alt 1c	Flow	50.0	53.5	55.3	54.9	53.3	52.8	136.2	543.1	1,401.2	580.7	280.1	132.2	282.8
Alt 8a	Flow	50.0	53.9	58.3	55.8	53.3	52.8	136.4	546.5	1,431.2	590.2	280.7	132.3	286.8
Alt 10a	Flow	50.0	53.8	58.4	55.7	53.3	52.8	136.4	546.8	1,431.8	588.0	280.7	132.3	286.7
Alt 13a	Flow	50.0	53.9	58.3	55.8	53.3	52.8	136.4	546.0	1,420.2	586.8	280.3	132.3	285.5
Flow change from Full Use Existing System														
No Act	Flow Change	-18.2	-7.5	-2.9	0.0	0.0	-1.7	-20.6	-81.8	-108.4	-16.2	-5.1	-1.1	-22.0
Alt 1a	Flow Change	-18.3	-4.0	4.5	5.9	3.1	1.0	3.8	-44.6	-21.9	-45.9	-9.7	-3.1	-10.8
Alt 1c	Flow Change	-18.3	-4.1	2.4	5.0	3.1	1.0	3.6	-47.2	-27.8	-47.7	-10.3	-3.4	-12.0
Alt 8a	Flow Change	-18.3	-3.6	5.4	5.9	3.1	1.0	3.8	-43.8	2.2	-38.2	-9.8	-3.2	-8.0
Alt 10a	Flow Change	-18.3	-3.7	5.4	5.9	3.1	1.0	3.8	-43.5	2.8	-40.4	-9.8	-3.2	-8.1
Alt 13a	Flow Change	-18.3	-3.6	5.4	5.9	3.1	1.0	3.8	-44.3	-8.8	-41.6	-10.2	-3.2	-9.2
Percent change in flow from Full Use Existing System														
No Act	% Change	-27%	-13%	-6%	0%	0%	-3%	-16%	-14%	-8%	-3%	-2%	-1%	-7%
Alt 1a	% Change	-27%	-7%	9%	12%	6%	2%	3%	-8%	-2%	-7%	-3%	-2%	-4%
Alt 1c	% Change	-27%	-7%	4%	10%	6%	2%	3%	-8%	-2%	-8%	-4%	-2%	-4%
Alt 8a	% Change	-27%	-6%	10%	12%	6%	2%	3%	-7%	0%	-6%	-3%	-2%	-3%
Alt 10a	% Change	-27%	-6%	10%	12%	6%	2%	3%	-7%	0%	-6%	-3%	-2%	-3%
Alt 13a	% Change	-27%	-6%	10%	12%	6%	2%	3%	-8%	-1%	-7%	-4%	-2%	-3%

Table H-3.37. Green Mountain Reservoir Outflow (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		376.7	237.6	228.2	202.6	170.6	317.9	119.0	90.7	659.0	714.5	581.5	534.9	352.8
No Act	Flow	373.6	237.4	226.8	201.3	170.0	315.9	120.8	85.5	587.5	666.7	554.9	523.9	338.7
Alt 1a	Flow	374.6	238.2	227.6	202.2	171.0	316.0	120.0	95.1	633.2	676.6	571.7	527.9	346.2
Alt 1c	Flow	374.7	238.1	227.2	202.1	171.0	315.9	120.0	95.0	630.5	674.8	571.1	527.3	345.6
Alt 8a	Flow	374.4	238.3	228.0	202.4	171.1	316.9	119.3	95.3	636.6	680.4	571.0	528.4	346.8
Alt 10a	Flow	374.2	238.2	228.0	202.5	171.1	316.8	119.3	95.3	636.4	680.0	571.0	528.4	346.8
Alt 13a	Flow	374.3	238.4	227.9	202.4	171.0	316.6	119.6	95.1	634.3	679.2	571.8	528.3	346.6
Flow change from Full Use Existing System														
No Act	Flow Change	-3.0	-0.3	-1.5	-1.3	-0.6	-2.0	1.8	-5.1	-71.4	-47.8	-26.6	-11.0	-14.1
Alt 1a	Flow Change	-2.1	0.6	-0.7	-0.4	0.4	-2.0	1.0	4.4	-25.8	-37.9	-9.8	-7.0	-6.6
Alt 1c	Flow Change	-2.0	0.4	-1.0	-0.5	0.4	-2.1	1.1	4.4	-28.5	-39.7	-10.4	-7.6	-7.1
Alt 8a	Flow Change	-2.3	0.6	-0.3	-0.1	0.5	-1.0	0.3	4.7	-22.3	-34.1	-10.5	-6.5	-5.9
Alt 10a	Flow Change	-2.5	0.6	-0.2	-0.1	0.5	-1.1	0.3	4.7	-22.6	-34.5	-10.5	-6.5	-6.0
Alt 13a	Flow Change	-2.4	0.8	-0.3	-0.2	0.4	-1.3	0.6	4.5	-24.6	-35.3	-9.7	-6.6	-6.2
Percent change in flow from Full Use Existing System														
No Act	% Change	-1%	0%	-1%	-1%	0%	-1%	2%	-6%	-11%	-7%	-5%	-2%	-4%
Alt 1a	% Change	-1%	0%	0%	0%	0%	-1%	1%	5%	-4%	-5%	-2%	-1%	-2%
Alt 1c	% Change	-1%	0%	0%	0%	0%	-1%	1%	5%	-4%	-6%	-2%	-1%	-2%
Alt 8a	% Change	-1%	0%	0%	0%	0%	0%	0%	5%	-3%	-5%	-2%	-1%	-2%
Alt 10a	% Change	-1%	0%	0%	0%	0%	0%	0%	5%	-3%	-5%	-2%	-1%	-2%
Alt 13a	% Change	-1%	0%	0%	0%	0%	0%	1%	5%	-4%	-5%	-2%	-1%	-2%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Full Use Existing System		398.7	200.1	179.7	158.0	129.2	219.0	163.2	75.0	150.4	483.2	513.1	316.0	248.8
No Act	Flow	399.2	199.8	179.4	157.8	129.1	218.7	163.2	75.0	150.4	483.2	512.0	315.2	248.6
Alt 1a	Flow	400.1	199.4	179.0	157.5	129.1	218.2	163.2	75.0	150.4	484.6	512.6	315.2	248.7
Alt 1c	Flow	399.9	199.2	178.8	157.3	129.1	218.0	163.2	75.0	150.4	483.8	512.6	315.2	248.5
Alt 8a	Flow	400.1	199.9	179.5	157.9	129.1	218.7	163.2	75.0	150.4	484.6	512.6	315.2	248.8
Alt 10a	Flow	400.1	199.9	179.5	157.9	129.1	218.8	163.2	75.0	150.4	484.6	512.6	315.2	248.9
Alt 13a	Flow	400.1	199.6	179.1	157.6	129.1	218.4	163.2	75.0	150.4	484.6	512.6	315.2	248.7
Flow change from Full Use Existing System														
No Act	Flow Change	0.5	-0.3	-0.3	-0.2	0.0	-0.3	0.0	0.0	0.0	0.0	-1.1	-0.8	-0.2
Alt 1a	Flow Change	1.4	-0.7	-0.7	-0.6	0.0	-0.7	0.0	0.0	0.0	1.4	-0.5	-0.8	-0.1
Alt 1c	Flow Change	1.2	-0.9	-0.9	-0.8	0.0	-1.0	0.0	0.0	0.0	0.6	-0.5	-0.8	-0.3
Alt 8a	Flow Change	1.4	-0.2	-0.2	-0.2	0.0	-0.3	0.0	0.0	0.0	1.4	-0.5	-0.8	0.1
Alt 10a	Flow Change	1.4	-0.2	-0.2	-0.2	0.0	-0.2	0.0	0.0	0.0	1.4	-0.5	-0.8	0.1
Alt 13a	Flow Change	1.4	-0.6	-0.6	-0.5	0.0	-0.6	0.0	0.0	0.0	1.4	-0.5	-0.8	-0.1
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	-1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Full Use Existing System		321.2	311.3	313.7	268.6	208.5	577.4	89.1	242.2	2,080.6	1,446.7	731.3	503.3	591.2
No Act	Flow	311.3	306.2	309.1	264.6	205.8	573.3	89.1	222.7	1,887.5	1,430.4	726.1	502.7	569.1
Alt 1a	Flow	311.2	310.8	316.0	269.9	208.5	575.4	89.1	247.8	2,010.8	1,401.3	721.0	503.1	580.4
Alt 1c	Flow	311.2	310.6	313.8	268.9	208.4	575.4	89.1	247.6	2,002.2	1,399.6	720.4	503.4	579.2
Alt 8a	Flow	311.2	311.0	316.9	269.8	208.5	575.4	89.1	247.8	2,035.7	1,409.0	721.0	503.4	583.2
Alt 10a	Flow	311.2	310.9	316.9	269.8	208.4	575.4	89.1	247.8	2,036.5	1,406.8	721.0	503.4	583.1
Alt 13a	Flow	311.2	311.0	316.8	269.8	208.4	575.4	89.1	247.8	2,024.2	1,405.6	720.6	503.4	581.9
Flow change from Full Use Existing System														
No Act	Flow Change	-9.9	-5.2	-4.7	-4.0	-2.7	-4.1	0.0	-19.6	-193.1	-16.3	-5.2	-0.6	-22.1
Alt 1a	Flow Change	-10.0	-0.6	2.2	1.2	0.0	-2.0	0.0	5.5	-69.8	-45.4	-10.3	-0.1	-10.8
Alt 1c	Flow Change	-10.0	-0.7	0.0	0.3	-0.1	-2.1	0.0	5.4	-78.4	-47.2	-10.9	0.1	-12.0
Alt 8a	Flow Change	-10.0	-0.3	3.2	1.2	-0.1	-2.1	0.0	5.6	-44.9	-37.7	-10.3	0.1	-8.0
Alt 10a	Flow Change	-10.0	-0.4	3.2	1.2	-0.1	-2.0	0.0	5.6	-44.1	-40.0	-10.3	0.1	-8.1
Alt 13a	Flow Change	-10.0	-0.3	3.1	1.2	-0.1	-2.1	0.0	5.6	-56.4	-41.1	-10.7	0.1	-9.2
Percent change in flow from Full Use Existing System														
No Act	% Change	-3%	-2%	-1%	-2%	-1%	-1%	0%	-8%	-9%	-1%	-1%	0%	-4%
Alt 1a	% Change	-3%	0%	1%	0%	0%	0%	0%	2%	-3%	-3%	-1%	0%	-2%
Alt 1c	% Change	-3%	0%	0%	0%	0%	0%	0%	2%	-4%	-3%	-1%	0%	-2%
Alt 8a	% Change	-3%	0%	1%	0%	0%	0%	0%	2%	-2%	-3%	-1%	0%	-1%
Alt 10a	% Change	-3%	0%	1%	0%	0%	0%	0%	2%	-2%	-3%	-1%	0%	-1%
Alt 13a	% Change	-3%	0%	1%	0%	0%	0%	0%	2%	-3%	-3%	-1%	0%	-2%

Table H-3.38. South Boulder Creek at Pinecliffe Gage (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		58.8	35.6	26.4	23.2	21.3	24.8	64.6	363.4	619.8	313.9	151.0	94.1	149.7
No Act	Flow	59.1	35.6	26.4	22.9	21.3	24.8	64.6	370.9	642.5	319.6	152.9	94.5	152.9
Alt 1a	Flow	58.9	36.1	26.8	23.9	22.0	25.1	64.6	389.3	725.8	344.2	156.6	94.4	164.0
Alt 1c	Flow	58.9	36.1	26.8	23.9	22.0	25.1	64.6	389.2	723.3	344.0	156.7	94.4	163.7
Alt 8a	Flow	59.7	36.1	26.8	23.9	22.0	25.1	64.6	389.2	720.1	335.2	152.0	94.5	162.4
Alt 10a	Flow	59.6	36.1	26.8	23.9	22.0	25.1	64.6	389.2	720.1	335.0	152.0	94.5	162.4
Alt 13a	Flow	59.3	36.1	26.8	23.9	22.0	25.1	64.6	389.2	724.0	339.8	154.8	94.3	163.3
Flow change from Full Use Existing System														
No Act	Flow Change	0.3	0.0	0.0	-0.3	0.0	0.0	0.0	7.5	22.7	5.7	2.0	0.4	3.2
Alt 1a	Flow Change	0.1	0.5	0.4	0.6	0.7	0.3	0.0	25.9	106.0	30.3	5.7	0.3	14.2
Alt 1c	Flow Change	0.1	0.5	0.4	0.6	0.7	0.3	0.0	25.8	103.5	30.2	5.7	0.3	14.0
Alt 8a	Flow Change	0.9	0.5	0.4	0.6	0.7	0.3	0.0	25.8	100.3	21.3	1.0	0.4	12.7
Alt 10a	Flow Change	0.8	0.5	0.4	0.6	0.7	0.3	0.0	25.9	100.3	21.2	1.1	0.4	12.7
Alt 13a	Flow Change	0.5	0.5	0.4	0.6	0.7	0.3	0.0	25.9	104.2	26.0	3.9	0.2	13.6
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	-1%	0%	0%	0%	2%	4%	2%	1%	0%	2%
Alt 1a	% Change	0%	1%	2%	3%	3%	1%	0%	7%	17%	10%	4%	0%	10%
Alt 1c	% Change	0%	1%	2%	3%	3%	1%	0%	7%	17%	10%	4%	0%	9%
Alt 8a	% Change	1%	1%	2%	3%	3%	1%	0%	7%	16%	7%	1%	0%	8%
Alt 10a	% Change	1%	1%	2%	3%	3%	1%	0%	7%	16%	7%	1%	0%	8%
Alt 13a	% Change	1%	1%	2%	3%	3%	1%	0%	7%	17%	8%	3%	0%	9%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Full Use Existing System		47.8	29.0	19.9	16.5	16.5	18.1	51.7	263.3	509.2	156.3	100.4	70.6	108.3
No Act	Flow	47.8	29.0	19.9	16.5	16.5	18.1	51.7	263.3	510.3	156.4	100.4	70.6	108.4
Alt 1a	Flow	47.8	29.0	19.9	16.5	16.5	18.1	51.7	263.3	510.3	156.4	100.4	70.6	108.4
Alt 1c	Flow	47.8	29.0	19.9	16.5	16.5	18.1	51.7	263.3	510.3	156.4	100.4	70.6	108.4
Alt 8a	Flow	47.8	29.0	19.9	16.5	16.5	18.1	51.7	263.3	510.3	156.4	100.4	70.6	108.4
Alt 10a	Flow	47.8	29.0	19.9	16.5	16.5	18.1	51.7	263.3	510.3	156.4	100.4	70.6	108.4
Alt 13a	Flow	47.8	29.0	19.9	16.5	16.5	18.1	51.7	263.3	510.3	156.4	100.4	70.6	108.4
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.1
Alt 1a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.1
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.1
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.1
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.1
Alt 13a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.1
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Alt 13a	% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Full Use Existing System		70.3	43.2	33.6	29.6	26.0	27.7	62.9	387.5	474.4	355.9	183.6	122.7	151.5
No Act	Flow	69.7	43.0	33.6	29.6	26.0	27.7	62.9	402.0	515.1	365.7	196.2	125.5	158.1
Alt 1a	Flow	69.8	43.0	33.6	29.6	26.0	27.7	62.9	446.2	627.3	373.5	190.9	125.7	171.4
Alt 1c	Flow	70.3	43.0	33.6	29.6	26.0	27.7	62.9	445.9	624.0	373.4	188.8	125.8	170.9
Alt 8a	Flow	69.8	43.0	33.6	29.6	26.0	27.7	62.9	446.0	623.7	372.8	190.8	125.7	171.0
Alt 10a	Flow	69.8	43.0	33.6	29.6	26.0	27.7	62.9	446.1	624.1	372.8	190.8	125.7	171.0
Alt 13a	Flow	69.8	43.0	33.6	29.6	26.0	27.7	62.9	446.1	626.9	373.0	190.9	125.7	171.3
Flow change from Full Use Existing System														
No Act	Flow Change	-0.6	-0.2	0.0	0.0	0.0	0.0	0.0	14.5	40.6	9.8	12.6	2.9	6.6
Alt 1a	Flow Change	-0.5	-0.2	0.0	0.0	0.0	0.0	0.0	58.7	152.9	17.7	7.3	3.0	19.9
Alt 1c	Flow Change	0.0	-0.2	0.0	0.0	0.0	0.0	0.0	58.4	149.6	17.5	5.2	3.2	19.5
Alt 8a	Flow Change	-0.5	-0.2	0.0	0.0	0.0	0.0	0.0	58.4	149.3	16.9	7.2	3.0	19.5
Alt 10a	Flow Change	-0.5	-0.2	0.0	0.0	0.0	0.0	0.0	58.6	149.7	17.0	7.2	3.0	19.6
Alt 13a	Flow Change	-0.5	-0.2	0.0	0.0	0.0	0.0	0.0	58.6	152.5	17.1	7.3	3.0	19.8
Percent change in flow from Full Use Existing System														
No Act	% Change	-1%	0%	0%	0%	0%	0%	0%	4%	9%	3%	7%	2%	4%
Alt 1a	% Change	-1%	0%	0%	0%	0%	0%	0%	15%	32%	5%	4%	2%	13%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	0%	15%	32%	5%	3%	3%	13%
Alt 8a	% Change	-1%	0%	0%	0%	0%	0%	0%	15%	31%	5%	4%	2%	13%
Alt 10a	% Change	-1%	0%	0%	0%	0%	0%	0%	15%	32%	5%	4%	2%	13%
Alt 13a	% Change	-1%	0%	0%	0%	0%	0%	0%	15%	32%	5%	4%	2%	13%

Table H-3.39. Gross Reservoir Outflow (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		88.4	44.5	28.3	10.2	10.2	121.8	96.5	285.1	458.9	391.6	215.6	128.8	156.6
No Act	Flow	90.8	46.6	29.3	10.2	10.2	128.4	96.6	289.1	471.2	397.5	217.7	130.1	159.8
Alt 1a	Flow	118.9	97.1	98.8	98.2	95.8	96.0	132.4	220.8	398.2	349.1	209.4	131.9	170.5
Alt 1c	Flow	119.1	97.3	97.3	94.2	91.8	91.1	121.7	229.1	413.4	351.3	208.4	132.6	170.6
Alt 8a	Flow	117.4	94.9	96.9	95.6	92.9	92.5	129.6	220.8	397.7	349.9	210.1	131.9	169.2
Alt 10a	Flow	117.4	94.8	96.7	95.6	92.8	92.7	129.7	220.9	397.7	350.1	210.1	131.5	169.2
Alt 13a	Flow	117.4	95.7	98.0	98.1	95.6	95.2	131.1	221.8	397.4	349.0	209.4	131.3	170.0
Flow change from Full Use Existing System														
No Act	Flow Change	2.4	2.2	1.0	0.0	0.0	6.6	0.1	4.1	12.3	5.9	2.1	1.3	3.2
Alt 1a	Flow Change	30.4	52.6	70.6	88.0	85.5	-25.8	35.9	-64.3	-60.7	-42.5	-6.2	3.1	13.9
Alt 1c	Flow Change	30.7	52.8	69.0	84.0	81.6	-30.7	25.2	-56.0	-45.5	-40.3	-7.3	3.8	14.0
Alt 8a	Flow Change	29.0	50.4	68.6	85.5	82.6	-29.3	33.1	-64.3	-61.2	-41.7	-5.5	3.1	12.5
Alt 10a	Flow Change	28.9	50.4	68.4	85.4	82.6	-29.2	33.2	-64.2	-61.2	-41.5	-5.6	2.7	12.5
Alt 13a	Flow Change	29.0	51.2	69.7	87.9	85.4	-26.6	34.6	-63.3	-61.5	-42.6	-6.2	2.5	13.3
Percent change in flow from Full Use Existing System														
No Act	% Change	3%	5%	4%	0%	0%	5%	0%	1%	3%	2%	1%	1%	2%
Alt 1a	% Change	34%	118%	250%	865%	835%	-21%	37%	-23%	-13%	-11%	-3%	2%	9%
Alt 1c	% Change	35%	119%	244%	825%	797%	-25%	26%	-20%	-10%	-10%	-3%	3%	9%
Alt 8a	% Change	33%	113%	243%	839%	807%	-24%	34%	-23%	-13%	-11%	-3%	2%	8%
Alt 10a	% Change	33%	113%	242%	839%	807%	-24%	34%	-23%	-13%	-11%	-3%	2%	8%
Alt 13a	% Change	33%	115%	247%	864%	834%	-22%	36%	-22%	-13%	-11%	-3%	2%	9%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Full Use Existing System		81.5	41.6	25.5	7.9	7.5	120.1	61.4	230.5	345.0	238.7	165.9	109.7	119.6
No Act	Flow	85.9	44.6	27.1	7.9	7.5	131.0	66.5	236.1	341.9	235.8	162.8	111.8	121.6
Alt 1a	Flow	109.2	90.7	92.9	93.0	89.1	88.1	111.6	210.8	299.9	198.4	159.9	129.4	139.4
Alt 1c	Flow	109.5	91.4	93.1	91.9	88.6	87.7	110.8	212.4	304.8	190.6	155.8	129.4	138.8
Alt 8a	Flow	109.2	90.7	93.0	93.0	89.1	87.8	111.6	211.1	298.6	192.1	152.6	117.5	137.2
Alt 10a	Flow	109.2	90.7	93.0	93.0	89.1	87.9	111.6	211.1	298.6	192.2	152.7	117.7	137.2
Alt 13a	Flow	109.2	90.6	93.0	93.0	89.1	87.9	111.6	211.1	298.8	192.8	153.3	118.7	137.4
Flow change from Full Use Existing System														
No Act	Flow Change	4.4	3.0	1.6	0.0	0.0	10.9	5.1	5.6	-3.1	-2.9	-3.1	2.0	2.0
Alt 1a	Flow Change	27.7	49.0	67.5	85.1	81.6	-32.0	50.3	-19.8	-45.1	-40.4	-5.9	19.7	19.8
Alt 1c	Flow Change	27.9	49.7	67.6	84.0	81.1	-32.4	49.4	-18.1	-40.2	-48.2	-10.1	19.7	19.2
Alt 8a	Flow Change	27.6	49.0	67.6	85.1	81.6	-32.3	50.3	-19.4	-46.4	-46.6	-13.3	7.8	17.6
Alt 10a	Flow Change	27.6	49.0	67.6	85.1	81.6	-32.2	50.2	-19.4	-46.4	-46.6	-13.2	8.0	17.6
Alt 13a	Flow Change	27.6	49.0	67.6	85.1	81.6	-32.2	50.2	-19.4	-46.2	-46.0	-12.6	9.0	17.8
Percent change in flow from Full Use Existing System														
No Act	% Change	5%	7%	6%	0%	0%	9%	8%	2%	-1%	-1%	-2%	2%	2%
Alt 1a	% Change	34%	118%	265%	1083%	1088%	-27%	82%	-9%	-13%	-17%	-4%	18%	17%
Alt 1c	% Change	34%	120%	265%	1069%	1081%	-27%	81%	-8%	-12%	-20%	-6%	18%	16%
Alt 8a	% Change	34%	118%	265%	1083%	1088%	-27%	82%	-8%	-13%	-20%	-8%	7%	15%
Alt 10a	% Change	34%	118%	265%	1083%	1088%	-27%	82%	-8%	-13%	-20%	-8%	7%	15%
Alt 13a	% Change	34%	118%	265%	1083%	1088%	-27%	82%	-8%	-13%	-19%	-8%	8%	15%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Full Use Existing System		103.3	45.6	30.2	12.3	11.7	121.1	78.1	199.5	420.0	395.9	260.5	168.8	153.9
No Act	Flow	105.3	48.8	31.8	12.3	11.7	131.9	78.3	201.8	435.1	410.2	273.2	175.1	159.6
Alt 1a	Flow	124.6	95.7	97.3	96.8	93.7	90.9	94.5	158.9	412.1	407.1	260.8	172.2	175.4
Alt 1c	Flow	125.9	96.4	97.2	96.9	94.1	91.2	96.4	162.5	408.4	406.1	255.5	171.9	175.2
Alt 8a	Flow	127.9	95.7	97.3	96.8	93.7	90.9	94.4	158.9	411.8	406.2	261.6	172.5	175.6
Alt 10a	Flow	127.9	95.7	97.3	96.8	93.7	90.9	94.6	158.9	412.2	407.4	260.9	171.7	175.7
Alt 13a	Flow	126.0	95.7	97.3	96.8	93.7	90.9	96.1	158.9	412.0	406.6	261.5	172.0	175.6
Flow change from Full Use Existing System														
No Act	Flow Change	2.1	3.2	1.6	0.0	0.0	10.8	0.1	2.3	15.1	14.3	12.7	6.3	5.7
Alt 1a	Flow Change	21.3	50.1	67.1	84.5	82.1	-30.2	16.4	-40.6	-7.9	11.2	0.3	3.4	21.5
Alt 1c	Flow Change	22.6	50.8	67.1	84.6	82.5	-29.9	18.3	-37.0	-11.7	10.2	-5.0	3.1	21.3
Alt 8a	Flow Change	24.6	50.1	67.1	84.5	82.1	-30.2	16.2	-40.6	-8.2	10.3	1.0	3.7	21.7
Alt 10a	Flow Change	24.7	50.1	67.1	84.5	82.1	-30.2	16.4	-40.6	-7.8	11.5	0.4	3.0	21.8
Alt 13a	Flow Change	22.8	50.1	67.1	84.5	82.1	-30.2	17.9	-40.6	-8.0	10.7	0.9	3.2	21.7
Percent change in flow from Full Use Existing System														
No Act	% Change	2%	7%	5%	0%	0%	9%	0%	1%	4%	4%	5%	4%	4%
Alt 1a	% Change	21%	110%	223%	687%	704%	-25%	21%	-20%	-2%	3%	0%	2%	14%
Alt 1c	% Change	22%	111%	222%	688%	708%	-25%	23%	-19%	-3%	3%	-2%	2%	14%
Alt 8a	% Change	24%	110%	223%	687%	704%	-25%	21%	-20%	-2%	3%	0%	2%	14%
Alt 10a	% Change	24%	110%	223%	687%	704%	-25%	21%	-20%	-2%	3%	0%	2%	14%
Alt 13a	% Change	22%	110%	223%	687%	704%	-25%	23%	-20%	-2%	3%	0%	2%	14%

Table H-3.40. South Boulder Creek near Eldorado Springs Gage (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		20.7	15.5	11.9	9.7	10.3	16.8	43.7	156.0	277.5	129.8	48.7	25.7	63.8
No Act	Flow	20.7	15.5	11.9	9.7	10.3	16.8	43.7	154.0	275.3	129.9	48.8	25.7	63.5
Alt 1a	Flow	20.9	16.0	12.5	10.5	11.1	16.6	43.9	148.1	266.2	129.7	48.7	25.7	62.5
Alt 1c	Flow	20.9	16.0	12.5	10.5	11.0	16.5	43.9	148.1	265.8	129.7	48.7	25.7	62.4
Alt 8a	Flow	20.9	15.9	12.5	10.5	11.0	16.5	43.9	148.1	266.2	129.6	48.7	25.7	62.5
Alt 10a	Flow	20.9	15.9	12.5	10.5	11.0	16.5	43.9	148.1	266.3	129.6	48.7	25.7	62.5
Alt 13a	Flow	20.9	16.0	12.5	10.5	11.0	16.6	43.9	148.1	266.2	129.6	48.7	25.7	62.5
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.1	0.0	-2.0	-2.3	0.1	0.0	0.0	-0.3
Alt 1a	Flow Change	0.3	0.5	0.6	0.8	0.8	-0.2	0.2	-7.9	-11.4	-0.1	0.0	0.0	-1.4
Alt 1c	Flow Change	0.3	0.5	0.6	0.8	0.8	-0.3	0.2	-7.9	-11.8	-0.1	0.0	0.0	-1.4
Alt 8a	Flow Change	0.3	0.5	0.6	0.8	0.8	-0.3	0.2	-7.9	-11.3	-0.2	0.0	0.0	-1.4
Alt 10a	Flow Change	0.3	0.5	0.6	0.8	0.8	-0.2	0.2	-7.9	-11.3	-0.2	0.0	0.0	-1.4
Alt 13a	Flow Change	0.3	0.5	0.6	0.8	0.8	-0.2	0.2	-7.9	-11.4	-0.2	0.0	0.0	-1.4
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	0%	0%	-1%	-1%	0%	0%	0%	-1%
Alt 1a	% Change	1%	3%	5%	8%	8%	-1%	1%	-5%	-4%	0%	0%	0%	-2%
Alt 1c	% Change	1%	3%	5%	8%	7%	-2%	0%	-5%	-4%	0%	0%	0%	-2%
Alt 8a	% Change	1%	3%	5%	8%	7%	-1%	1%	-5%	-4%	0%	0%	0%	-2%
Alt 10a	% Change	1%	3%	5%	8%	7%	-1%	1%	-5%	-4%	0%	0%	0%	-2%
Alt 13a	% Change	1%	3%	5%	8%	8%	-1%	1%	-5%	-4%	0%	0%	0%	-2%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Full Use Existing System		14.6	11.2	8.6	6.9	7.6	11.0	29.2	106.5	183.6	52.6	28.5	22.1	40.2
No Act	Flow	14.6	11.2	8.6	6.9	7.6	11.1	29.3	106.5	183.6	52.6	28.4	22.1	40.2
Alt 1a	Flow	14.8	11.6	9.2	7.6	8.3	10.7	29.6	106.5	183.4	52.3	28.4	22.3	40.4
Alt 1c	Flow	14.8	11.7	9.2	7.6	8.3	10.7	29.6	106.5	183.4	52.2	28.3	22.3	40.4
Alt 8a	Flow	14.8	11.6	9.2	7.6	8.3	10.7	29.6	106.5	183.4	52.3	28.3	22.2	40.4
Alt 10a	Flow	14.8	11.6	9.2	7.6	8.3	10.7	29.6	106.5	183.4	52.3	28.3	22.2	40.4
Alt 13a	Flow	14.8	11.6	9.2	7.6	8.3	10.7	29.6	106.5	183.4	52.3	28.3	22.2	40.4
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Alt 1a	Flow Change	0.2	0.4	0.6	0.8	0.7	-0.3	0.4	0.0	-0.2	-0.3	-0.1	0.2	0.2
Alt 1c	Flow Change	0.2	0.5	0.6	0.8	0.7	-0.3	0.4	0.0	-0.2	-0.3	-0.1	0.2	0.2
Alt 8a	Flow Change	0.2	0.4	0.6	0.8	0.7	-0.3	0.4	0.0	-0.3	-0.3	-0.1	0.1	0.2
Alt 10a	Flow Change	0.2	0.4	0.6	0.8	0.7	-0.3	0.4	0.0	-0.3	-0.3	-0.1	0.1	0.2
Alt 13a	Flow Change	0.2	0.4	0.6	0.8	0.7	-0.3	0.4	0.0	-0.3	-0.3	-0.1	0.1	0.2
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Alt 1a	% Change	2%	4%	7%	11%	10%	-3%	1%	0%	0%	-1%	0%	1%	1%
Alt 1c	% Change	2%	4%	7%	11%	10%	-3%	1%	0%	0%	-1%	0%	1%	0%
Alt 8a	% Change	2%	4%	7%	11%	10%	-3%	1%	0%	0%	-1%	0%	0%	0%
Alt 10a	% Change	2%	4%	7%	11%	10%	-3%	1%	0%	0%	-1%	0%	0%	0%
Alt 13a	% Change	2%	4%	7%	11%	10%	-3%	1%	0%	0%	-1%	0%	0%	0%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Full Use Existing System		26.2	20.6	15.4	12.0	11.8	19.8	45.3	169.7	326.2	188.4	67.3	31.0	77.8
No Act	Flow	26.3	20.7	15.4	12.0	11.8	19.9	45.3	164.0	320.0	188.5	67.6	31.1	76.9
Alt 1a	Flow	26.4	21.1	16.0	12.8	12.5	19.5	45.3	141.7	301.9	188.3	67.4	31.1	73.7
Alt 1c	Flow	26.4	21.1	16.0	12.8	12.5	19.5	45.3	141.8	300.7	188.4	67.3	31.1	73.6
Alt 8a	Flow	26.4	21.1	16.0	12.8	12.5	19.5	45.3	141.7	302.0	188.3	67.4	31.1	73.7
Alt 10a	Flow	26.4	21.1	16.0	12.8	12.5	19.5	45.3	141.7	301.8	188.3	67.4	31.1	73.7
Alt 13a	Flow	26.4	21.1	16.0	12.8	12.5	19.5	45.4	141.7	301.9	188.3	67.4	31.1	73.7
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.0	0.0	0.0	0.0	0.1	0.0	-5.8	-6.2	0.0	0.2	0.1	-1.0
Alt 1a	Flow Change	0.2	0.4	0.6	0.8	0.7	-0.3	0.1	-28.0	-24.3	-0.1	0.1	0.1	-4.1
Alt 1c	Flow Change	0.2	0.5	0.6	0.8	0.7	-0.3	0.1	-27.9	-25.5	-0.1	0.0	0.1	-4.2
Alt 8a	Flow Change	0.2	0.4	0.6	0.8	0.7	-0.3	0.1	-28.0	-24.2	-0.1	0.1	0.1	-4.1
Alt 10a	Flow Change	0.2	0.4	0.6	0.8	0.7	-0.3	0.1	-28.0	-24.4	-0.1	0.1	0.1	-4.2
Alt 13a	Flow Change	0.2	0.4	0.6	0.8	0.7	-0.3	0.1	-28.0	-24.3	-0.1	0.1	0.1	-4.1
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	0%	0%	0%	1%	0%	-3%	-2%	0%	0%	0%	-1%
Alt 1a	% Change	1%	2%	4%	6%	6%	-1%	0%	-17%	-7%	0%	0%	0%	-5%
Alt 1c	% Change	1%	2%	4%	6%	6%	-1%	0%	-16%	-8%	0%	0%	0%	-5%
Alt 8a	% Change	1%	2%	4%	6%	6%	-1%	0%	-17%	-7%	0%	0%	0%	-5%
Alt 10a	% Change	1%	2%	4%	6%	6%	-1%	0%	-17%	-7%	0%	0%	0%	-5%
Alt 13a	% Change	1%	2%	4%	6%	6%	-1%	0%	-17%	-7%	0%	0%	0%	-5%

Table H-3.41. North Fork South Platte River below Geneva Creek Gage (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		204.6	114.8	113.8	97.1	96.9	87.5	123.1	193.5	355.7	318.3	332.1	340.4	198.2
No Act	Flow	218.0	120.0	122.2	107.1	107.2	96.9	132.8	202.4	364.2	343.1	361.6	366.1	211.8
Alt 1a	Flow	200.8	86.4	82.2	68.8	68.0	63.8	112.2	248.9	403.5	380.4	375.0	362.4	204.4
Alt 1c	Flow	200.9	86.6	82.3	68.7	68.2	63.9	112.0	249.0	403.7	381.3	378.4	364.3	204.9
Alt 8a	Flow	200.7	86.6	82.3	69.3	68.4	64.1	111.3	247.9	402.0	379.0	372.9	360.3	203.7
Alt 10a	Flow	200.4	86.6	82.3	69.3	68.4	64.0	111.4	248.3	402.2	378.9	372.8	360.7	203.8
Alt 13a	Flow	200.2	86.2	82.0	68.5	68.2	63.6	111.6	248.9	402.7	380.9	373.6	361.3	204.0
Flow change from Full Use Existing System														
No Act	Flow Change	13.4	5.2	8.3	10.0	10.4	9.5	9.7	8.8	8.5	24.8	29.5	25.6	13.6
Alt 1a	Flow Change	-3.8	-28.4	-31.7	-28.3	-28.9	-23.7	-10.9	55.4	47.8	62.2	42.9	21.9	6.2
Alt 1c	Flow Change	-3.7	-28.2	-31.5	-28.5	-28.7	-23.6	-11.1	55.4	48.0	63.0	46.3	23.9	6.8
Alt 8a	Flow Change	-3.9	-28.2	-31.6	-27.8	-28.5	-23.4	-11.8	54.4	46.3	60.7	40.8	19.9	5.6
Alt 10a	Flow Change	-4.2	-28.2	-31.5	-27.8	-28.5	-23.5	-11.7	54.8	46.5	60.7	40.7	20.2	5.6
Alt 13a	Flow Change	-4.4	-28.7	-31.8	-28.6	-28.7	-23.9	-11.5	55.3	46.9	62.6	41.4	20.9	5.8
Percent change in flow from Full Use Existing System														
No Act	% Change	7%	5%	7%	10%	11%	11%	8%	5%	2%	8%	9%	8%	7%
Alt 1a	% Change	-2%	-25%	-28%	-29%	-30%	-27%	-9%	29%	13%	20%	13%	6%	3%
Alt 1c	% Change	-2%	-25%	-28%	-29%	-30%	-27%	-9%	29%	13%	20%	14%	7%	3%
Alt 8a	% Change	-2%	-25%	-28%	-29%	-29%	-27%	-10%	28%	13%	19%	12%	6%	3%
Alt 10a	% Change	-2%	-25%	-28%	-29%	-29%	-27%	-10%	28%	13%	19%	12%	6%	3%
Alt 13a	% Change	-2%	-25%	-28%	-29%	-30%	-27%	-9%	29%	13%	20%	12%	6%	3%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Full Use Existing System		277.3	132.9	133.9	103.9	114.4	105.7	279.2	319.6	436.5	413.9	388.2	346.1	254.3
No Act	Flow	298.9	138.8	143.9	112.4	125.0	116.5	290.8	324.8	453.4	430.0	385.5	325.0	262.1
Alt 1a	Flow	281.7	101.7	104.3	77.1	89.2	75.5	268.4	373.7	506.1	487.0	402.8	327.3	257.9
Alt 1c	Flow	281.1	101.7	104.2	77.0	89.5	75.5	268.1	373.4	505.2	485.3	402.4	327.0	257.5
Alt 8a	Flow	282.6	101.9	104.3	77.4	89.4	75.5	267.7	373.5	505.5	486.6	402.9	328.2	257.9
Alt 10a	Flow	281.6	102.3	104.2	77.0	89.1	75.7	268.1	373.8	505.8	485.8	402.5	327.7	257.8
Alt 13a	Flow	279.0	101.8	104.3	77.0	89.7	75.8	268.1	374.7	506.5	486.4	403.6	328.1	257.9
Flow change from Full Use Existing System														
No Act	Flow Change	21.6	5.9	10.0	8.4	10.6	10.8	11.6	5.2	16.8	16.0	-2.8	-21.1	7.8
Alt 1a	Flow Change	4.4	-31.2	-29.7	-26.9	-25.2	-30.2	-10.8	54.1	69.6	73.1	14.5	-18.8	3.6
Alt 1c	Flow Change	3.8	-31.3	-29.7	-26.9	-25.0	-30.2	-11.1	53.8	68.6	71.3	14.1	-19.1	3.2
Alt 8a	Flow Change	5.3	-31.0	-29.7	-26.6	-25.1	-30.1	-11.5	53.9	69.0	72.7	14.6	-17.8	3.6
Alt 10a	Flow Change	4.4	-30.7	-29.7	-27.0	-25.4	-30.0	-11.1	54.2	69.3	71.8	14.3	-18.3	3.5
Alt 13a	Flow Change	1.7	-31.1	-29.7	-26.9	-24.7	-29.9	-11.1	55.1	70.0	72.5	15.3	-18.0	3.6
Percent change in flow from Full Use Existing System														
No Act	% Change	8%	4%	7%	8%	9%	10%	4%	2%	4%	4%	-1%	-6%	3%
Alt 1a	% Change	2%	-23%	-22%	-26%	-22%	-29%	-4%	17%	16%	18%	4%	-5%	1%
Alt 1c	% Change	1%	-24%	-22%	-26%	-22%	-29%	-4%	17%	16%	17%	4%	-6%	1%
Alt 8a	% Change	2%	-23%	-22%	-26%	-22%	-29%	-4%	17%	16%	18%	4%	-5%	1%
Alt 10a	% Change	2%	-23%	-22%	-26%	-22%	-28%	-4%	17%	16%	17%	4%	-5%	1%
Alt 13a	% Change	1%	-23%	-22%	-26%	-22%	-28%	-4%	17%	16%	18%	4%	-5%	1%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Full Use Existing System		176.8	97.4	97.5	82.5	98.8	69.9	68.4	167.1	350.6	247.5	235.2	256.0	162.3
No Act	Flow	200.2	105.9	111.1	97.3	108.9	78.6	72.6	174.1	354.4	253.5	238.7	280.3	173.0
Alt 1a	Flow	189.9	75.3	71.7	52.4	62.0	48.9	59.2	181.7	353.0	253.7	267.7	284.5	158.3
Alt 1c	Flow	189.1	75.9	71.8	52.4	62.1	48.9	57.6	182.1	353.1	253.8	270.6	289.0	158.9
Alt 8a	Flow	187.2	75.6	71.7	52.3	62.3	49.1	59.2	181.7	353.0	253.0	268.4	283.7	158.1
Alt 10a	Flow	187.0	75.6	71.7	52.3	62.3	48.9	59.7	181.6	353.0	253.9	267.3	285.5	158.2
Alt 13a	Flow	189.7	75.2	71.7	52.4	62.1	47.2	59.4	181.5	353.0	253.1	266.5	286.5	158.2
Flow change from Full Use Existing System														
No Act	Flow Change	23.3	8.6	13.6	14.8	10.1	8.7	4.3	7.0	3.8	5.9	3.5	24.3	10.7
Alt 1a	Flow Change	13.0	-22.1	-25.8	-30.0	-36.9	-21.0	-9.1	14.7	2.4	6.1	32.5	28.5	-4.0
Alt 1c	Flow Change	12.3	-21.4	-25.7	-30.1	-36.7	-21.0	-10.8	15.0	2.5	6.3	35.4	33.0	-3.4
Alt 8a	Flow Change	10.4	-21.8	-25.8	-30.2	-36.5	-20.8	-9.2	14.6	2.4	5.4	33.1	27.7	-4.2
Alt 10a	Flow Change	10.2	-21.7	-25.8	-30.2	-36.5	-21.0	-8.7	14.5	2.5	6.4	32.1	29.5	-4.1
Alt 13a	Flow Change	12.8	-22.2	-25.8	-30.0	-36.7	-22.7	-9.0	14.5	2.4	5.6	31.2	30.6	-4.1
Percent change in flow from Full Use Existing System														
No Act	% Change	13%	9%	14%	18%	10%	13%	6%	4%	1%	2%	1%	9%	7%
Alt 1a	% Change	7%	-23%	-26%	-36%	-37%	-30%	-13%	9%	1%	2%	14%	11%	-2%
Alt 1c	% Change	7%	-22%	-26%	-36%	-37%	-30%	-16%	9%	1%	3%	15%	13%	-2%
Alt 8a	% Change	6%	-22%	-26%	-37%	-37%	-30%	-13%	9%	1%	2%	14%	11%	-3%
Alt 10a	% Change	6%	-22%	-26%	-37%	-37%	-30%	-13%	9%	1%	3%	14%	12%	-3%
Alt 13a	% Change	7%	-23%	-26%	-36%	-37%	-32%	-13%	9%	1%	2%	13%	12%	-3%

Table H-3.42. Antero Reservoir Outflow (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		15.5	14.7	12.7	11.5	10.5	14.5	23.7	50.1	100.9	56.3	32.4	16.5	29.9
No Act	Flow	17.7	15.3	14.0	12.2	10.9	14.6	24.7	49.7	99.2	55.8	30.3	16.0	30.0
Alt 1a	Flow	15.6	14.1	12.5	11.7	11.1	14.5	23.7	49.8	100.7	55.5	32.2	18.2	30.0
Alt 1c	Flow	15.6	14.2	12.5	11.6	11.1	14.5	23.7	49.8	100.7	55.5	32.2	18.1	30.0
Alt 8a	Flow	15.6	14.2	12.5	11.7	11.1	14.5	23.7	50.1	100.6	55.5	32.2	18.0	30.0
Alt 10a	Flow	15.6	14.2	12.5	11.7	11.1	14.5	23.7	50.1	100.5	55.5	32.1	18.1	30.0
Alt 13a	Flow	15.6	14.1	12.6	11.6	11.0	14.5	23.7	49.9	100.7	55.4	32.1	18.3	30.0
Flow change from Full Use Existing System														
No Act	Flow Change	2.2	0.5	1.3	0.7	0.5	0.1	1.0	-0.4	-1.7	-0.5	-2.1	-0.5	0.1
Alt 1a	Flow Change	0.2	-0.6	-0.2	0.1	0.7	-0.1	0.0	-0.3	-0.2	-0.8	-0.3	1.7	0.0
Alt 1c	Flow Change	0.2	-0.5	-0.2	0.1	0.7	0.0	0.1	-0.3	-0.2	-0.8	-0.2	1.6	0.0
Alt 8a	Flow Change	0.2	-0.5	-0.2	0.1	0.7	0.0	0.1	0.0	-0.4	-0.8	-0.3	1.5	0.0
Alt 10a	Flow Change	0.2	-0.5	-0.2	0.2	0.7	0.0	0.1	0.0	-0.4	-0.8	-0.4	1.6	0.0
Alt 13a	Flow Change	0.1	-0.6	-0.1	0.1	0.6	-0.1	0.1	-0.2	-0.2	-0.9	-0.3	1.7	0.0
Percent change in flow from Full Use Existing System														
No Act	% Change	14%	3%	10%	6%	5%	1%	4%	-1%	-2%	-1%	-7%	-3%	0%
Alt 1a	% Change	1%	-4%	-1%	1%	7%	0%	0%	-1%	0%	-1%	-1%	10%	0%
Alt 1c	% Change	1%	-4%	-2%	1%	6%	0%	0%	-1%	0%	-1%	-1%	10%	0%
Alt 8a	% Change	1%	-4%	-2%	1%	6%	0%	0%	0%	0%	-1%	-1%	9%	0%
Alt 10a	% Change	1%	-4%	-2%	2%	6%	0%	0%	0%	0%	-1%	-1%	9%	0%
Alt 13a	% Change	1%	-4%	-1%	1%	6%	0%	0%	0%	0%	-2%	-1%	11%	0%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Full Use Existing System		14.1	12.6	9.3	6.8	6.7	13.8	9.9	21.2	24.0	11.0	16.5	5.8	12.6
No Act	Flow	14.2	12.6	9.3	6.8	6.9	13.5	9.9	18.7	26.2	12.8	13.1	7.0	12.6
Alt 1a	Flow	14.1	12.6	9.3	6.9	7.0	13.4	9.9	20.3	25.0	11.1	16.5	10.0	13.0
Alt 1c	Flow	14.0	12.6	9.3	6.9	6.9	13.5	9.9	20.4	25.0	11.1	17.3	9.2	13.0
Alt 8a	Flow	14.0	12.6	9.3	6.9	6.8	13.5	9.9	20.4	25.0	11.1	16.1	9.7	12.9
Alt 10a	Flow	14.0	12.6	9.3	6.9	6.8	13.6	9.9	20.4	25.0	11.1	15.6	10.2	12.9
Alt 13a	Flow	14.0	12.6	9.3	6.9	6.8	13.5	9.9	20.4	25.0	11.2	16.0	9.9	12.9
Flow change from Full Use Existing System														
No Act	Flow Change	0.1	0.0	0.0	0.0	0.2	-0.2	0.0	-2.5	2.2	1.9	-3.4	1.2	0.0
Alt 1a	Flow Change	0.0	0.0	0.0	0.1	0.3	-0.4	0.0	-0.9	1.0	0.2	0.1	4.2	0.4
Alt 1c	Flow Change	-0.1	0.0	0.0	0.1	0.2	-0.3	0.0	-0.8	0.9	0.1	0.8	3.3	0.4
Alt 8a	Flow Change	-0.1	0.0	0.0	0.0	0.2	-0.2	0.0	-0.8	1.0	0.2	-0.4	3.9	0.3
Alt 10a	Flow Change	-0.1	0.0	0.0	0.0	0.2	-0.2	0.0	-0.8	1.0	0.2	-0.8	4.4	0.3
Alt 13a	Flow Change	-0.1	0.0	0.0	0.0	0.2	-0.2	0.0	-0.8	1.0	0.2	-0.5	4.0	0.3
Percent change in flow from Full Use Existing System														
No Act	% Change	1%	0%	0%	0%	4%	-2%	0%	-12%	9%	17%	-20%	21%	0%
Alt 1a	% Change	0%	0%	0%	1%	5%	-3%	0%	-4%	4%	1%	0%	72%	3%
Alt 1c	% Change	0%	0%	0%	1%	3%	-2%	0%	-4%	4%	1%	5%	57%	3%
Alt 8a	% Change	-1%	0%	0%	1%	3%	-2%	0%	-4%	4%	1%	-2%	68%	3%
Alt 10a	% Change	-1%	0%	0%	0%	3%	-1%	0%	-4%	4%	1%	-5%	76%	3%
Alt 13a	% Change	0%	0%	0%	1%	3%	-2%	0%	-4%	4%	2%	-3%	70%	3%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Full Use Existing System		18.4	15.3	14.3	11.4	11.3	17.7	42.1	79.9	159.0	102.2	59.4	26.3	46.4
No Act	Flow	18.4	15.4	14.3	11.4	11.3	17.7	42.1	79.9	159.0	102.2	59.4	26.1	46.4
Alt 1a	Flow	18.4	15.4	14.3	11.4	11.3	17.7	42.1	79.9	159.0	102.2	59.4	26.1	46.4
Alt 1c	Flow	18.4	15.4	14.3	11.4	11.3	17.7	42.1	79.9	159.0	102.2	59.4	26.1	46.4
Alt 8a	Flow	18.4	15.4	14.3	11.4	11.3	17.7	42.1	79.9	159.0	102.2	59.4	26.1	46.4
Alt 10a	Flow	18.4	15.5	14.3	11.4	11.3	17.7	42.1	79.9	159.0	102.2	59.4	26.1	46.4
Alt 13a	Flow	18.4	15.4	14.3	11.4	11.3	17.7	42.1	79.9	159.0	102.2	59.4	26.1	46.4
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0
Alt 1a	Flow Change	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0
Alt 1c	Flow Change	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0
Alt 8a	Flow Change	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0
Alt 10a	Flow Change	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0
Alt 13a	Flow Change	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%
Alt 1a	% Change	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%
Alt 1c	% Change	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%
Alt 8a	% Change	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%
Alt 10a	% Change	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%
Alt 13a	% Change	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%	0%

Table H-3.43. Eleven Mile Canyon Reservoir Outflow (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		114.9	88.9	75.0	73.2	76.7	97.6	139.5	152.0	264.3	259.2	241.8	156.8	145.0
No Act	Flow	117.5	90.3	77.6	74.2	76.6	98.9	143.6	154.1	261.9	256.1	238.2	156.6	145.5
Alt 1a	Flow	114.1	87.2	73.5	73.3	76.0	94.7	136.4	155.0	268.0	260.5	241.3	160.1	145.0
Alt 1c	Flow	114.1	87.4	73.4	73.2	75.9	94.6	136.2	155.3	267.4	261.0	241.9	160.0	145.0
Alt 8a	Flow	114.1	87.4	73.4	73.4	76.0	95.2	136.2	155.4	267.7	261.0	241.0	159.5	145.0
Alt 10a	Flow	113.9	87.3	73.3	73.5	76.1	94.8	136.1	155.4	267.8	261.1	241.0	159.4	145.0
Alt 13a	Flow	113.9	87.1	73.6	73.3	75.9	94.6	136.1	154.9	268.0	259.9	241.3	160.1	144.9
Flow change from Full Use Existing System														
No Act	Flow Change	2.6	1.4	2.6	1.0	-0.1	1.3	4.2	2.1	-2.4	-3.2	-3.5	-0.1	0.5
Alt 1a	Flow Change	-0.8	-1.6	-1.5	0.1	-0.7	-2.9	-3.1	3.0	3.7	1.3	-0.5	3.4	0.0
Alt 1c	Flow Change	-0.8	-1.5	-1.6	0.0	-0.8	-3.0	-3.2	3.3	3.1	1.8	0.1	3.2	0.1
Alt 8a	Flow Change	-0.8	-1.4	-1.6	0.2	-0.7	-2.4	-3.3	3.3	3.4	1.8	-0.7	2.8	0.0
Alt 10a	Flow Change	-1.0	-1.5	-1.6	0.3	-0.6	-2.8	-3.3	3.4	3.5	1.9	-0.8	2.6	0.0
Alt 13a	Flow Change	-1.0	-1.8	-1.4	0.1	-0.8	-3.0	-3.3	2.9	3.7	0.7	-0.4	3.3	-0.1
Percent change in flow from Full Use Existing System														
No Act	% Change	2%	2%	4%	1%	0%	1%	3%	1%	-1%	-1%	-1%	0%	0%
Alt 1a	% Change	-1%	-2%	-2%	0%	-1%	-3%	-2%	2%	1%	1%	0%	2%	0%
Alt 1c	% Change	-1%	-2%	-2%	0%	-1%	-3%	-2%	2%	1%	1%	0%	2%	0%
Alt 8a	% Change	-1%	-2%	-2%	0%	-1%	-2%	-2%	2%	1%	1%	0%	2%	0%
Alt 10a	% Change	-1%	-2%	-2%	0%	-1%	-3%	-2%	2%	1%	1%	0%	2%	0%
Alt 13a	% Change	-1%	-2%	-2%	0%	-1%	-3%	-2%	2%	1%	0%	0%	2%	0%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Full Use Existing System		111.0	96.0	76.8	70.8	77.1	96.3	119.5	146.8	174.0	203.7	192.6	170.5	127.9
No Act	Flow	112.1	96.5	77.4	71.6	74.8	98.8	119.4	140.9	181.6	206.5	212.4	176.8	130.7
Alt 1a	Flow	111.9	96.0	76.8	70.2	76.1	98.4	119.0	143.7	178.6	204.6	195.7	173.6	128.7
Alt 1c	Flow	111.8	96.0	76.7	70.2	76.0	98.5	119.0	143.7	178.5	204.6	197.1	173.4	128.8
Alt 8a	Flow	112.0	96.0	76.8	70.2	76.0	98.6	119.0	143.8	178.8	205.0	194.7	172.9	128.7
Alt 10a	Flow	111.8	96.0	76.8	70.2	76.0	98.5	119.0	143.7	178.5	204.8	193.7	173.0	128.5
Alt 13a	Flow	111.6	95.9	76.8	70.2	75.9	98.5	118.9	143.2	178.0	204.2	194.6	173.5	128.4
Flow change from Full Use Existing System														
No Act	Flow Change	1.1	0.4	0.6	0.8	-2.3	2.6	-0.2	-5.9	7.6	2.8	19.8	6.3	2.8
Alt 1a	Flow Change	0.9	0.0	0.0	-0.6	-1.0	2.1	-0.5	-3.1	4.6	0.9	3.1	3.1	0.8
Alt 1c	Flow Change	0.8	0.0	0.0	-0.6	-1.1	2.2	-0.5	-3.2	4.5	0.9	4.6	2.9	0.9
Alt 8a	Flow Change	1.0	0.0	0.0	-0.6	-1.2	2.3	-0.5	-3.0	4.8	1.2	2.1	2.4	0.7
Alt 10a	Flow Change	0.8	0.0	0.0	-0.6	-1.2	2.2	-0.5	-3.2	4.5	1.1	1.1	2.5	0.6
Alt 13a	Flow Change	0.6	-0.1	0.0	-0.6	-1.2	2.3	-0.6	-3.6	4.0	0.5	2.0	3.0	0.5
Percent change in flow from Full Use Existing System														
No Act	% Change	1%	0%	1%	1%	-3%	3%	0%	-4%	4%	1%	10%	4%	2%
Alt 1a	% Change	1%	0%	0%	-1%	-1%	2%	0%	-2%	3%	0%	2%	2%	1%
Alt 1c	% Change	1%	0%	0%	-1%	-1%	2%	0%	-2%	3%	0%	2%	2%	1%
Alt 8a	% Change	1%	0%	0%	-1%	-2%	2%	0%	-2%	3%	1%	1%	1%	1%
Alt 10a	% Change	1%	0%	0%	-1%	-2%	2%	0%	-2%	3%	1%	1%	1%	0%
Alt 13a	% Change	1%	0%	0%	-1%	-2%	2%	0%	-2%	2%	0%	1%	2%	0%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Full Use Existing System		111.5	76.2	77.4	77.6	78.3	98.8	220.1	236.9	468.3	458.2	311.5	162.9	198.2
No Act	Flow	113.5	75.6	77.3	77.5	78.2	99.0	220.2	236.3	469.6	457.2	313.4	163.3	198.4
Alt 1a	Flow	111.6	72.7	71.9	77.5	77.4	97.4	218.6	236.5	469.9	458.2	309.7	164.1	197.1
Alt 1c	Flow	111.6	72.7	71.7	77.6	77.4	97.4	218.6	236.9	469.4	458.1	309.8	164.2	197.1
Alt 8a	Flow	112.1	72.8	72.0	77.4	77.6	97.5	218.6	236.5	470.1	458.4	309.9	164.2	197.2
Alt 10a	Flow	111.5	72.8	71.9	77.7	77.3	97.5	218.6	236.4	470.3	458.0	309.6	164.1	197.1
Alt 13a	Flow	111.0	73.0	72.0	78.0	76.6	97.5	218.6	236.3	470.2	458.3	310.0	164.0	197.1
Flow change from Full Use Existing System														
No Act	Flow Change	1.9	-0.6	-0.2	-0.1	-0.1	0.2	0.1	-0.6	1.3	-1.0	1.9	0.4	0.3
Alt 1a	Flow Change	0.1	-3.5	-5.5	-0.1	-0.9	-1.4	-1.5	-0.4	1.7	0.0	-1.8	1.2	-1.0
Alt 1c	Flow Change	0.1	-3.5	-5.7	0.0	-0.9	-1.4	-1.5	0.0	1.1	-0.1	-1.8	1.3	-1.0
Alt 8a	Flow Change	0.6	-3.4	-5.5	-0.2	-0.7	-1.4	-1.5	-0.4	1.8	0.3	-1.6	1.3	-0.9
Alt 10a	Flow Change	0.0	-3.4	-5.5	0.0	-1.0	-1.4	-1.5	-0.5	2.0	-0.2	-1.9	1.2	-1.0
Alt 13a	Flow Change	-0.5	-3.2	-5.5	0.4	-1.7	-1.4	-1.5	-0.6	2.0	0.1	-1.5	1.1	-1.0
Percent change in flow from Full Use Existing System														
No Act	% Change	2%	-1%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%
Alt 1a	% Change	0%	-5%	-7%	0%	-1%	-1%	-1%	0%	0%	0%	-1%	1%	-1%
Alt 1c	% Change	0%	-5%	-7%	0%	-1%	-1%	-1%	0%	0%	0%	-1%	1%	-1%
Alt 8a	% Change	1%	-4%	-7%	0%	-1%	-1%	-1%	0%	0%	0%	-1%	1%	0%
Alt 10a	% Change	0%	-4%	-7%	0%	-1%	-1%	-1%	0%	0%	0%	-1%	1%	-1%
Alt 13a	% Change	0%	-4%	-7%	1%	-2%	-1%	-1%	0%	0%	0%	0%	1%	-1%

Table H-3.44. Cheesman Reservoir Outflow (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		178.9	141.8	119.9	141.2	121.0	128.7	220.5	372.6	502.7	429.9	383.7	248.9	249.1
No Act	Flow	180.6	145.4	122.4	142.5	122.8	128.8	220.1	377.2	499.4	427.3	379.7	249.0	249.6
Alt 1a	Flow	177.9	135.6	114.4	134.0	114.9	121.0	221.5	385.8	509.8	437.2	383.6	253.6	249.1
Alt 1c	Flow	178.0	135.7	114.2	134.1	114.9	121.3	221.7	385.6	509.9	437.3	383.5	253.6	249.1
Alt 8a	Flow	177.9	136.0	114.0	134.1	115.0	120.7	221.1	386.1	510.4	436.8	383.9	253.7	249.1
Alt 10a	Flow	177.8	136.1	113.9	134.2	115.0	120.8	221.0	385.9	510.4	437.0	383.7	253.4	249.1
Alt 13a	Flow	177.9	135.9	114.2	134.1	114.9	120.9	220.8	385.2	510.9	436.1	383.2	253.8	249.0
Flow change from Full Use Existing System														
No Act	Flow Change	1.7	3.6	2.5	1.3	1.8	0.1	-0.4	4.7	-3.3	-2.5	-4.0	0.1	0.5
Alt 1a	Flow Change	-1.0	-6.2	-5.5	-7.2	-6.1	-7.6	1.0	13.3	7.1	7.4	-0.1	4.6	0.0
Alt 1c	Flow Change	-0.9	-6.1	-5.6	-7.2	-6.1	-7.4	1.1	13.0	7.2	7.4	-0.2	4.7	0.0
Alt 8a	Flow Change	-1.1	-5.8	-5.9	-7.1	-6.0	-8.0	0.6	13.5	7.8	7.0	0.2	4.8	0.0
Alt 10a	Flow Change	-1.1	-5.8	-6.0	-7.0	-6.0	-7.8	0.4	13.4	7.8	7.1	0.0	4.5	0.0
Alt 13a	Flow Change	-1.0	-5.9	-5.7	-7.1	-6.1	-7.8	0.3	12.6	8.2	6.2	-0.5	4.9	-0.1
Percent change in flow from Full Use Existing System														
No Act	% Change	1%	3%	2%	1%	1%	0%	0%	1%	-1%	-1%	-1%	0%	0%
Alt 1a	% Change	-1%	-4%	-5%	-5%	-5%	-6%	0%	4%	1%	2%	0%	2%	0%
Alt 1c	% Change	-1%	-4%	-5%	-5%	-5%	-6%	1%	4%	1%	2%	0%	2%	0%
Alt 8a	% Change	-1%	-4%	-5%	-5%	-5%	-6%	0%	4%	2%	2%	0%	2%	0%
Alt 10a	% Change	-1%	-4%	-5%	-5%	-5%	-6%	0%	4%	2%	2%	0%	2%	0%
Alt 13a	% Change	-1%	-4%	-5%	-5%	-5%	-6%	0%	3%	2%	1%	0%	2%	0%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Full Use Existing System		150.8	143.4	120.8	141.8	116.6	131.1	195.5	253.8	270.7	324.9	305.4	287.7	203.5
No Act	Flow	148.8	145.2	122.7	144.2	119.0	132.7	204.3	275.0	294.0	346.8	347.5	328.1	217.4
Alt 1a	Flow	144.7	139.3	115.2	136.3	111.9	128.9	195.4	250.4	276.0	343.9	332.8	309.9	207.0
Alt 1c	Flow	145.1	139.3	115.2	136.3	111.9	128.9	195.6	250.5	277.0	345.1	334.1	309.4	207.4
Alt 8a	Flow	143.9	139.3	115.2	135.9	111.9	129.0	196.5	250.0	276.8	344.4	332.0	310.6	207.1
Alt 10a	Flow	144.8	139.4	115.2	136.2	111.9	129.0	195.7	250.1	276.4	345.2	332.5	310.2	207.2
Alt 13a	Flow	147.7	139.0	115.2	136.3	111.6	128.8	195.4	250.1	276.7	344.1	331.5	308.0	207.0
Flow change from Full Use Existing System														
No Act	Flow Change	-1.9	1.8	1.9	2.4	2.4	1.7	8.9	21.1	23.3	21.9	42.1	40.4	13.8
Alt 1a	Flow Change	-6.1	-4.1	-5.6	-5.5	-4.7	-2.2	0.0	-3.4	5.3	18.9	27.4	22.2	3.5
Alt 1c	Flow Change	-5.6	-4.1	-5.6	-5.5	-4.6	-2.1	0.2	-3.3	6.2	20.2	28.6	21.7	3.8
Alt 8a	Flow Change	-6.9	-4.0	-5.6	-5.9	-4.6	-2.1	1.0	-3.9	6.0	19.5	26.5	22.9	3.6
Alt 10a	Flow Change	-6.0	-4.0	-5.6	-5.6	-4.7	-2.1	0.3	-3.7	5.7	20.3	27.1	22.5	3.7
Alt 13a	Flow Change	-3.1	-4.3	-5.6	-5.5	-4.9	-2.3	0.0	-3.8	5.9	19.2	26.1	20.3	3.5
Percent change in flow from Full Use Existing System														
No Act	% Change	-1%	1%	2%	2%	2%	1%	5%	8%	9%	7%	14%	14%	7%
Alt 1a	% Change	-4%	-3%	-5%	-4%	-4%	-2%	0%	-1%	2%	6%	9%	8%	2%
Alt 1c	% Change	-4%	-3%	-5%	-4%	-4%	-2%	0%	-1%	2%	6%	9%	8%	2%
Alt 8a	% Change	-5%	-3%	-5%	-4%	-4%	-2%	1%	-2%	2%	6%	9%	8%	2%
Alt 10a	% Change	-4%	-3%	-5%	-4%	-4%	-2%	0%	-1%	2%	6%	9%	8%	2%
Alt 13a	% Change	-2%	-3%	-5%	-4%	-4%	-2%	0%	-1%	2%	6%	9%	7%	2%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Full Use Existing System		200.2	145.1	124.6	140.3	121.5	127.9	401.7	811.5	1,188.7	870.9	585.0	290.8	417.4
No Act	Flow	196.4	142.6	120.6	142.2	122.8	130.9	403.3	809.2	1,189.6	870.5	587.3	292.6	417.3
Alt 1a	Flow	194.4	140.4	118.1	140.0	118.3	120.3	405.7	816.4	1,190.7	872.7	582.6	292.9	416.0
Alt 1c	Flow	194.8	140.1	118.0	140.1	118.3	120.4	406.4	816.1	1,189.9	872.8	582.7	293.1	416.0
Alt 8a	Flow	195.0	140.5	118.1	139.9	118.7	120.1	405.9	816.3	1,190.7	873.3	582.4	293.1	416.2
Alt 10a	Flow	194.4	140.5	118.1	140.3	118.2	120.4	405.3	816.6	1,190.9	872.8	582.5	293.0	416.1
Alt 13a	Flow	193.3	140.6	118.2	141.5	117.9	121.1	403.5	816.5	1,191.0	872.5	582.7	293.0	416.0
Flow change from Full Use Existing System														
No Act	Flow Change	-3.8	-2.5	-4.0	1.8	1.3	3.0	1.6	-2.3	1.0	-0.4	2.3	1.8	0.0
Alt 1a	Flow Change	-5.8	-4.7	-6.5	-0.3	-3.2	-7.6	4.0	4.9	2.0	1.8	-2.4	2.2	-1.3
Alt 1c	Flow Change	-5.5	-5.0	-6.6	-0.2	-3.2	-7.6	4.7	4.6	1.2	1.9	-2.3	2.3	-1.3
Alt 8a	Flow Change	-5.2	-4.6	-6.5	-0.4	-2.7	-7.8	4.2	4.8	2.0	2.4	-2.6	2.4	-1.2
Alt 10a	Flow Change	-5.8	-4.6	-6.5	0.0	-3.3	-7.5	3.6	5.1	2.2	1.8	-2.5	2.2	-1.3
Alt 13a	Flow Change	-6.9	-4.5	-6.4	1.2	-3.6	-6.8	1.8	5.0	2.3	1.5	-2.2	2.2	-1.4
Percent change in flow from Full Use Existing System														
No Act	% Change	-2%	-2%	-3%	1%	1%	2%	0%	0%	0%	0%	0%	1%	0%
Alt 1a	% Change	-3%	-3%	-5%	0%	-3%	-6%	1%	1%	0%	0%	0%	1%	0%
Alt 1c	% Change	-3%	-3%	-5%	0%	-3%	-6%	1%	1%	0%	0%	0%	1%	0%
Alt 8a	% Change	-3%	-3%	-5%	0%	-2%	-6%	1%	1%	0%	0%	0%	1%	0%
Alt 10a	% Change	-3%	-3%	-5%	0%	-3%	-6%	1%	1%	0%	0%	0%	1%	0%
Alt 13a	% Change	-3%	-3%	-5%	1%	-3%	-5%	0%	1%	0%	0%	0%	1%	0%

Table H-3.45. South Platte River at Waterton Gage (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		57.1	47.3	31.6	30.9	31.7	31.5	108.2	357.7	477.2	247.5	171.6	71.7	138.7
No Act	Flow	54.9	45.8	31.4	30.9	31.7	31.1	102.4	349.0	456.7	239.1	159.5	68.4	133.4
Alt 1a	Flow	57.0	50.0	32.0	30.9	31.7	31.5	111.3	349.1	455.1	236.7	164.6	69.8	135.0
Alt 1c	Flow	57.1	50.0	32.0	30.9	31.7	31.5	111.0	348.8	454.9	236.4	163.2	69.8	134.8
Alt 8a	Flow	57.4	50.0	32.0	30.9	31.7	31.5	110.9	348.4	454.5	236.4	165.3	70.5	135.0
Alt 10a	Flow	57.1	50.1	32.0	30.9	31.7	31.5	110.8	348.6	454.8	236.7	165.0	70.3	135.0
Alt 13a	Flow	56.7	50.0	32.0	30.9	31.7	31.4	111.0	348.4	455.3	236.8	163.7	70.2	134.8
Flow change from Full Use Existing System														
No Act	Flow Change	-2.2	-1.5	-0.1	0.0	0.0	-0.3	-5.8	-8.8	-20.5	-8.3	-12.1	-3.2	-5.2
Alt 1a	Flow Change	0.0	2.6	0.4	0.0	0.0	0.0	3.1	-8.6	-22.2	-10.8	-7.0	-1.8	-3.7
Alt 1c	Flow Change	0.0	2.7	0.4	0.0	0.0	0.1	2.8	-9.0	-22.3	-11.1	-8.4	-1.9	-3.9
Alt 8a	Flow Change	0.4	2.7	0.4	0.0	0.0	0.1	2.7	-9.4	-22.7	-11.1	-6.4	-1.2	-3.7
Alt 10a	Flow Change	0.1	2.7	0.4	0.0	0.0	0.1	2.7	-9.1	-22.5	-10.8	-6.6	-1.3	-3.7
Alt 13a	Flow Change	-0.4	2.7	0.5	0.0	0.0	-0.1	2.9	-9.3	-22.0	-10.7	-7.9	-1.4	-3.8
Percent change in flow from Full Use Existing System														
No Act	% Change	-4%	-3%	0%	0%	0%	-1%	-5%	-2%	-4%	-3%	-7%	-4%	-4%
Alt 1a	% Change	0%	6%	1%	0%	0%	0%	3%	-2%	-5%	-4%	-4%	-3%	-3%
Alt 1c	% Change	0%	6%	1%	0%	0%	0%	3%	-3%	-5%	-4%	-5%	-3%	-3%
Alt 8a	% Change	1%	6%	1%	0%	0%	0%	3%	-3%	-5%	-4%	-4%	-2%	-3%
Alt 10a	% Change	0%	6%	1%	0%	0%	0%	2%	-3%	-5%	-4%	-4%	-2%	-3%
Alt 13a	% Change	-1%	6%	1%	0%	0%	0%	3%	-3%	-5%	-4%	-5%	-2%	-3%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Full Use Existing System		30.2	34.8	30.0	30.0	30.0	30.4	30.0	49.4	61.2	62.0	60.2	45.2	41.1
No Act	Flow	30.2	31.1	30.0	30.0	30.0	30.4	30.1	48.5	60.5	61.9	60.2	45.2	40.7
Alt 1a	Flow	30.2	34.7	30.0	30.0	30.0	30.4	37.6	53.4	60.5	62.0	60.2	45.2	42.0
Alt 1c	Flow	30.2	34.7	30.0	30.0	30.0	30.4	37.4	53.4	60.5	62.0	60.2	45.2	42.0
Alt 8a	Flow	30.2	34.7	30.0	30.0	30.0	30.4	38.0	53.4	60.6	62.0	60.2	45.2	42.0
Alt 10a	Flow	30.2	34.7	30.0	30.0	30.0	30.4	37.6	53.4	60.5	62.0	60.2	45.2	42.0
Alt 13a	Flow	30.2	35.4	30.0	30.0	30.0	30.4	37.5	53.4	60.6	61.9	60.2	45.2	42.1
Flow change from Full Use Existing System														
No Act	Flow Change	0.0	-3.6	0.0	0.0	0.0	0.0	0.1	-0.9	-0.8	-0.1	0.0	0.0	-0.4
Alt 1a	Flow Change	0.0	-0.1	0.0	0.0	0.0	0.0	7.6	4.0	-0.7	0.0	0.0	0.1	0.9
Alt 1c	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	7.4	4.0	-0.7	0.0	0.0	0.1	0.9
Alt 8a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	7.9	4.0	-0.7	0.0	0.0	0.0	0.9
Alt 10a	Flow Change	0.0	0.0	0.0	0.0	0.0	0.0	7.6	4.0	-0.7	0.0	0.0	0.0	0.9
Alt 13a	Flow Change	0.0	0.6	0.0	0.0	0.0	0.0	7.5	3.9	-0.7	-0.1	0.0	0.0	0.9
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	-10%	0%	0%	0%	0%	0%	-2%	-1%	0%	0%	0%	-1%
Alt 1a	% Change	0%	0%	0%	0%	0%	0%	25%	8%	-1%	0%	0%	0%	2%
Alt 1c	% Change	0%	0%	0%	0%	0%	0%	25%	8%	-1%	0%	0%	0%	2%
Alt 8a	% Change	0%	0%	0%	0%	0%	0%	26%	8%	-1%	0%	0%	0%	2%
Alt 10a	% Change	0%	0%	0%	0%	0%	0%	25%	8%	-1%	0%	0%	0%	2%
Alt 13a	% Change	0%	2%	0%	0%	0%	0%	25%	8%	-1%	0%	0%	0%	2%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Full Use Existing System		101.1	66.8	32.7	32.9	33.1	32.7	404.1	1,281.0	1,563.9	737.6	400.1	120.9	400.6
No Act	Flow	98.4	61.2	32.6	32.9	33.1	32.7	395.8	1,268.5	1,553.9	721.2	373.3	118.9	393.5
Alt 1a	Flow	103.6	72.2	32.9	33.0	33.1	32.7	400.4	1,266.0	1,550.1	713.9	394.3	118.8	395.9
Alt 1c	Flow	103.5	72.2	32.9	33.0	33.1	32.7	400.0	1,265.4	1,549.7	713.6	391.5	118.3	395.5
Alt 8a	Flow	104.8	72.6	33.0	33.0	33.1	32.7	400.1	1,266.2	1,549.4	712.8	395.9	118.9	396.0
Alt 10a	Flow	104.0	72.8	32.9	33.0	33.1	32.7	400.5	1,266.5	1,550.2	714.5	394.1	119.2	396.1
Alt 13a	Flow	103.3	72.1	33.0	32.9	33.1	32.7	400.4	1,266.7	1,549.8	713.2	393.4	120.0	395.9
Flow change from Full Use Existing System														
No Act	Flow Change	-2.7	-5.5	-0.1	0.0	0.0	0.0	-8.3	-12.5	-10.1	-16.4	-26.7	-2.0	-7.0
Alt 1a	Flow Change	2.5	5.4	0.2	0.0	0.0	0.0	-3.7	-14.9	-13.9	-23.7	-5.7	-2.1	-4.7
Alt 1c	Flow Change	2.4	5.4	0.1	0.0	0.0	0.0	-4.1	-15.5	-14.3	-24.0	-8.6	-2.6	-5.1
Alt 8a	Flow Change	3.7	5.8	0.2	0.0	0.0	0.0	-4.0	-14.7	-14.5	-24.8	-4.1	-2.0	-4.5
Alt 10a	Flow Change	2.9	6.0	0.2	0.0	0.0	0.0	-3.6	-14.4	-13.8	-23.1	-5.9	-1.7	-4.5
Alt 13a	Flow Change	2.2	5.3	0.3	0.0	0.0	0.0	-3.7	-14.3	-14.2	-24.4	-6.7	-1.0	-4.7
Percent change in flow from Full Use Existing System														
No Act	% Change	-3%	-8%	0%	0%	0%	0%	-2%	-1%	-1%	-2%	-7%	-2%	-2%
Alt 1a	% Change	2%	8%	1%	0%	0%	0%	-1%	-1%	-1%	-3%	-1%	-2%	-1%
Alt 1c	% Change	2%	8%	0%	0%	0%	0%	-1%	-1%	-1%	-3%	-2%	-2%	-1%
Alt 8a	% Change	4%	9%	1%	0%	0%	0%	-1%	-1%	-1%	-3%	-1%	-2%	-1%
Alt 10a	% Change	3%	9%	0%	0%	0%	0%	-1%	-1%	-1%	-3%	-1%	-1%	-1%
Alt 13a	% Change	2%	8%	1%	0%	0%	0%	-1%	-1%	-1%	-3%	-2%	-1%	-1%

Table H-3.46. South Platte River below Chatfield Reservoir (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		73.3	39.2	17.1	10.6	16.1	34.0	166.0	475.6	518.8	241.0	154.1	57.2	150.3
No Act	Flow	71.2	38.5	15.7	10.3	15.0	32.4	158.5	466.4	503.2	231.9	139.6	51.5	144.5
Alt 1a	Flow	72.3	44.3	20.7	13.4	18.2	35.8	167.3	462.8	504.1	228.0	144.4	53.0	147.0
Alt 1c	Flow	72.3	44.2	20.6	13.3	18.3	36.0	166.9	462.5	504.1	227.5	143.4	52.7	146.8
Alt 8a	Flow	73.0	44.0	20.6	13.1	18.0	35.6	166.9	461.9	504.1	227.9	145.0	53.4	147.0
Alt 10a	Flow	72.5	44.1	20.7	13.2	18.0	35.6	166.9	462.2	504.1	228.0	145.0	53.3	147.0
Alt 13a	Flow	71.8	44.5	20.7	13.5	18.0	35.5	167.4	462.0	505.0	227.7	143.0	53.2	146.8
Flow change from Full Use Existing System														
No Act	Flow Change	-2.1	-0.8	-1.5	-0.3	-1.1	-1.6	-7.5	-9.3	-15.6	-9.1	-14.5	-5.7	-5.7
Alt 1a	Flow Change	-0.9	5.1	3.6	2.8	2.1	1.8	1.3	-12.8	-14.8	-13.1	-9.7	-4.2	-3.2
Alt 1c	Flow Change	-0.9	5.0	3.5	2.7	2.2	2.0	0.9	-13.2	-14.7	-13.5	-10.7	-4.5	-3.4
Alt 8a	Flow Change	-0.3	4.8	3.5	2.5	1.9	1.6	0.9	-13.7	-14.7	-13.1	-9.0	-3.8	-3.3
Alt 10a	Flow Change	-0.8	4.9	3.5	2.6	2.0	1.6	0.9	-13.5	-14.7	-13.1	-9.1	-3.9	-3.3
Alt 13a	Flow Change	-1.5	5.3	3.6	2.9	1.9	1.5	1.4	-13.7	-13.8	-13.4	-11.1	-4.0	-3.4
Percent change in flow from Full Use Existing System														
No Act	% Change	-3%	-2%	-9%	-3%	-7%	-5%	-5%	-2%	-3%	-4%	-9%	-10%	-4%
Alt 1a	% Change	-1%	13%	21%	27%	13%	5%	1%	-3%	-3%	-5%	-6%	-7%	-2%
Alt 1c	% Change	-1%	13%	20%	25%	14%	6%	1%	-3%	-3%	-6%	-7%	-8%	-2%
Alt 8a	% Change	0%	12%	20%	24%	12%	5%	1%	-3%	-3%	-5%	-6%	-7%	-2%
Alt 10a	% Change	-1%	12%	21%	24%	12%	5%	1%	-3%	-3%	-5%	-6%	-7%	-2%
Alt 13a	% Change	-2%	13%	21%	28%	12%	4%	1%	-3%	-3%	-6%	-7%	-7%	-2%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Full Use Existing System		38.6	25.1	19.3	8.3	18.6	33.0	44.7	44.7	35.2	24.5	20.4	20.9	27.8
No Act	Flow	36.2	23.4	16.7	7.7	17.8	32.8	45.1	37.8	27.4	22.7	21.1	21.2	25.8
Alt 1a	Flow	38.3	31.1	19.9	10.8	21.0	33.8	57.2	38.1	31.4	21.9	20.5	21.8	28.8
Alt 1c	Flow	38.4	31.1	19.9	10.8	21.0	33.9	57.2	38.1	31.4	21.9	20.4	21.7	28.8
Alt 8a	Flow	38.5	31.0	19.9	10.7	21.0	34.0	57.4	38.1	31.6	21.8	20.4	20.8	28.8
Alt 10a	Flow	38.4	31.0	19.9	10.8	21.0	33.9	57.1	38.0	31.4	21.8	20.4	20.9	28.7
Alt 13a	Flow	39.9	30.0	20.6	10.8	21.2	33.0	57.5	37.8	32.0	21.6	20.3	20.8	28.8
Flow change from Full Use Existing System														
No Act	Flow Change	-2.4	-1.7	-2.6	-0.5	-0.8	-0.2	0.4	-6.8	-7.8	-1.8	0.7	0.2	-2.0
Alt 1a	Flow Change	-0.3	6.0	0.6	2.5	2.4	0.9	12.5	-6.6	-3.8	-2.6	0.1	0.8	1.0
Alt 1c	Flow Change	-0.3	6.0	0.6	2.5	2.4	0.9	12.5	-6.6	-3.8	-2.6	0.1	0.8	1.0
Alt 8a	Flow Change	-0.2	5.9	0.6	2.4	2.4	1.1	12.7	-6.6	-3.6	-2.7	0.1	-0.1	1.0
Alt 10a	Flow Change	-0.3	5.9	0.6	2.5	2.4	1.0	12.4	-6.6	-3.8	-2.7	0.1	-0.1	1.0
Alt 13a	Flow Change	1.3	4.9	1.3	2.5	2.6	0.0	12.8	-6.8	-3.2	-2.8	0.0	-0.1	1.0
Percent change in flow from Full Use Existing System														
No Act	% Change	-6%	-7%	-13%	-7%	-4%	0%	1%	-15%	-22%	-7%	3%	1%	-7%
Alt 1a	% Change	-1%	24%	3%	30%	13%	3%	28%	-15%	-11%	-10%	1%	4%	4%
Alt 1c	% Change	-1%	24%	3%	30%	13%	3%	28%	-15%	-11%	-11%	0%	4%	4%
Alt 8a	% Change	0%	24%	3%	29%	13%	3%	28%	-15%	-10%	-11%	0%	0%	4%
Alt 10a	% Change	-1%	24%	3%	30%	13%	3%	28%	-15%	-11%	-11%	0%	0%	3%
Alt 13a	% Change	3%	20%	7%	30%	14%	0%	29%	-15%	-9%	-11%	0%	0%	4%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Full Use Existing System		115.0	49.4	33.2	29.8	37.1	76.3	520.1	1,666.6	1,808.5	799.5	440.4	118.5	474.5
No Act	Flow	113.6	49.4	27.7	30.1	37.9	76.7	514.8	1,653.5	1,801.1	784.0	413.9	110.4	467.7
Alt 1a	Flow	109.9	58.5	42.3	31.0	35.3	76.2	515.4	1,653.4	1,796.5	775.8	430.3	110.5	469.6
Alt 1c	Flow	109.9	57.6	42.2	31.0	35.6	76.7	514.5	1,652.2	1,797.1	775.5	427.5	109.5	469.1
Alt 8a	Flow	113.1	57.1	42.5	31.0	35.3	76.3	514.7	1,653.2	1,796.4	776.4	430.2	110.5	469.7
Alt 10a	Flow	110.7	58.9	42.5	31.1	35.3	76.3	515.3	1,652.7	1,797.2	776.2	430.4	110.8	469.8
Alt 13a	Flow	108.1	60.4	42.1	31.0	35.2	75.9	515.5	1,654.1	1,796.1	774.3	428.9	110.9	469.4
Flow change from Full Use Existing System														
No Act	Flow Change	-1.5	-0.1	-5.5	0.3	0.8	0.4	-5.3	-13.1	-7.4	-15.5	-26.5	-8.1	-6.8
Alt 1a	Flow Change	-5.2	9.1	9.1	1.2	-1.8	-0.1	-4.7	-13.2	-12.1	-23.6	-10.0	-8.0	-4.9
Alt 1c	Flow Change	-5.2	8.1	9.0	1.2	-1.5	0.4	-5.5	-14.4	-11.4	-24.0	-12.9	-9.0	-5.4
Alt 8a	Flow Change	-1.9	7.7	9.2	1.1	-1.8	0.0	-5.3	-13.3	-12.1	-23.1	-10.1	-8.0	-4.8
Alt 10a	Flow Change	-4.3	9.5	9.3	1.2	-1.8	0.0	-4.8	-13.8	-11.4	-23.3	-9.9	-7.7	-4.7
Alt 13a	Flow Change	-6.9	11.0	8.9	1.1	-1.9	-0.4	-4.6	-12.5	-12.5	-25.2	-11.5	-7.6	-5.2
Percent change in flow from Full Use Existing System														
No Act	% Change	-1%	0%	-17%	1%	2%	1%	-1%	-1%	0%	-2%	-6%	-7%	-1%
Alt 1a	% Change	-4%	18%	27%	4%	-5%	0%	-1%	-1%	-1%	-3%	-2%	-7%	-1%
Alt 1c	% Change	-4%	16%	27%	4%	-4%	1%	-1%	-1%	-1%	-3%	-3%	-8%	-1%
Alt 8a	% Change	-2%	16%	28%	4%	-5%	0%	-1%	-1%	-1%	-3%	-2%	-7%	-1%
Alt 10a	% Change	-4%	19%	28%	4%	-5%	0%	-1%	-1%	-1%	-3%	-2%	-6%	-1%
Alt 13a	% Change	-6%	22%	27%	4%	-5%	-1%	-1%	-1%	-1%	-3%	-3%	-6%	-1%

Table H-3.47. South Platte River at Denver Gage (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		195.7	152.5	116.5	101.8	116.8	157.1	326.7	846.6	796.3	430.6	341.4	205.8	315.6
No Act	Flow	195.0	151.6	115.3	102.5	118.0	156.7	320.2	836.6	782.5	424.2	329.7	201.8	311.2
Alt 1a	Flow	196.1	159.3	123.0	109.0	121.1	160.8	330.3	834.5	783.1	420.5	333.7	202.7	314.5
Alt 1c	Flow	196.1	159.3	122.8	108.9	121.2	161.0	330.1	834.2	783.3	420.0	332.8	202.3	314.3
Alt 8a	Flow	196.7	159.1	122.8	108.5	121.0	160.6	329.9	833.4	783.3	420.4	334.3	203.1	314.4
Alt 10a	Flow	196.2	159.1	122.9	108.7	121.1	160.6	330.0	833.7	783.3	420.4	334.2	203.0	314.4
Alt 13a	Flow	195.6	159.9	122.9	108.9	120.9	160.4	330.4	833.5	784.2	420.1	332.2	202.8	314.3
Flow change from Full Use Existing System														
No Act	Flow Change	-0.8	-0.9	-1.2	0.7	1.2	-0.3	-6.5	-10.0	-13.9	-6.3	-11.7	-4.0	-4.5
Alt 1a	Flow Change	0.4	6.8	6.5	7.2	4.3	3.7	3.6	-12.1	-13.2	-10.1	-7.7	-3.1	-1.1
Alt 1c	Flow Change	0.3	6.8	6.4	7.1	4.4	4.0	3.4	-12.4	-13.0	-10.6	-8.7	-3.5	-1.3
Alt 8a	Flow Change	1.0	6.6	6.4	6.7	4.2	3.5	3.2	-13.2	-13.0	-10.2	-7.2	-2.7	-1.2
Alt 10a	Flow Change	0.5	6.6	6.4	6.9	4.2	3.6	3.3	-12.9	-13.0	-10.2	-7.3	-2.8	-1.2
Alt 13a	Flow Change	-0.1	7.3	6.5	7.1	4.1	3.3	3.7	-13.1	-12.1	-10.5	-9.2	-3.0	-1.3
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	-1%	-1%	1%	1%	0%	-2%	-1%	-2%	-1%	-3%	-2%	-1%
Alt 1a	% Change	0%	4%	6%	7%	4%	2%	1%	-1%	-2%	-2%	-2%	-1%	0%
Alt 1c	% Change	0%	4%	5%	7%	4%	3%	1%	-1%	-2%	-2%	-3%	-2%	0%
Alt 8a	% Change	1%	4%	5%	7%	4%	2%	1%	-2%	-2%	-2%	-2%	-1%	0%
Alt 10a	% Change	0%	4%	5%	7%	4%	2%	1%	-2%	-2%	-2%	-2%	-1%	0%
Alt 13a	% Change	0%	5%	6%	7%	4%	2%	1%	-2%	-2%	-2%	-3%	-1%	0%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Full Use Existing System		132.9	118.3	102.4	80.5	94.4	120.9	140.4	190.8	197.0	136.3	140.1	132.5	132.2
No Act	Flow	132.2	117.2	101.2	82.5	96.1	122.4	142.7	185.2	191.2	135.3	142.3	132.6	131.7
Alt 1a	Flow	134.2	126.4	106.7	88.5	99.6	122.5	154.0	184.6	195.2	134.9	141.8	132.7	135.1
Alt 1c	Flow	134.2	126.5	106.6	88.5	99.7	122.6	154.1	184.6	195.2	134.8	141.7	132.8	135.1
Alt 8a	Flow	134.4	126.5	106.7	88.0	99.7	122.7	154.3	184.8	195.2	134.8	141.5	131.5	135.0
Alt 10a	Flow	134.3	126.5	106.7	88.5	99.6	122.6	154.0	184.6	195.0	134.8	141.5	131.4	135.0
Alt 13a	Flow	135.9	125.4	107.2	88.5	99.9	121.8	154.4	184.3	196.0	134.4	141.6	131.2	135.1
Flow change from Full Use Existing System														
No Act	Flow Change	-0.7	-1.1	-1.2	2.0	1.7	1.5	2.3	-5.6	-5.8	-1.1	2.2	0.1	-0.5
Alt 1a	Flow Change	1.4	8.2	4.2	7.9	5.1	1.6	13.6	-6.3	-1.8	-1.5	1.7	0.1	2.9
Alt 1c	Flow Change	1.3	8.2	4.2	7.9	5.2	1.7	13.8	-6.2	-1.8	-1.5	1.7	0.2	2.9
Alt 8a	Flow Change	1.5	8.3	4.2	7.4	5.3	1.8	13.9	-6.1	-1.8	-1.5	1.5	-1.1	2.8
Alt 10a	Flow Change	1.4	8.2	4.3	7.9	5.2	1.8	13.7	-6.2	-2.0	-1.5	1.4	-1.1	2.8
Alt 13a	Flow Change	3.0	7.2	4.8	7.9	5.5	1.0	14.1	-6.5	-1.0	-1.9	1.6	-1.3	2.9
Percent change in flow from Full Use Existing System														
No Act	% Change	-1%	-1%	-1%	2%	2%	1%	2%	-3%	-3%	-1%	2%	0%	0%
Alt 1a	% Change	1%	7%	4%	10%	5%	1%	10%	-3%	-1%	-1%	1%	0%	2%
Alt 1c	% Change	1%	7%	4%	10%	6%	1%	10%	-3%	-1%	-1%	1%	0%	2%
Alt 8a	% Change	1%	7%	4%	9%	6%	1%	10%	-3%	-1%	-1%	1%	-1%	2%
Alt 10a	% Change	1%	7%	4%	10%	5%	1%	10%	-3%	-1%	-1%	1%	-1%	2%
Alt 13a	% Change	2%	6%	5%	10%	6%	1%	10%	-3%	0%	-1%	1%	-1%	2%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Full Use Existing System		268.6	200.8	150.1	133.4	161.0	242.8	868.4	2,465.9	2,394.7	1,119.4	690.9	307.4	750.3
No Act	Flow	268.8	201.4	145.3	136.0	164.1	245.7	863.5	2,451.5	2,388.7	1,106.2	672.0	301.7	745.4
Alt 1a	Flow	265.4	211.2	162.7	139.8	160.4	244.4	866.5	2,452.4	2,383.1	1,097.7	686.8	301.9	747.7
Alt 1c	Flow	265.4	210.2	162.5	139.9	160.6	244.9	865.8	2,451.1	2,383.9	1,097.3	684.1	300.9	747.2
Alt 8a	Flow	268.7	209.9	162.8	139.6	160.5	244.3	866.5	2,451.9	2,383.1	1,098.1	686.8	301.9	747.8
Alt 10a	Flow	266.2	211.6	162.9	139.8	160.6	244.4	866.5	2,451.5	2,383.9	1,098.1	686.8	302.2	747.9
Alt 13a	Flow	263.5	213.1	162.5	139.8	160.5	244.0	866.3	2,453.2	2,382.5	1,096.1	685.5	302.5	747.5
Flow change from Full Use Existing System														
No Act	Flow Change	0.2	0.6	-4.8	2.7	3.1	2.8	-4.9	-14.4	-6.0	-13.2	-19.0	-5.6	-4.9
Alt 1a	Flow Change	-3.2	10.4	12.6	6.4	-0.6	1.6	-1.9	-13.5	-11.6	-21.7	-4.1	-5.5	-2.6
Alt 1c	Flow Change	-3.2	9.5	12.4	6.5	-0.5	2.1	-2.6	-14.8	-10.8	-22.1	-6.9	-6.5	-3.1
Alt 8a	Flow Change	0.1	9.2	12.8	6.2	-0.5	1.5	-1.9	-13.9	-11.6	-21.3	-4.2	-5.5	-2.4
Alt 10a	Flow Change	-2.4	10.8	12.8	6.4	-0.5	1.5	-1.9	-14.4	-10.8	-21.3	-4.1	-5.1	-2.4
Alt 13a	Flow Change	-5.1	12.3	12.4	6.4	-0.5	1.2	-2.0	-12.7	-12.2	-23.3	-5.5	-4.9	-2.8
Percent change in flow from Full Use Existing System														
No Act	% Change	0%	0%	-3%	2%	2%	1%	-1%	-1%	0%	-1%	-3%	-2%	-1%
Alt 1a	% Change	-1%	5%	8%	5%	0%	1%	0%	-1%	0%	-2%	-1%	-2%	0%
Alt 1c	% Change	-1%	5%	8%	5%	0%	1%	0%	-1%	0%	-2%	-1%	-2%	0%
Alt 8a	% Change	0%	5%	8%	5%	0%	1%	0%	-1%	0%	-2%	-1%	-2%	0%
Alt 10a	% Change	-1%	5%	9%	5%	0%	1%	0%	-1%	0%	-2%	-1%	-2%	0%
Alt 13a	% Change	-2%	6%	8%	5%	0%	0%	0%	-1%	-1%	-2%	-1%	-2%	0%

Table H-3.48. South Platte River at Henderson Gage (cfs)

Flow Change and % Change are based on comparisons to Full Use Existing System														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Full Use Existing System		152.0	246.9	146.5	242.4	238.6	263.7	242.3	812.7	949.6	658.5	446.7	219.8	385.0
No Act	Flow	155.0	250.5	148.0	249.4	247.2	276.1	248.3	809.3	939.8	660.5	448.0	219.7	387.6
Alt 1a	Flow	160.5	265.6	159.5	262.8	248.8	282.9	246.3	804.0	938.2	655.7	447.2	219.0	390.9
Alt 1c	Flow	160.4	265.5	159.5	262.9	249.0	282.7	246.2	803.4	938.9	655.3	446.4	218.9	390.8
Alt 8a	Flow	158.9	262.4	156.7	257.8	246.8	278.5	242.3	802.7	938.4	654.3	447.2	218.4	388.7
Alt 10a	Flow	159.6	263.6	158.4	260.0	246.8	280.5	243.4	803.3	939.0	654.7	447.0	218.4	389.5
Alt 13a	Flow	162.4	266.1	160.6	263.8	248.3	284.0	247.6	805.1	944.2	659.6	451.6	220.4	392.8
Flow change from Full Use Existing System														
No Act	Flow Change	3.0	3.5	1.5	7.0	8.6	12.4	6.0	-3.4	-9.8	2.0	1.3	-0.1	2.7
Alt 1a	Flow Change	8.5	18.7	13.0	20.4	10.2	19.1	4.1	-8.7	-11.4	-2.8	0.5	-0.8	5.9
Alt 1c	Flow Change	8.4	18.6	13.0	20.6	10.4	19.0	3.9	-9.3	-10.7	-3.2	-0.3	-0.9	5.8
Alt 8a	Flow Change	6.8	15.4	10.2	15.4	8.3	14.7	0.1	-10.0	-11.2	-4.2	0.5	-1.4	3.7
Alt 10a	Flow Change	7.6	16.7	11.9	17.7	8.3	16.8	1.1	-9.4	-10.6	-3.8	0.3	-1.5	4.6
Alt 13a	Flow Change	10.4	19.1	14.1	21.5	9.7	20.3	5.4	-7.6	-5.4	1.1	4.9	0.6	7.8
Percent change in flow from Full Use Existing System														
No Act	% Change	2%	1%	1%	3%	4%	5%	2%	0%	-1%	0%	0%	0%	1%
Alt 1a	% Change	6%	8%	9%	8%	4%	7%	2%	-1%	-1%	0%	0%	0%	2%
Alt 1c	% Change	6%	8%	9%	8%	4%	7%	2%	-1%	-1%	0%	0%	0%	2%
Alt 8a	% Change	5%	6%	7%	6%	3%	6%	0%	-1%	-1%	-1%	0%	-1%	1%
Alt 10a	% Change	5%	7%	8%	7%	3%	6%	0%	-1%	-1%	-1%	0%	-1%	1%
Alt 13a	% Change	7%	8%	10%	9%	4%	8%	2%	-1%	-1%	0%	1%	0%	2%
Dry Year Average (1950, 1954, 1963, 1977, 1981)														
Full Use Existing System		67.6	180.6	61.3	188.7	203.4	161.3	104.7	239.8	328.4	284.3	224.4	157.4	183.5
No Act	Flow	71.9	182.5	65.3	199.1	216.2	161.3	106.7	242.2	329.8	287.0	231.8	159.4	187.8
Alt 1a	Flow	75.5	195.6	71.7	206.9	203.0	167.4	106.7	238.4	324.9	284.2	227.3	161.3	188.6
Alt 1c	Flow	74.8	195.8	72.5	206.9	203.6	167.6	106.7	238.5	324.9	284.2	227.3	161.2	188.7
Alt 8a	Flow	73.7	192.1	64.0	201.1	203.1	166.9	106.2	238.2	323.8	279.7	224.9	158.4	186.0
Alt 10a	Flow	76.2	195.0	68.2	205.2	200.4	167.0	106.7	238.5	324.3	280.5	225.1	158.7	187.1
Alt 13a	Flow	79.7	195.5	72.0	206.7	204.0	168.4	106.8	239.7	330.0	286.8	229.4	160.3	189.9
Flow change from Full Use Existing System														
No Act	Flow Change	4.3	1.9	4.0	10.4	12.8	0.0	2.0	2.5	1.4	2.7	7.4	2.0	4.3
Alt 1a	Flow Change	7.8	15.0	10.4	18.2	-0.4	6.1	2.0	-1.3	-3.5	0.0	2.9	3.9	5.1
Alt 1c	Flow Change	7.2	15.2	11.1	18.2	0.2	6.3	2.0	-1.2	-3.5	-0.1	2.9	3.8	5.2
Alt 8a	Flow Change	6.0	11.5	2.7	12.4	-0.3	5.6	1.5	-1.6	-4.6	-4.6	0.5	1.0	2.5
Alt 10a	Flow Change	8.5	14.4	6.8	16.5	-3.0	5.7	2.1	-1.3	-4.1	-3.8	0.7	1.3	3.6
Alt 13a	Flow Change	12.1	14.9	10.7	18.0	0.5	7.1	2.1	0.0	1.6	2.6	5.0	2.9	6.5
Percent change in flow from Full Use Existing System														
No Act	% Change	6%	1%	6%	6%	6%	0%	2%	1%	0%	1%	3%	1%	2%
Alt 1a	% Change	12%	8%	17%	10%	0%	4%	2%	-1%	-1%	0%	1%	2%	3%
Alt 1c	% Change	11%	8%	18%	10%	0%	4%	2%	-1%	-1%	0%	1%	2%	3%
Alt 8a	% Change	9%	6%	4%	7%	0%	3%	1%	-1%	-1%	-2%	0%	1%	1%
Alt 10a	% Change	13%	8%	11%	9%	-1%	4%	2%	-1%	-1%	-1%	0%	1%	2%
Alt 13a	% Change	18%	8%	17%	10%	0%	4%	2%	0%	0%	1%	2%	2%	4%
Wet Year Average (1949, 1970, 1973, 1983, 1984)														
Full Use Existing System		173.3	331.2	261.7	326.5	273.9	381.9	721.8	2,479.4	2,902.2	1,459.0	860.8	385.8	879.8
No Act	Flow	178.7	334.8	263.5	329.7	282.9	411.5	757.1	2,469.6	2,899.2	1,459.5	866.6	384.3	886.4
Alt 1a	Flow	187.4	352.6	277.7	351.5	285.5	395.3	748.0	2,469.9	2,894.5	1,457.6	864.9	382.6	889.0
Alt 1c	Flow	187.1	352.6	277.9	351.7	286.0	395.4	748.8	2,468.3	2,896.0	1,457.5	863.3	382.9	889.0
Alt 8a	Flow	184.0	349.1	272.9	349.2	278.8	391.2	738.7	2,472.3	2,895.8	1,457.2	865.1	382.1	886.4
Alt 10a	Flow	186.2	351.0	274.4	350.8	279.1	393.0	742.6	2,473.2	2,894.7	1,457.0	864.9	381.8	887.4
Alt 13a	Flow	192.0	350.7	277.0	351.8	287.7	394.6	755.1	2,471.7	2,901.4	1,470.7	873.7	385.1	892.6
Flow change from Full Use Existing System														
No Act	Flow Change	5.4	3.6	1.8	3.2	9.0	29.6	35.3	-9.8	-3.0	0.5	5.8	-1.5	6.7
Alt 1a	Flow Change	14.1	21.4	16.0	25.0	11.6	13.5	26.2	-9.4	-7.7	-1.4	4.1	-3.3	9.2
Alt 1c	Flow Change	13.9	21.3	16.2	25.2	12.1	13.6	27.0	-11.0	-6.2	-1.5	2.6	-2.9	9.2
Alt 8a	Flow Change	10.7	17.9	11.2	22.7	4.9	9.3	16.9	-7.0	-6.4	-1.8	4.3	-3.7	6.6
Alt 10a	Flow Change	12.9	19.8	12.7	24.3	5.2	11.2	20.8	-6.2	-7.5	-2.0	4.1	-4.0	7.6
Alt 13a	Flow Change	18.8	19.4	15.4	25.2	13.8	12.7	33.4	-7.7	-0.8	11.7	12.9	-0.7	12.8
Percent change in flow from Full Use Existing System														
No Act	% Change	3%	1%	1%	1%	3%	8%	5%	0%	0%	0%	1%	0%	1%
Alt 1a	% Change	8%	6%	6%	8%	4%	4%	4%	0%	0%	0%	0%	-1%	1%
Alt 1c	% Change	8%	6%	6%	8%	4%	4%	4%	0%	0%	0%	0%	-1%	1%
Alt 8a	% Change	6%	5%	4%	7%	2%	2%	2%	0%	0%	0%	0%	-1%	1%
Alt 10a	% Change	7%	6%	5%	7%	2%	3%	3%	0%	0%	0%	0%	-1%	1%
Alt 13a	% Change	11%	6%	6%	8%	5%	3%	5%	0%	0%	1%	1%	0%	1%

Appendix H-4
PACSM Output – Average Daily Hydrographs

- Figure H-4.1 Moffat Tunnel – Average Daily Diversions (cfs)
- Figure H-4.2 Moffat Tunnel – Wet Year Average Daily Diversions (cfs)
- Figure H-4.3 Moffat Tunnel – Dry Year Average Daily Diversions (cfs)
- Figure H-4.4 Below Denver Water's Diversion from Fraser River – Average Daily Flow (cfs)
- Figure H-4.5 Below Denver Water's Diversion from Fraser River – Wet Year Average Daily Flow (cfs)
- Figure H-4.6 Below Denver Water's Diversion from Fraser River – Dry Year Average Daily Flow (cfs)
- Figure H-4.7 Below Denver Water's Diversion from Jim Creek – Average Daily Flow (cfs)
- Figure H-4.8 Below Denver Water's Diversion from Jim Creek – Wet Year Average Daily Flow (cfs)
- Figure H-4.9 Below Denver Water's Diversion from Jim Creek – Dry Year Average Daily Flow (cfs)
- Figure H-4.10 Below Denver Water's Diversions from Cub and Buck Creeks – Average Daily Flow (cfs)
- Figure H-4.11 Below Denver Water's Diversions from Cub and Buck Creeks – Wet Year Average Daily Flow (cfs)
- Figure H-4.12 Below Denver Water's Diversions from Cub and Buck Creeks – Dry Year Average Daily Flow (cfs)
- Figure H-4.13 Below Denver Water's Diversion from Cooper Creek– Average Daily Flow (cfs)
- Figure H-4.14 Below Denver Water's Diversion from Cooper Creek – Wet Year Average Daily Flow (cfs)
- Figure H-4.15 Below Denver Water's Diversion from Cooper Creek – Dry Year Average Daily Flow (cfs)
- Figure H-4.16 Fraser River near Winter Park Gage – Average Daily Flow (cfs)
- Figure H-4.17 Fraser River near Winter Park Gage – Wet Year Average Daily Flow (cfs)
- Figure H-4.18 Fraser River near Winter Park Gage – Dry Year Average Daily Flow (cfs)
- Figure H-4.19 Vasquez Creek below the Gumlick Tunnel – Average Daily Flow (cfs)

- Figure H-4.20 Vasquez Creek below the Gumlick Tunnel – Wet Year Average Daily Flow (cfs)
- Figure H-4.21 Vasquez Creek below the Gumlick Tunnel – Dry Year Average Daily Flow (cfs)
- Figure H-4.22 Below Denver Water's Diversion from Vasquez Creek– Average Daily Flow (cfs)
- Figure H-4.23 Below Denver Water's Diversion from Vasquez Creek – Wet Year Average Daily Flow (cfs)
- Figure H-4.24 Below Denver Water's Diversion from Vasquez Creek – Dry Year Average Daily Flow (cfs)
- Figure H-4.25 Below Denver Water's Diversion from Little Vasquez Creek – Average Daily Flow (cfs)
- Figure H-4.26 Below Denver Water's Diversion from Little Vasquez Creek – Wet Year Average Daily Flow (cfs)
- Figure H-4.27 Below Denver Water's Diversion from Little Vasquez Creek – Dry Year Average Daily Flow (cfs)
- Figure H-4.28 Vasquez Creek Gage – Average Daily Flow (cfs)
- Figure H-4.29 Vasquez Creek Gage – Wet Year Average Daily Flow (cfs)
- Figure H-4.30 Vasquez Creek Gage – Dry Year Average Daily Flow (cfs)
- Figure H-4.31 Fraser River below Vasquez Creek – Average Daily Flow (cfs)
- Figure H-4.32 Fraser River below Vasquez Creek – Wet Year Average Daily Flow (cfs)
- Figure H-4.33 Fraser River below Vasquez Creek – Dry Year Average Daily Flow (cfs)
- Figure H-4.34 Below Denver Water's Diversions from Elk Creek and Tributaries – Average Daily Flow (cfs)
- Figure H-4.35 Below Denver Water's Diversions from Elk Creek and Tributaries – Wet Year Average Daily Flow (cfs)
- Figure H-4.36 Below Denver Water's Diversions from Elk Creek and Tributaries – Dry Year Average Daily Flow (cfs)
- Figure H-4.37 Below Denver Water's Diversion from St. Louis Creek – Average Daily Flow (cfs)
- Figure H-4.38 Below Denver Water's Diversion from St. Louis Creek – Wet Year Average Daily Flow (cfs)

- Figure H-4.39 Below Denver Water's Diversion from St. Louis Creek – Dry Year Average Daily Flow (cfs)
- Figure H-4.40 Below Denver Water's Diversions from St. Louis Creek Tributaries – Average Daily Flow (cfs)
- Figure H-4.41 Below Denver Water's Diversions from St. Louis Creek Tributaries – Wet Year Average Daily Flow (cfs)
- Figure H-4.42 Below Denver Water's Diversions from St. Louis Creek Tributaries – Dry Year Average Daily Flow (cfs)
- Figure H-4.43 St. Louis Creek near Fraser Gage – Average Daily Flow (cfs)
- Figure H-4.44 St. Louis Creek near Fraser Gage – Wet Year Average Daily Flow (cfs)
- Figure H-4.45 St. Louis Creek near Fraser Gage – Dry Year Average Daily Flow (cfs)
- Figure H-4.46 Below Denver Water's Diversion from King Creek – Average Daily Flow (cfs)
- Figure H-4.47 Below Denver Water's Diversion from King Creek – Wet Year Average Daily Flow (cfs)
- Figure H-4.48 Below Denver Water's Diversion from King Creek – Dry Year Average Daily Flow (cfs)
- Figure H-4.49 Fraser River below St. Louis Creek – Average Daily Flow (cfs)
- Figure H-4.50 Fraser River below St. Louis Creek – Wet Year Average Daily Flow (cfs)
- Figure H-4.51 Fraser River below St. Louis Creek – Dry Year Average Daily Flow (cfs)
- Figure H-4.52 Below Denver Water's Englewood Ranch Gravity System Diversions – Average Daily Flow (cfs)
- Figure H-4.53 Below Denver Water's Englewood Ranch Gravity System Diversions – Wet Year Average Daily Flow (cfs)
- Figure H-4.54 Below Denver Water's Englewood Ranch Gravity System Diversions – Dry Year Average Daily Flow (cfs)
- Figure H-4.55 Below Denver Water's Diversions from North Fork Ranch Creek and Dribble Creek – Average Daily Flow (cfs)
- Figure H-4.56 Below Denver Water's Diversions from North Fork Ranch Creek and Dribble Creek – Wet Year Average Daily Flow (cfs)
- Figure H-4.57 Below Denver Water's Diversions from North Fork Ranch Creek and Dribble Creek – Dry Year Average Daily Flow (cfs)

- Figure H-4.58 Below Denver Water's Diversions from Main Ranch Creek – Average Daily Flow (cfs)
- Figure H-4.59 Below Denver Water's Diversion from Main Ranch Creek – Wet Year Average Daily Flow (cfs)
- Figure H-4.60 Below Denver Water's Diversion from Main Ranch Creek – Dry Year Average Daily Flow (cfs)
- Figure H-4.61 Below Denver Water's Diversion from Middle and South Fork of Ranch Creek – Average Daily Flow (cfs)
- Figure H-4.62 Below Denver Water's Diversion from Middle and South Fork of Ranch Creek – Wet Year Average Daily Flow (cfs)
- Figure H-4.63 Below Denver Water's Diversion from Middle and South Fork of Ranch Creek – Dry Year Average Daily Flow (cfs)
- Figure H-4.64 Fraser River below Crooked Creek – Average Daily Flow (cfs)
- Figure H-4.65 Fraser River below Crooked Creek – Wet Year Average Daily Flow (cfs)
- Figure H-4.66 Fraser River below Crooked Creek – Dry Year Average Daily Flow (cfs)
- Figure H-4.67 Fraser River at Granby Gage – Average Daily Flow (cfs)
- Figure H-4.68 Fraser River at Granby Gage – Wet Year Average Daily Flow (cfs)
- Figure H-4.69 Fraser River at Granby Gage – Dry Year Average Daily Flow (cfs)
- Figure H-4.70 Gumlick Tunnel – Average Daily Diversion (cfs)
- Figure H-4.71 Gumlick Tunnel – Wet Year Average Daily Diversion (cfs)
- Figure H-4.72 Gumlick Tunnel – Dry Year Average Daily Diversion (cfs)
- Figure H-4.73 Below Denver Water's Diversion from Steelman Creek – Average Daily Flow (cfs)
- Figure H-4.74 Below Denver Water's Diversion from Steelman Creek – Wet Year Average Daily Flow (cfs)
- Figure H-4.75 Below Denver Water's Diversion from Steelman Creek – Dry Year Average Daily Flow (cfs)
- Figure H-4.76 Below Denver Water's Diversion from Bobtail Creek – Average Daily Flow (cfs)
- Figure H-4.77 Below Denver Water's Diversion from Bobtail Creek – Wet Year Average Daily Flow (cfs)

- Figure H-4.78 Below Denver Water's Diversion from Bobtail Creek – Dry Year Average Daily Flow (cfs)
- Figure H-4.79 Below Denver Water's Diversion from Jones Creek – Average Daily Flow (cfs)
- Figure H-4.80 Below Denver Water's Diversion from Jones Creek – Wet Year Average Daily Flow (cfs)
- Figure H-4.81 Below Denver Water's Diversion from Jones Creek – Dry Year Average Daily Flow (cfs)
- Figure H-4.82 Below Denver Water's Diversion from McQueary Creek – Average Daily Flow (cfs)
- Figure H-4.83 Below Denver Water's Diversion from McQueary Creek – Wet Year Average Daily Flow (cfs)
- Figure H-4.84 Below Denver Water's Diversion from McQueary Creek – Dry Year Average Daily Flow (cfs)
- Figure H-4.85 Williams Fork River below Steelman Creek Gage – Average Daily Flow (cfs)
- Figure H-4.86 Williams Fork River below Steelman Creek Gage – Wet Year Average Daily Flow (cfs)
- Figure H-4.87 Williams Fork River below Steelman Creek Gage – Dry Year Average Daily Flow (cfs)
- Figure H-4.88 Williams Fork Reservoir – Average Daily Outflow (cfs)
- Figure H-4.89 Williams Fork Reservoir – Wet Year Average Daily Outflow (cfs)
- Figure H-4.90 Williams Fork Reservoir – Dry Year Average Daily Outflow (cfs)
- Figure H-4.91 Colorado River below Windy Gap Diversion – Average Daily Flow (cfs)
- Figure H-4.92 Colorado River below Windy Gap Diversion – Wet Year Average Daily Flow (cfs)
- Figure H-4.93 Colorado River below Windy Gap Diversion – Dry Year Average Daily Flow (cfs)
- Figure H-4.94 Colorado River below Confluence with Williams Fork River – Average Daily Flow (cfs)
- Figure H-4.95 Colorado River below Confluence with Williams Fork River – Wet Year Average Daily Flow (cfs)

- Figure H-4.96 Colorado River below Confluence with Williams Fork River – Dry Year Average Daily Flow (cfs)
- Figure H-4.97 Colorado River near Kremmling Gage – Average Daily Flow (cfs)
- Figure H-4.98 Colorado River near Kremmling Gage – Wet Year Average Daily Flow (cfs)
- Figure H-4.99 Colorado River near Kremmling Gage – Dry Year Average Daily Flow (cfs)
- Figure H-4.100 Wolford Mountain Reservoir – Average Daily Flow (cfs)
- Figure H-4.101 Wolford Mountain Reservoir – Wet Year Average Daily Flow (cfs)
- Figure H-4.102 Wolford Mountain Reservoir – Dry Year Average Daily Flow (cfs)
- Figure H-4.103 Roberts Tunnel – Average Daily Diversion (cfs)
- Figure H-4.104 Roberts Tunnel – Wet Year Average Daily Diversion (cfs)
- Figure H-4.105 Roberts Tunnel – Dry Year Average Daily Diversion (cfs)
- Figure H-4.106 Dillon Reservoir – Average Daily Outflow (cfs)
- Figure H-4.107 Dillon Reservoir – Wet Year Average Daily Outflow (cfs)
- Figure H-4.108 Dillon Reservoir – Dry Year Average Daily Outflow (cfs)
- Figure H-4.109 Green Mountain Reservoir – Average Daily Outflow (cfs)
- Figure H-4.110 Green Mountain Reservoir – Wet Year Average Daily Outflow (cfs)
- Figure H-4.111 Green Mountain Reservoir – Dry Year Average Daily Outflow (cfs)
- Figure H-4.112 South Boulder Creek at Pinecliffe Gage – Average Daily Flow (cfs)
- Figure H-4.113 South Boulder Creek at Pinecliffe Gage – Wet Year Average Daily Flow (cfs)
- Figure H-4.114 South Boulder Creek at Pinecliffe Gage – Dry Year Average Daily Flow (cfs)
- Figure H-4.115 Gross Reservoir – Average Daily Outflow (cfs)
- Figure H-4.116 Gross Reservoir – Wet Year Average Daily Outflow (cfs)
- Figure H-4.117 Gross Reservoir – Dry Year Average Daily Outflow (cfs)

- Figure H-4.118 South Boulder Creek near Eldorado Springs Gage – Average Daily Flow (cfs)
- Figure H-4.119 South Boulder Creek near Eldorado Springs Gage – Wet Year Average Daily Flow (cfs)
- Figure H-4.120 South Boulder Creek near Eldorado Springs Gage – Dry Year Average Daily Flow (cfs)
- Figure H-4.121 North Fork South Platte River below Geneva Creek Gage – Average Daily Flow (cfs)
- Figure H-4.122 North Fork South Platte River below Geneva Creek Gage – Wet Year Average Daily Flow (cfs)
- Figure H-4.123 North Fork South Platte River below Geneva Creek Gage – Dry Year Average Daily Flow (cfs)
- Figure H-4.124 Cheesman Reservoir – Average Daily Outflow (cfs)
- Figure H-4.125 Cheesman Reservoir – Wet Year Average Daily Outflow (cfs)
- Figure H-4.126 Cheesman Reservoir – Dry Year Average Daily Outflow (cfs)
- Figure H-4.127 South Platte River at Waterton Gage – Average Daily Flow (cfs)
- Figure H-4.128 South Platte River at Waterton Gage – Wet Year Average Daily Flow (cfs)
- Figure H-4.129 South Platte River at Waterton Gage – Dry Year Average Daily Flow (cfs)
- Figure H-4.130 South Platte River at Denver Gage – Average Daily Flow (cfs)
- Figure H-4.131 South Platte River at Denver Gage – Wet Year Average Daily Flow (cfs)
- Figure H-4.132 South Platte River at Denver Gage – Dry Year Average Daily Flow (cfs)
- Figure H-4.133 South Platte River at Henderson Gage – Average Daily Flow (cfs)
- Figure H-4.134 South Platte River at Henderson Gage – Wet Year Average Daily Flow (cfs)
- Figure H-4.135 South Platte River at Henderson Gage – Dry Year Average Daily Flow (cfs)

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Figure H-4.1. Moffat Tunnel – Average Daily Diversions (cfs)

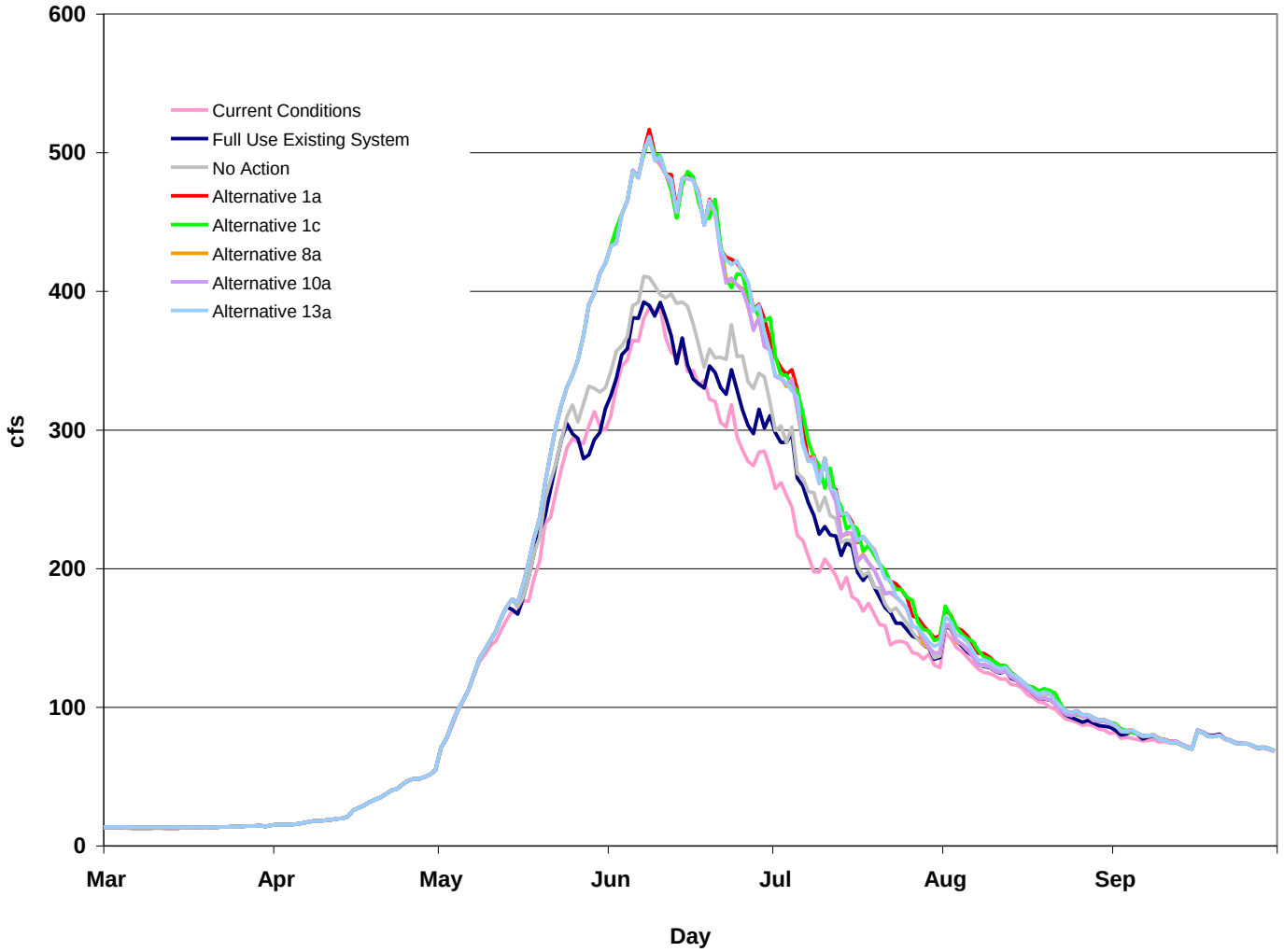


Figure H-4.2. Moffat Tunnel – Wet Year Average Daily Diversions (cfs)

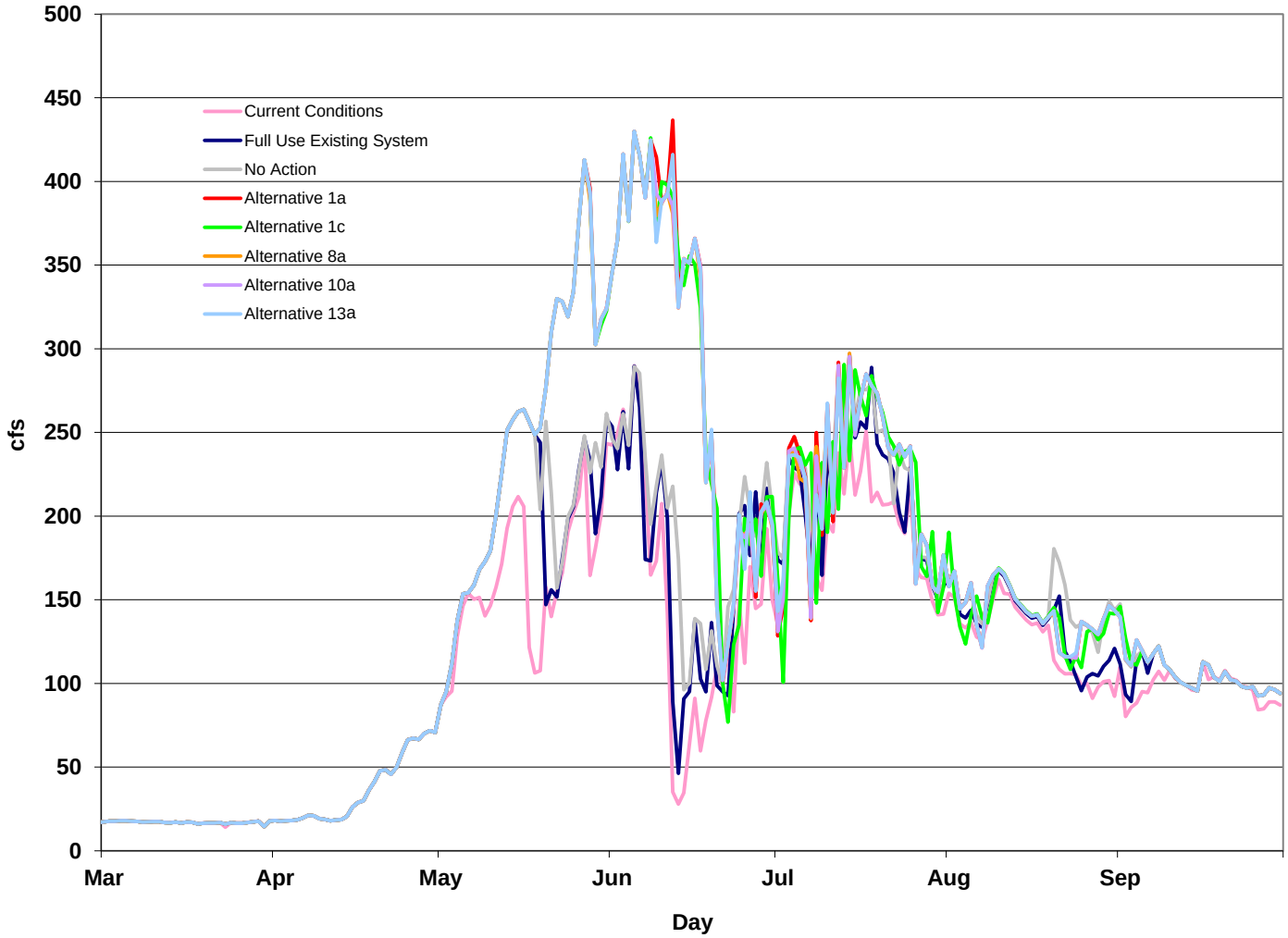


Figure H-4.3. Moffat Tunnel – Dry Year Average Daily Diversions (cfs)

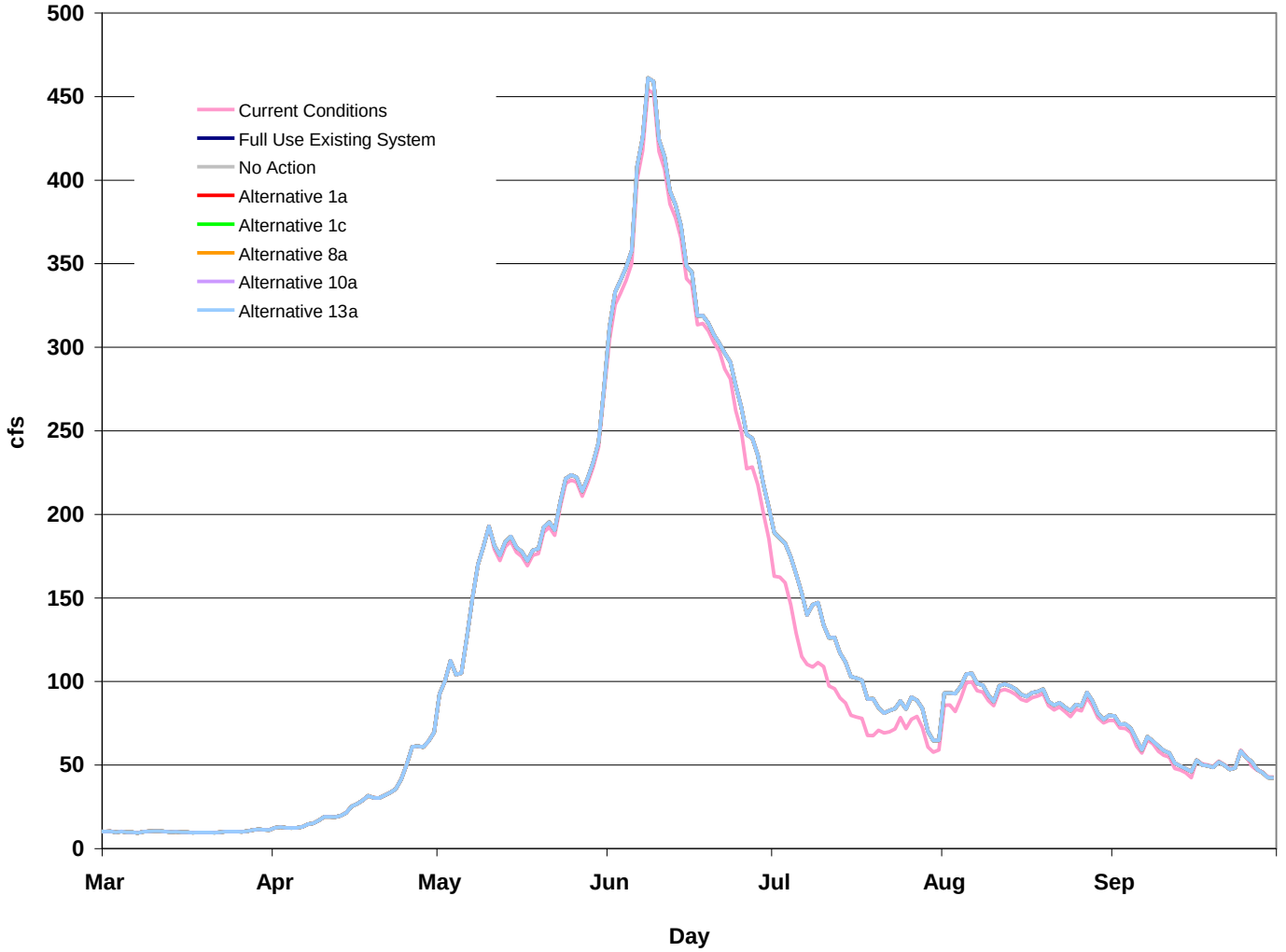


Figure H-4.4. Below Denver Water's Diversion from Fraser River – Average Daily Flow (cfs)

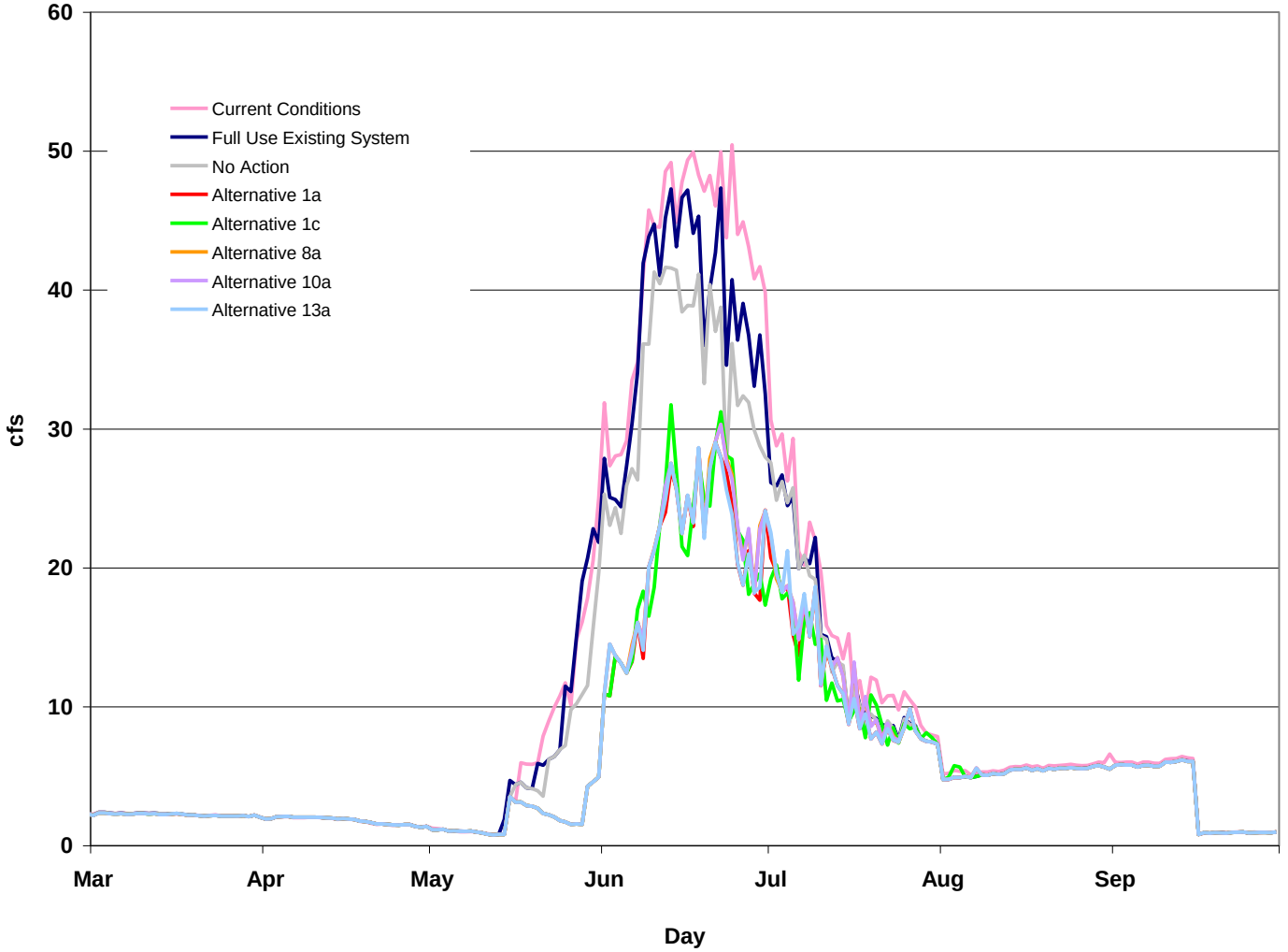


Figure H-4.5. Below Denver Water's Diversion from Fraser River – Wet Year Average Daily Flow (cfs)

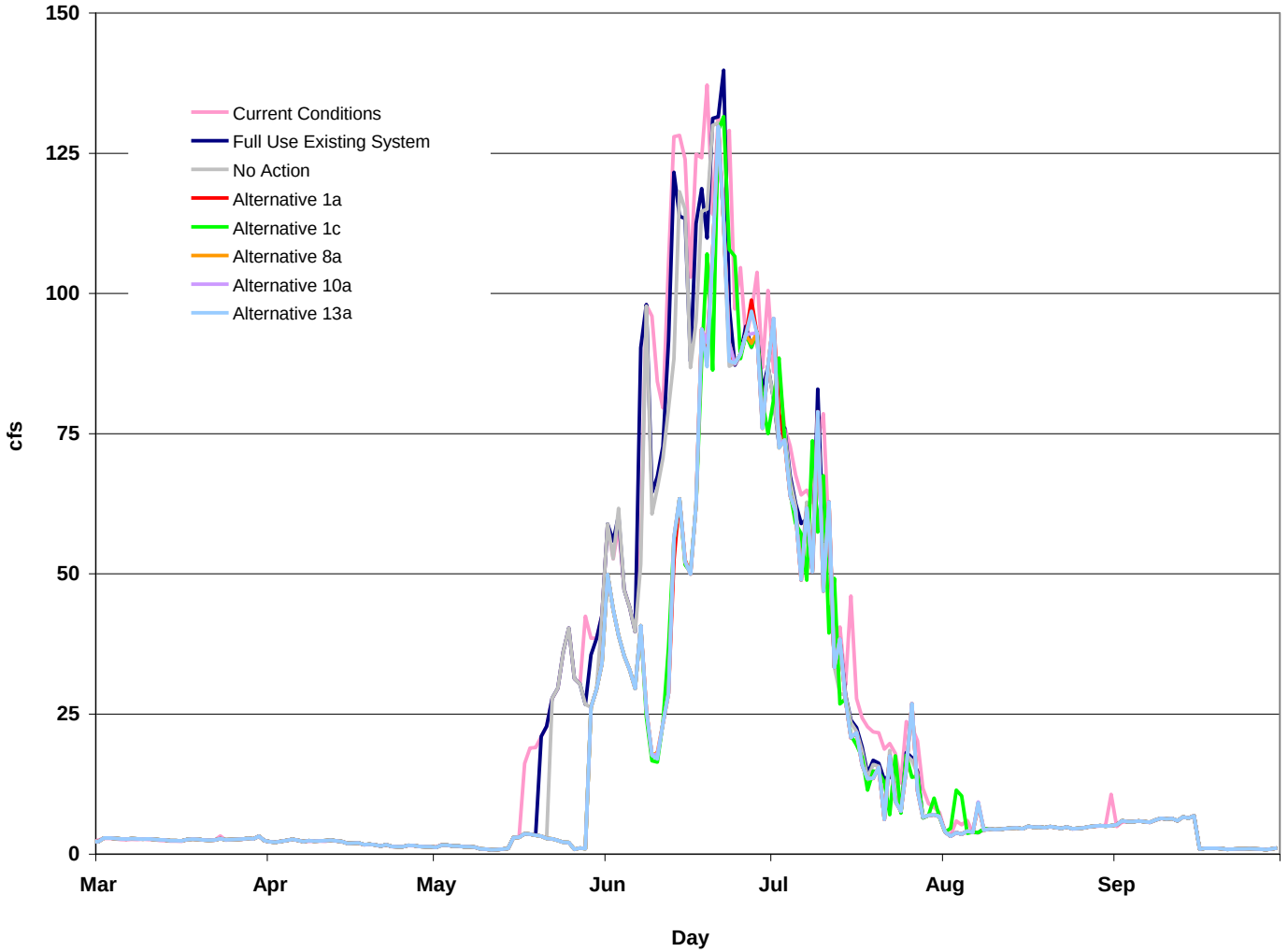


Figure H-4.6. Below Denver Water's Diversion from Fraser River – Dry Year Average Daily Flow (cfs)

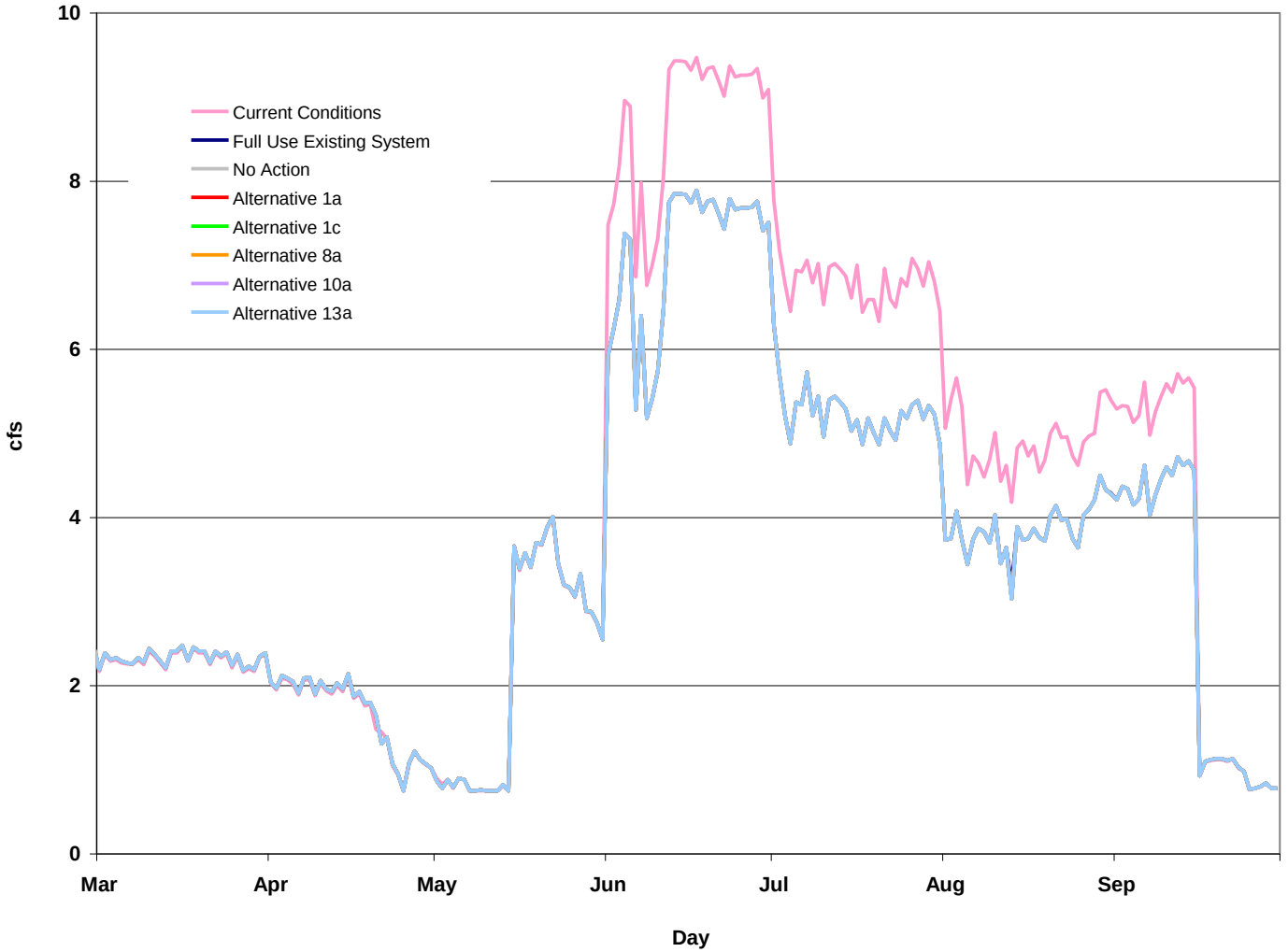


Figure H-4.7. Below Denver Water's Diversion from Jim Creek – Average Daily Flow (cfs)

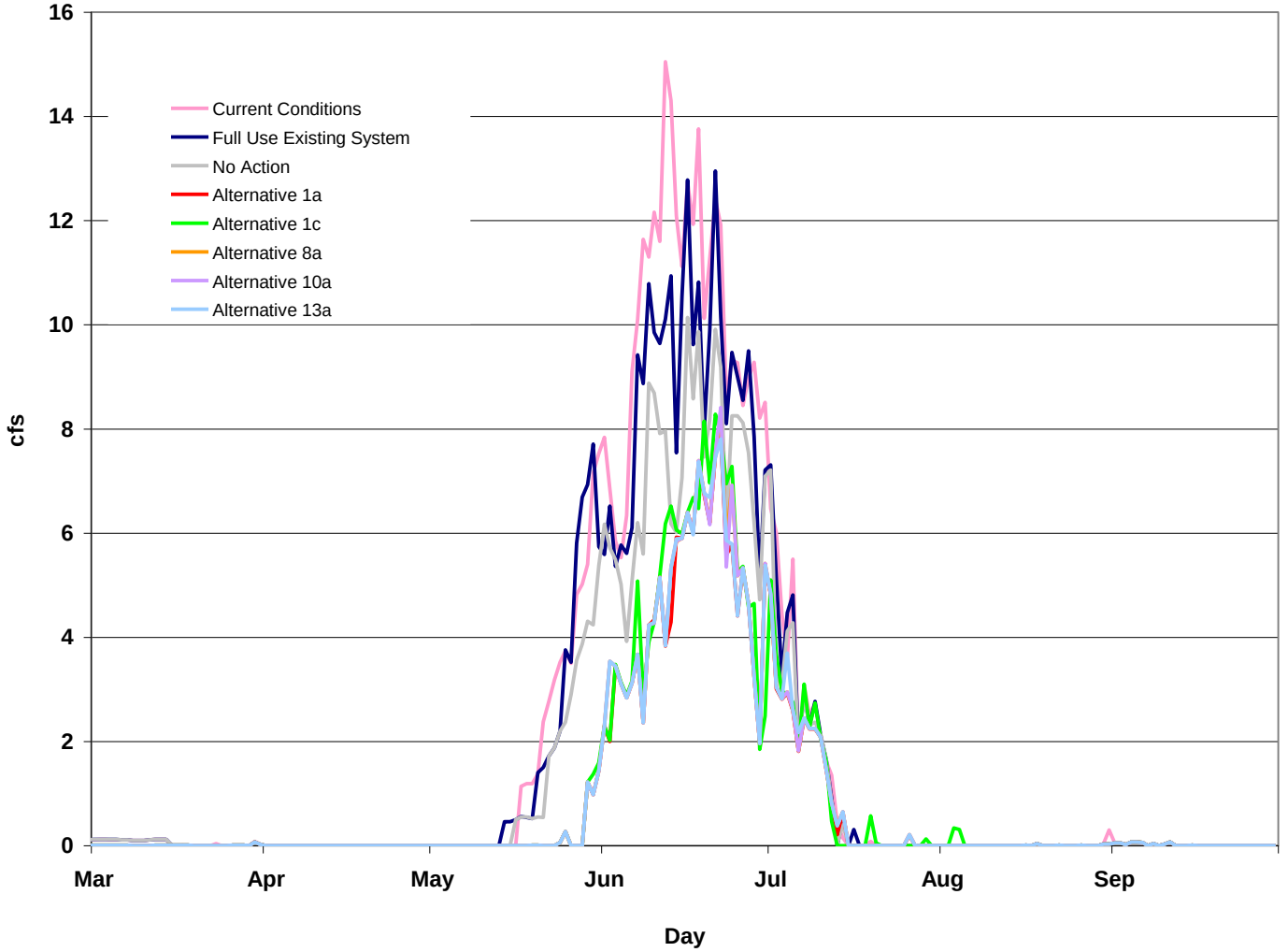


Figure H-4.8. Below Denver Water's Diversion from Jim Creek – Wet Year Average Daily Flow (cfs)

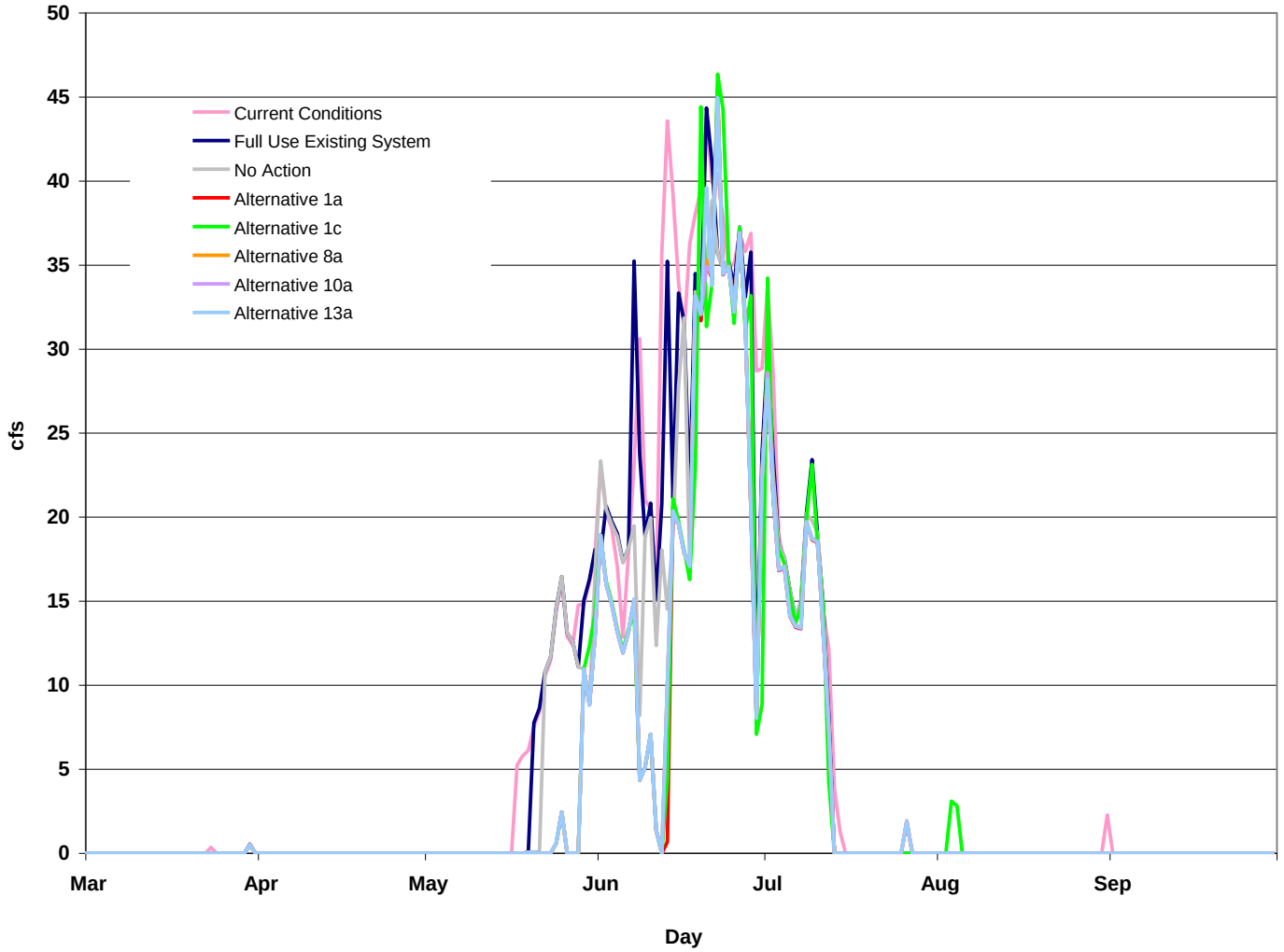


Figure H-4.9. Below Denver Water's Diversion from Jim Creek – Dry Year Average Daily Flow (cfs)

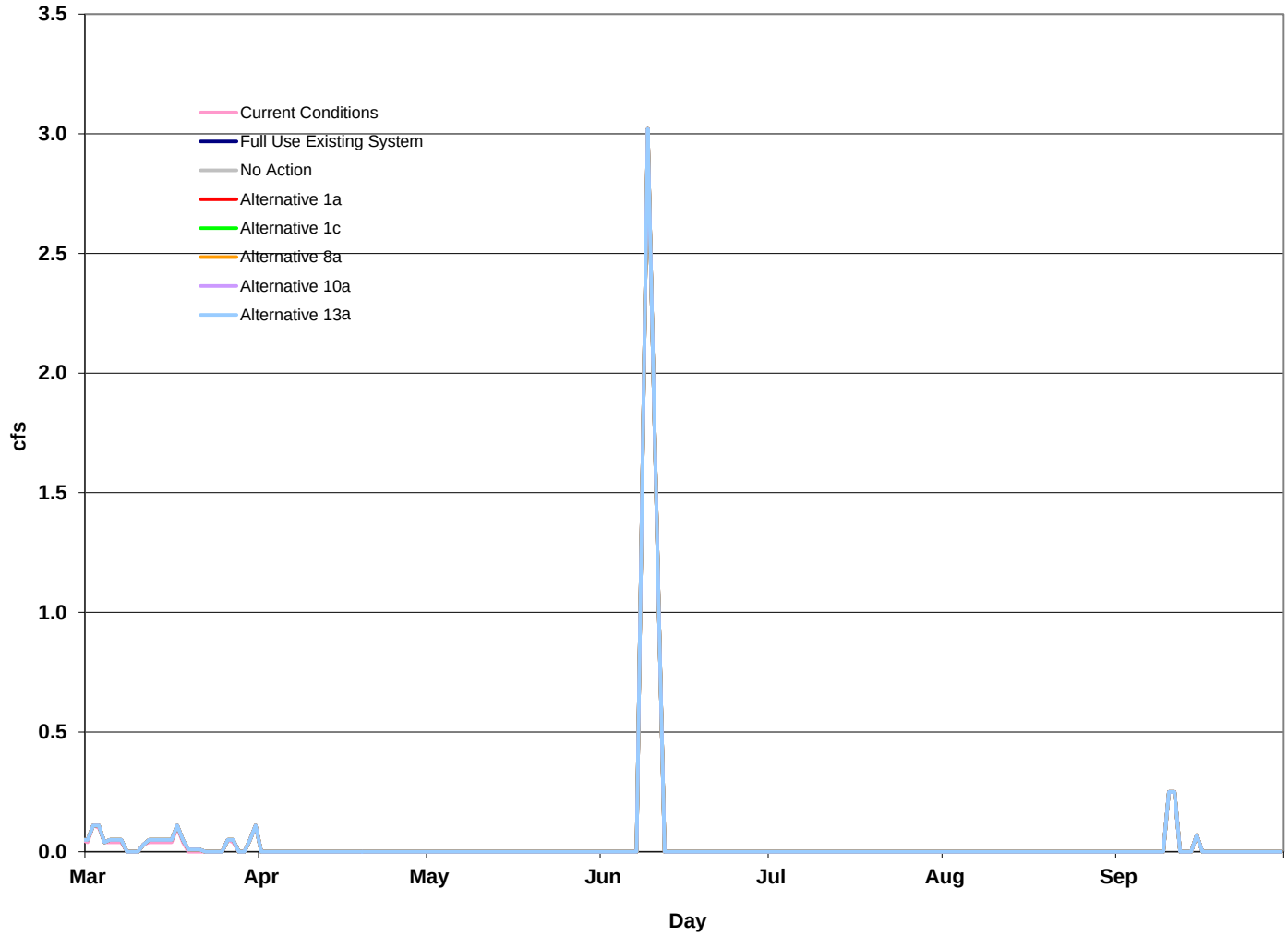


Figure H-4.10. Below Denver Water's Diversions from Cub and Buck Creeks – Average Daily Flow (cfs)

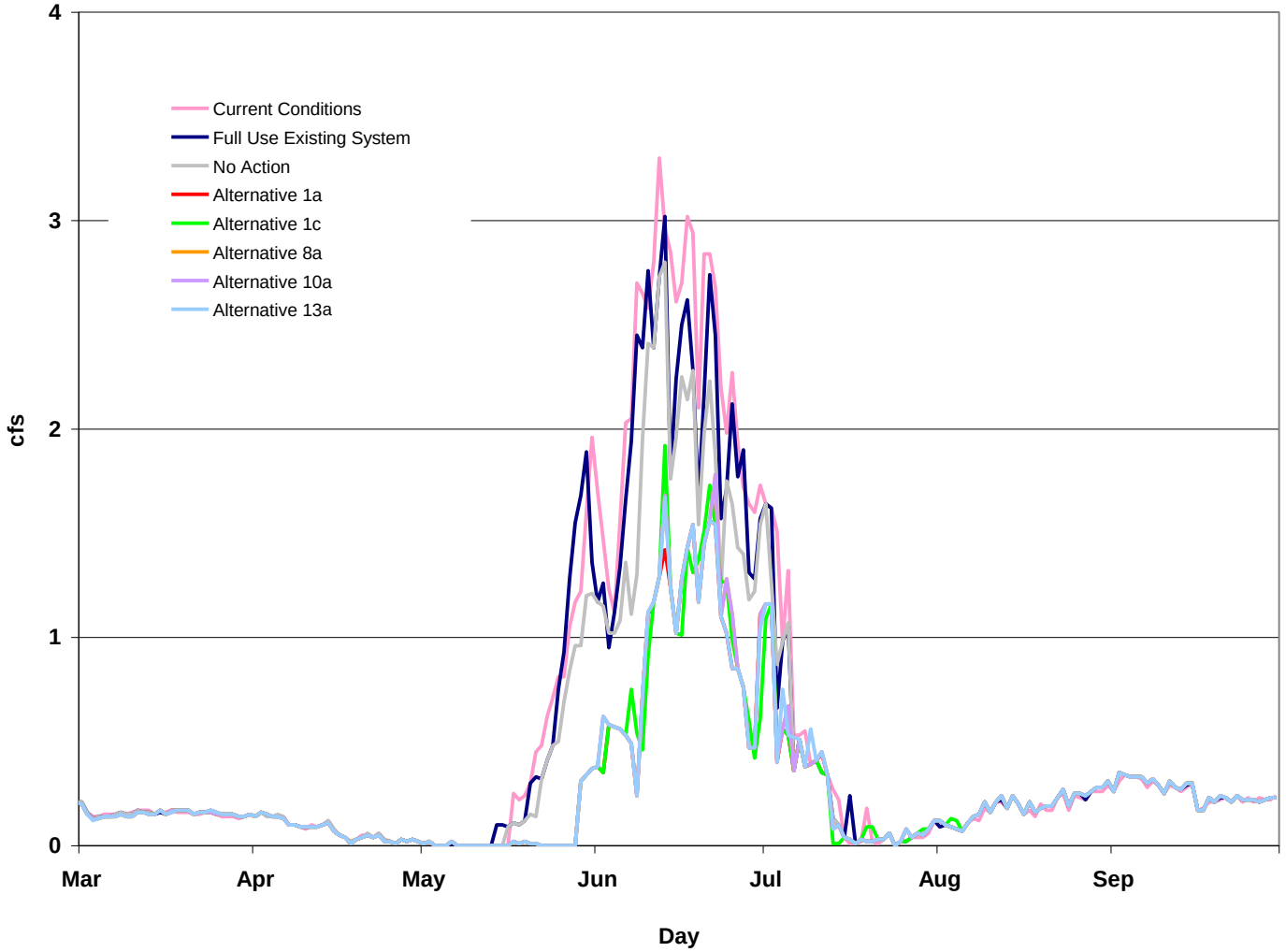


Figure H-4.11. Below Denver Water's Diversions from Cub and Buck Creeks – Wet Year Average Daily Flow (cfs)

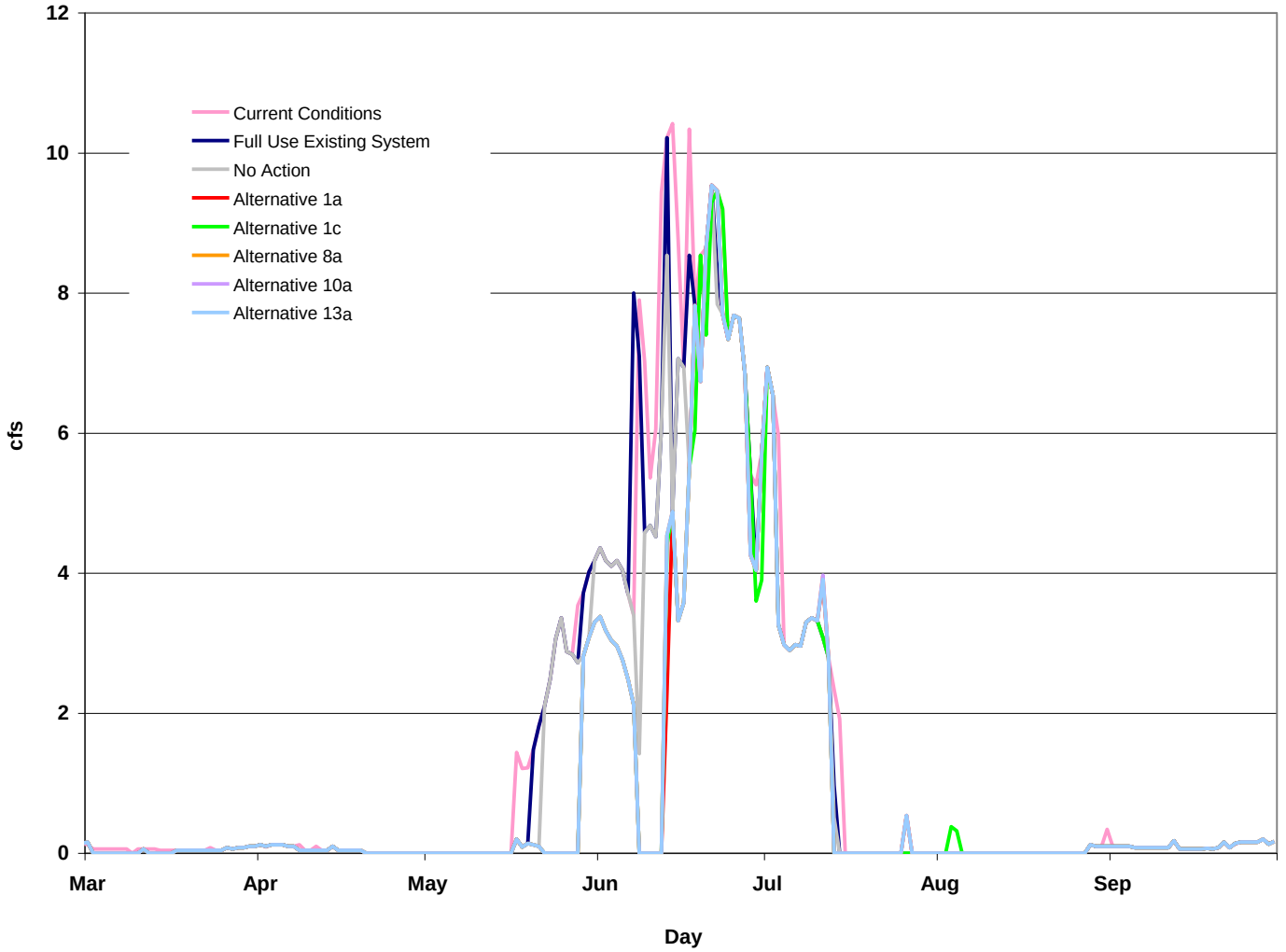


Figure H-4.12. Below Denver Water's Diversions from Cub and Buck Creeks – Dry Year Average Daily Flow (cfs)

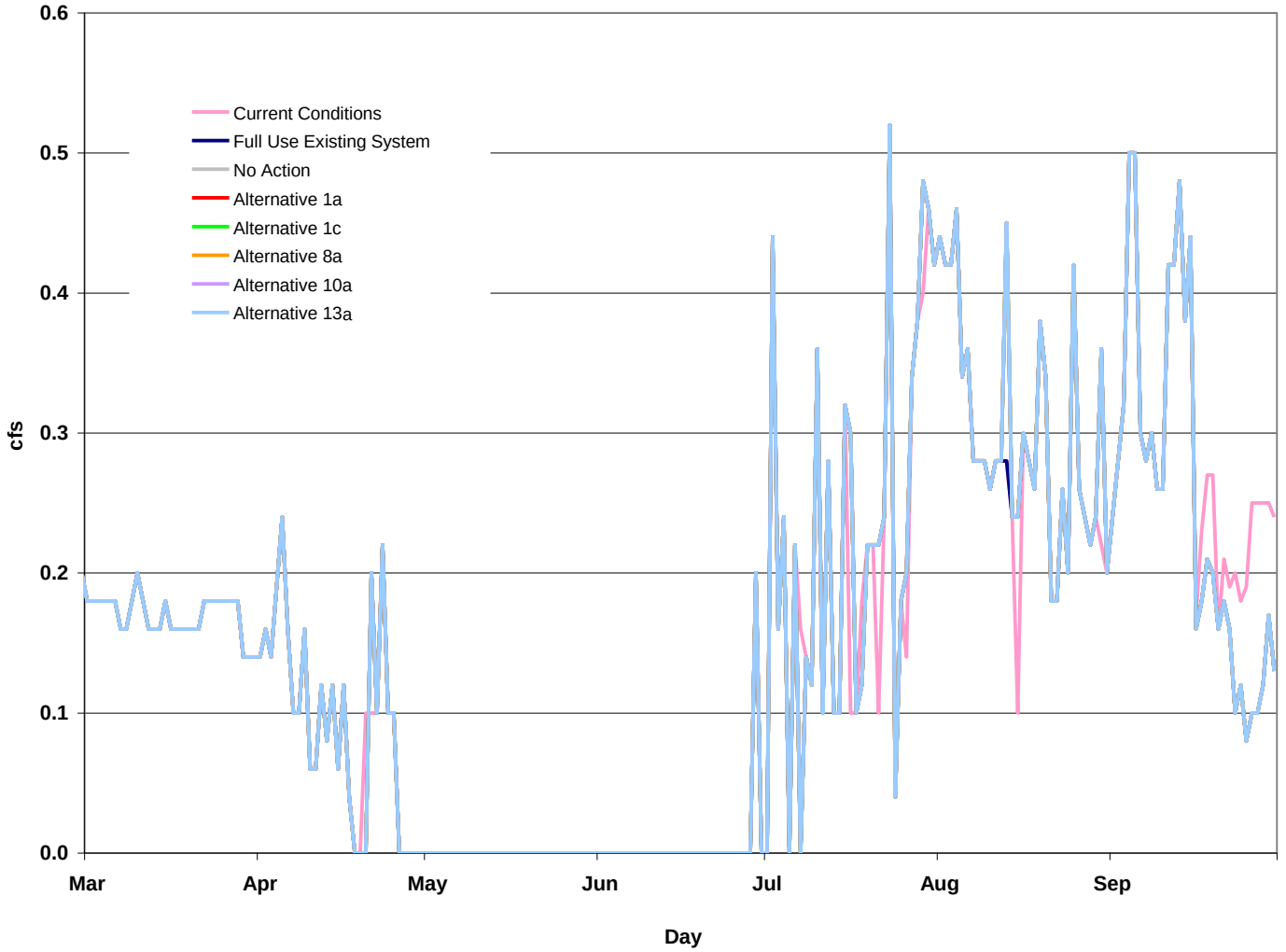


Figure H-4.13. Below Denver Water's Diversion from Cooper Creek – Average Daily Flow (cfs)

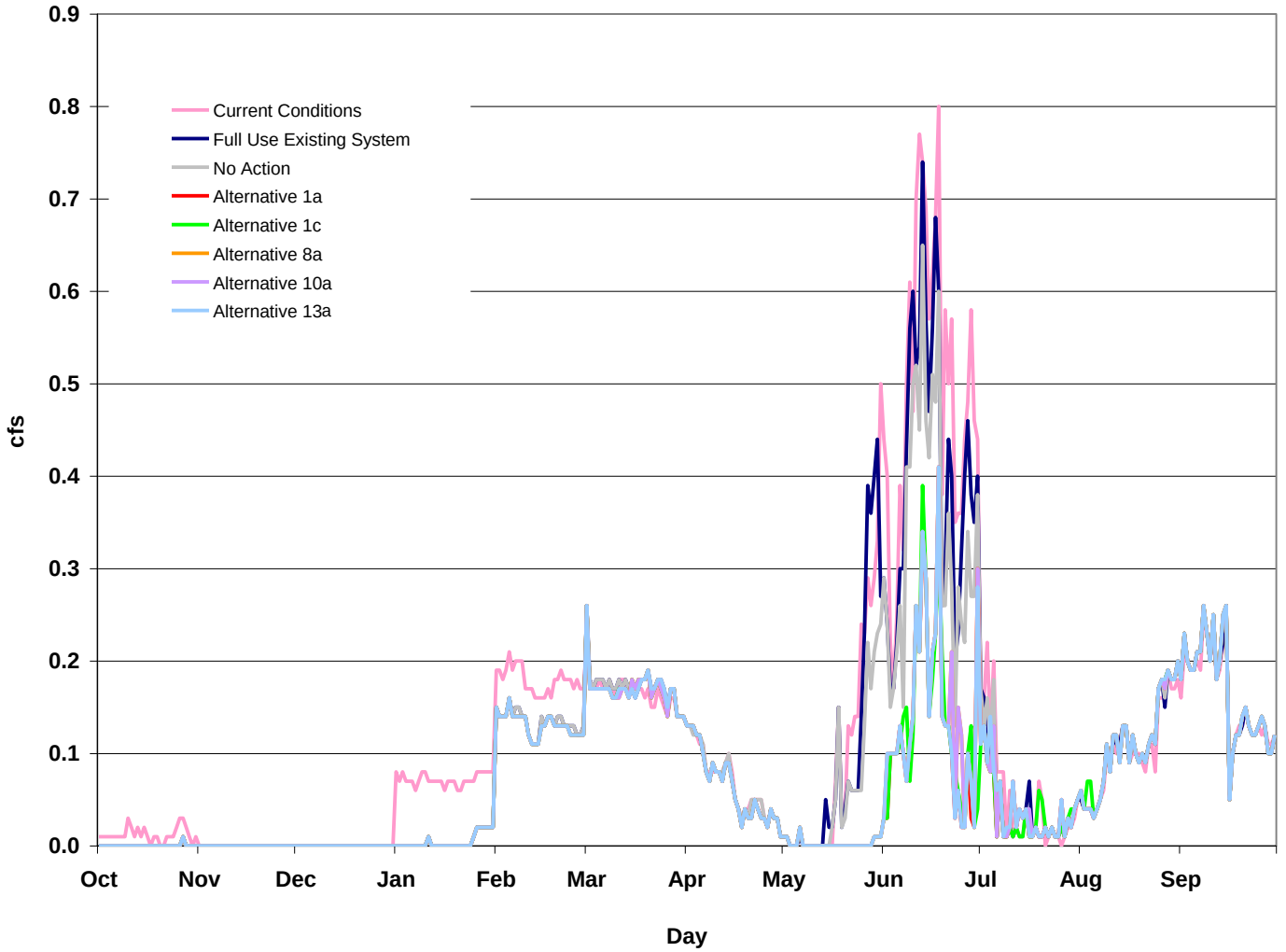


Figure H-4.14. Below Denver Water's Diversion from Cooper Creek – Wet Year Average Daily Flow (cfs)

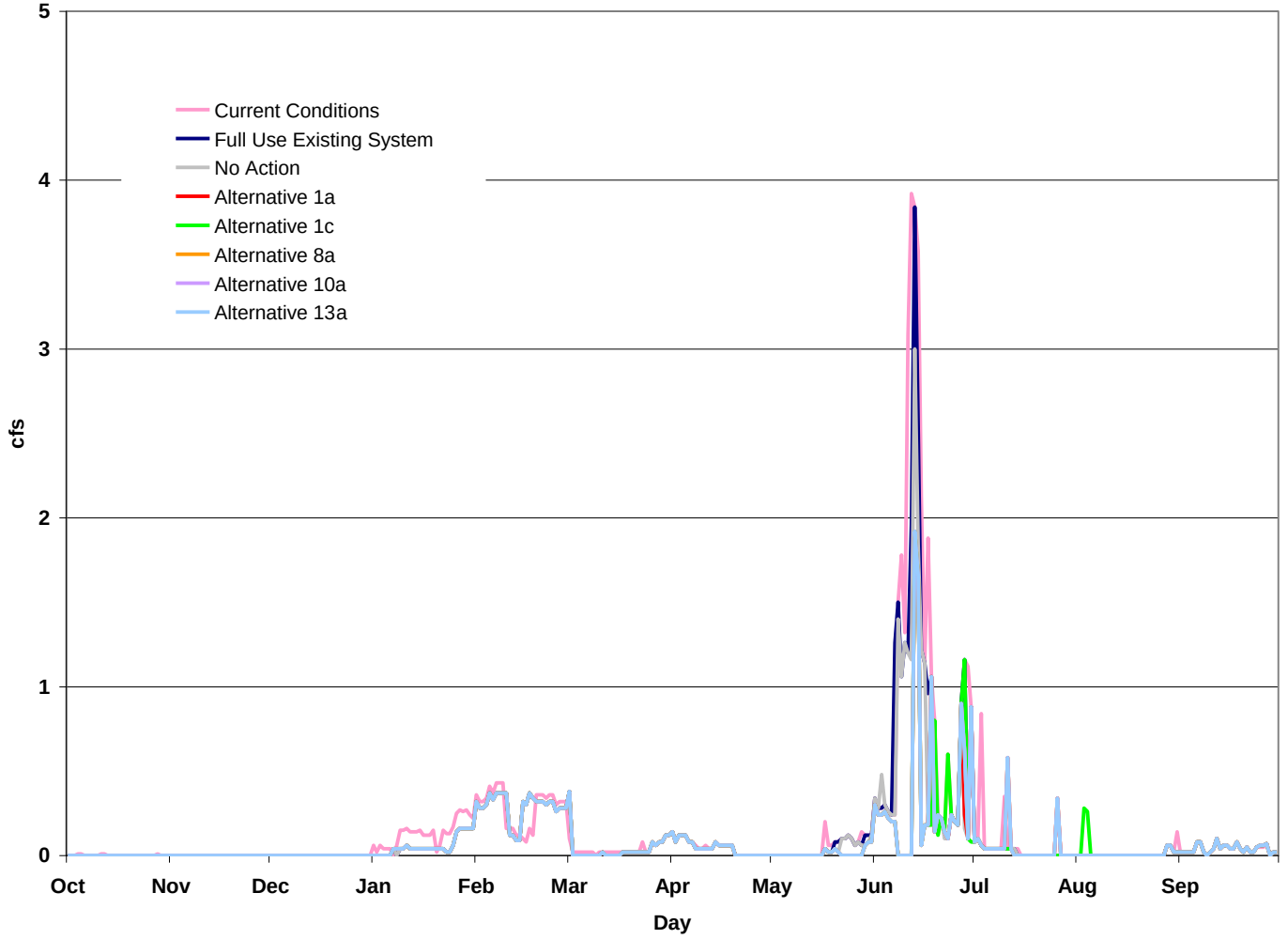


Figure H-4.15. Below Denver Water's Diversion from Cooper Creek – Dry Year Average Daily Flow (cfs)

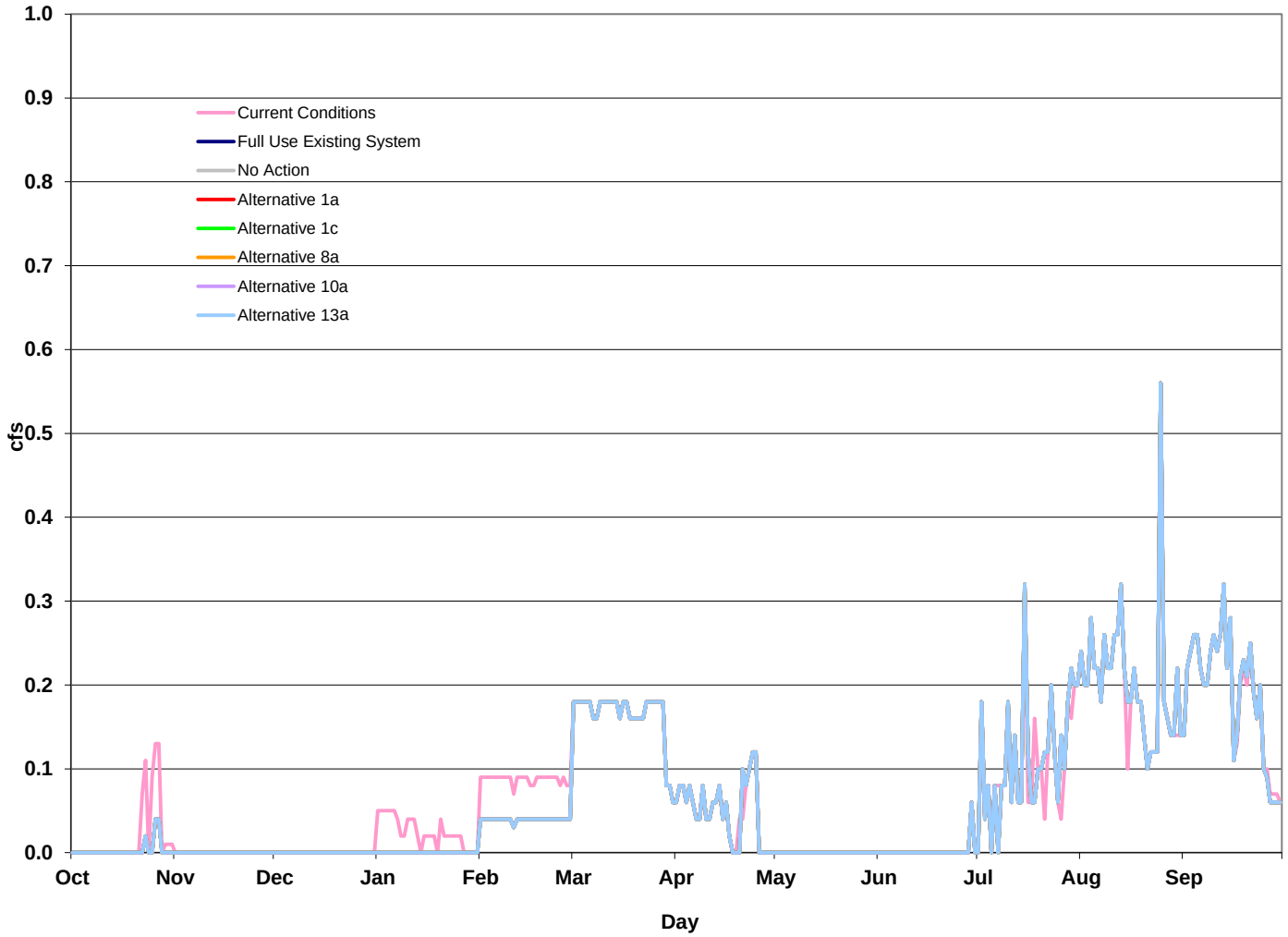


Figure H-4.16. Fraser River near Winter Park Gage – Average Daily Flow (cfs)

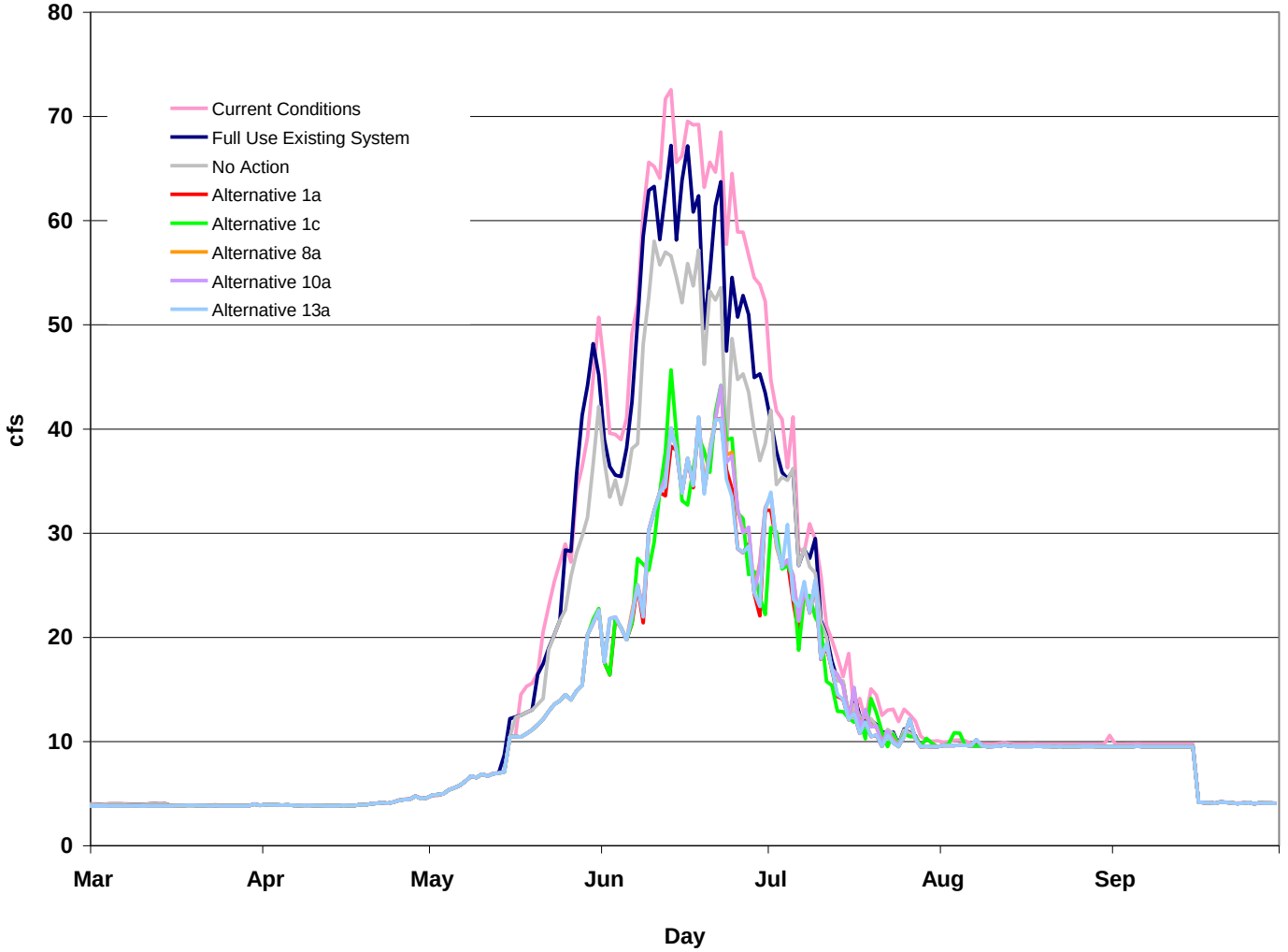


Figure H-4.17. Fraser River near Winter Park Gage – Wet Year Average Daily Flow (cfs)

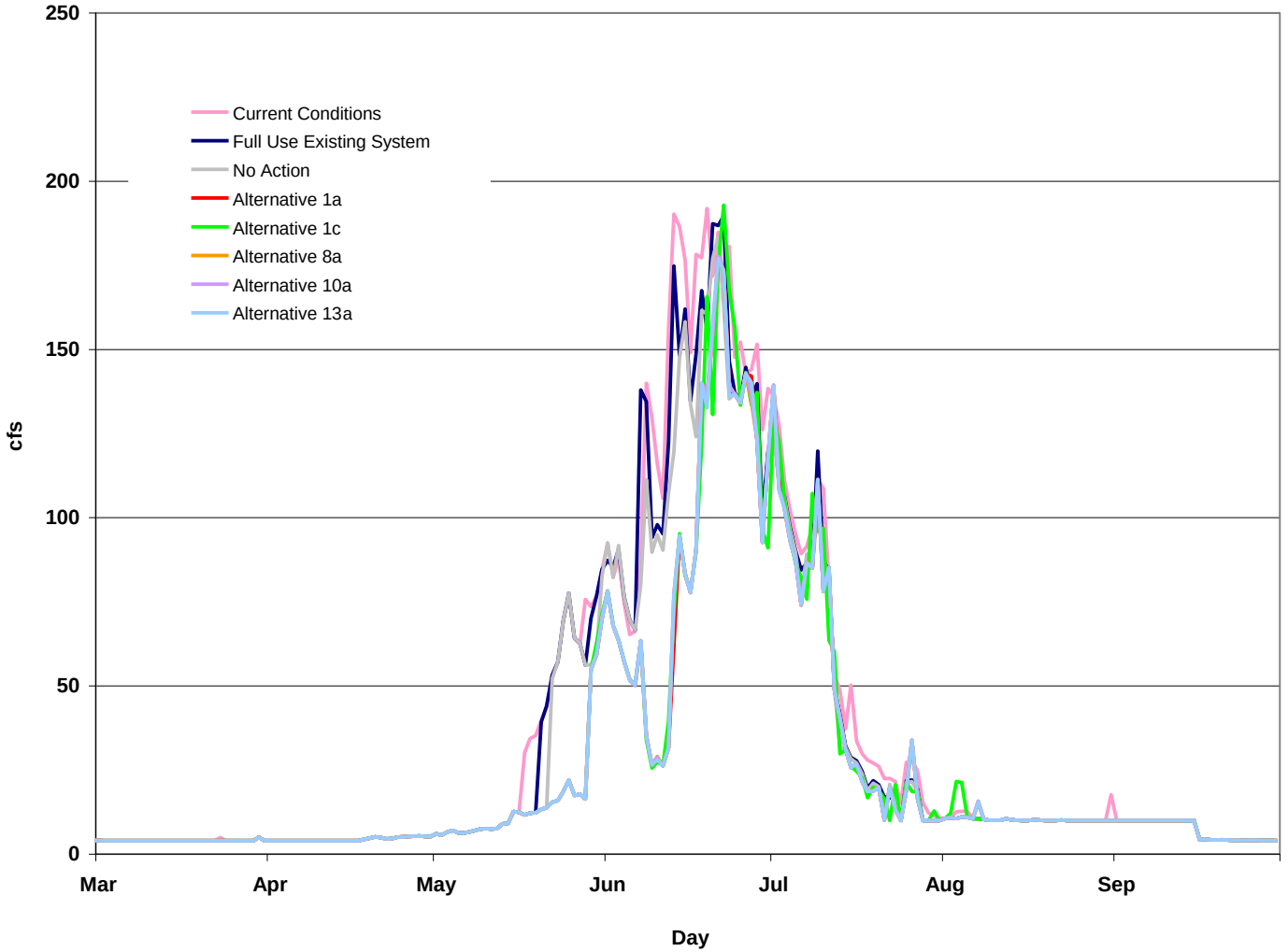


Figure H-4.18. Fraser River near Winter Park Gage – Dry Year Average Daily Flow (cfs)

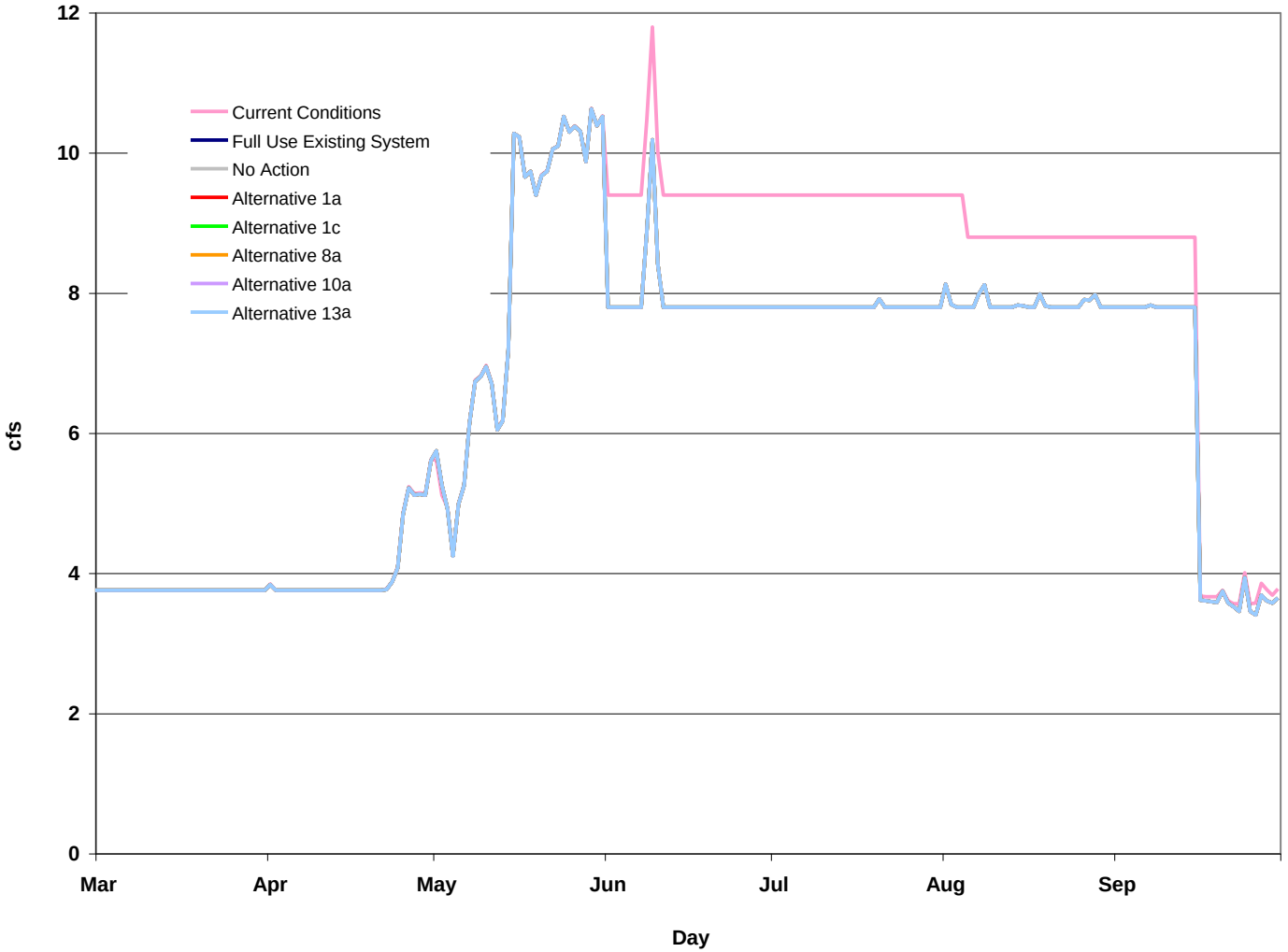


Figure H-4.19. Vasquez Creek below the Gumlick Tunnel – Average Daily Flow (cfs)

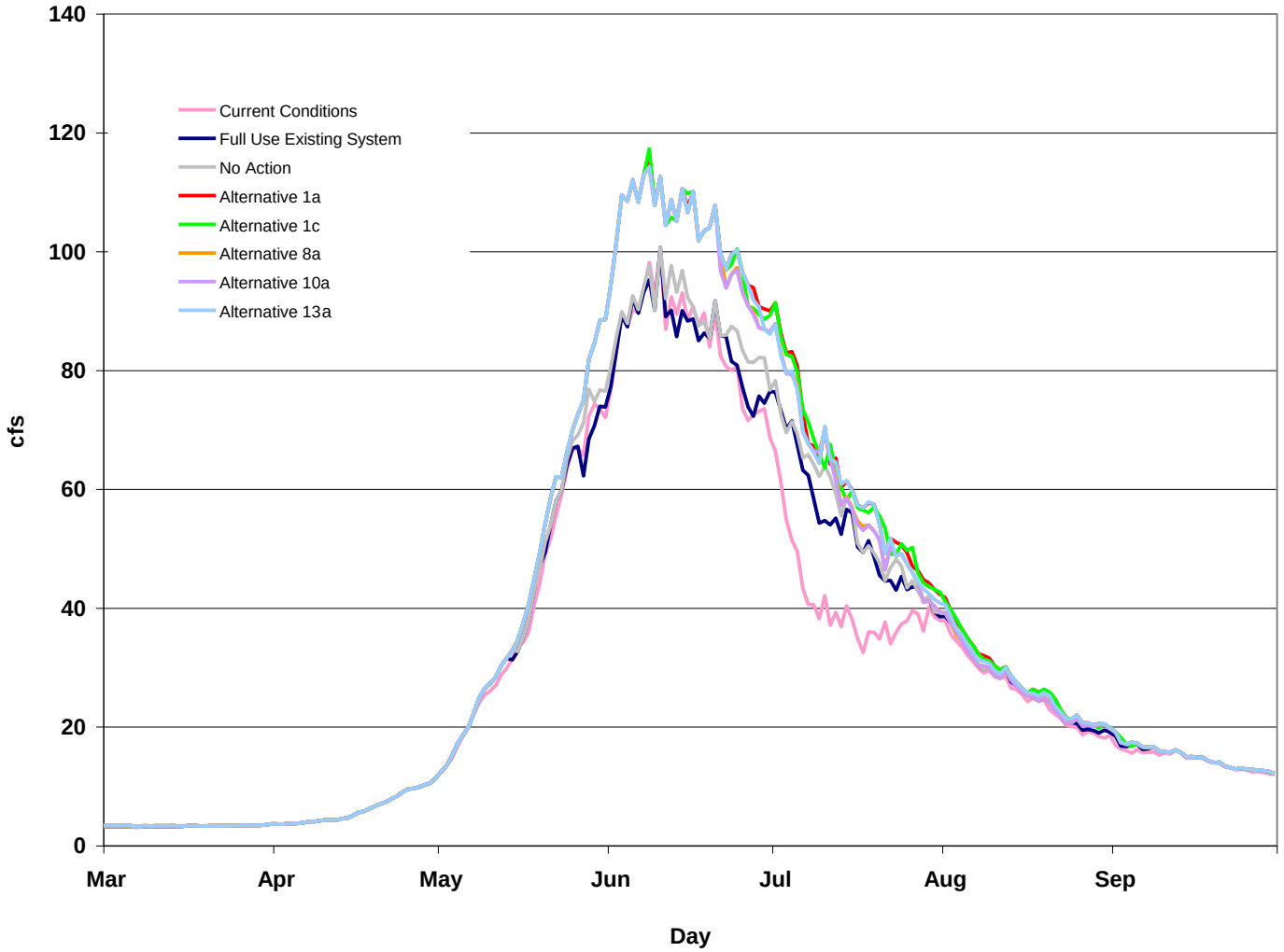


Figure H-4.20. Vasquez Creek below the Gumlick Tunnel – Wet Year Average Daily Flow (cfs)

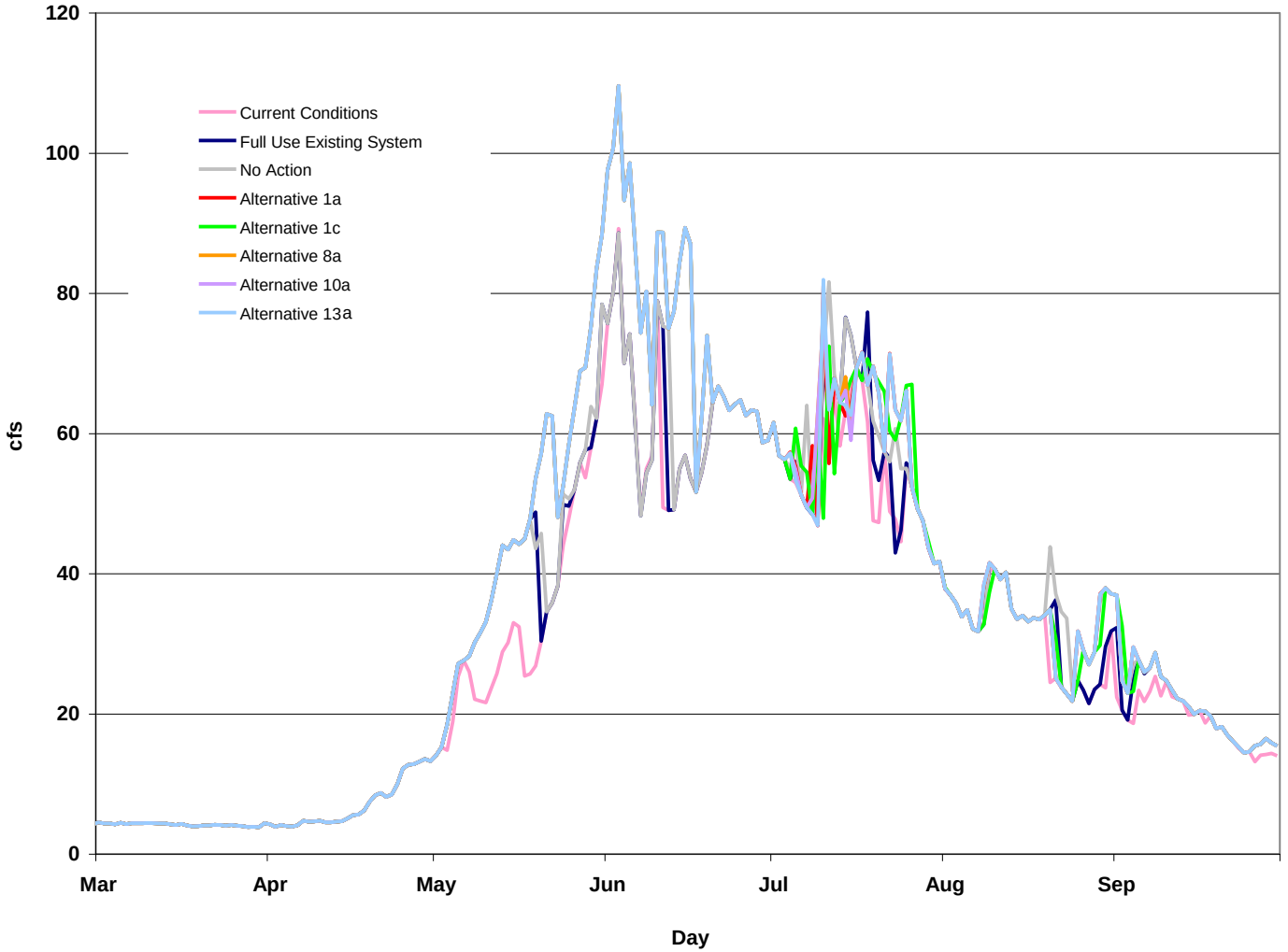


Figure H-4.21. Vasquez Creek below the Gumlick Tunnel – Dry Year Average Daily Flow (cfs)

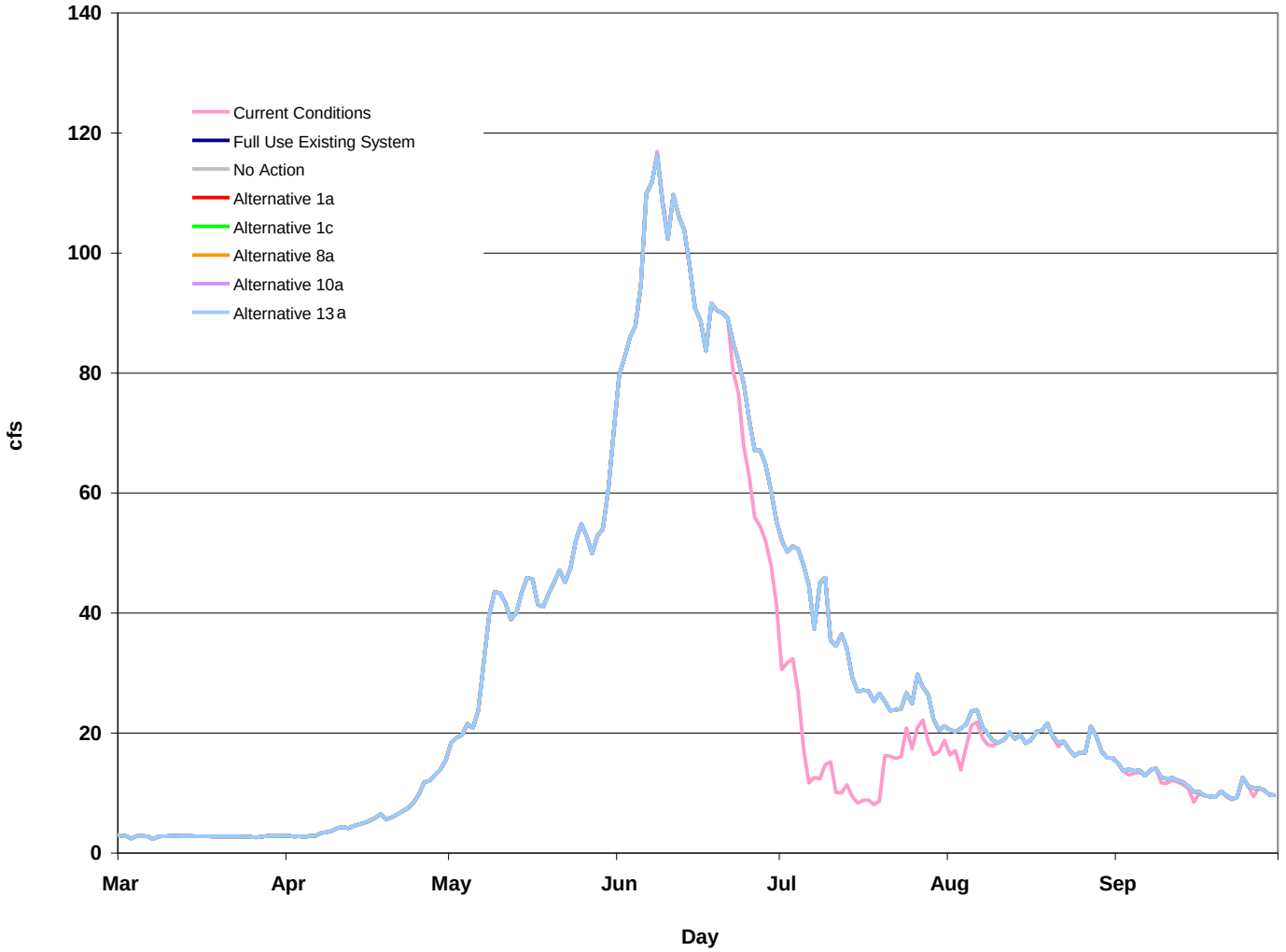


Figure H-4.22. Below Denver Water's Diversion from Vasquez Creek – Average Daily Flow (cfs)

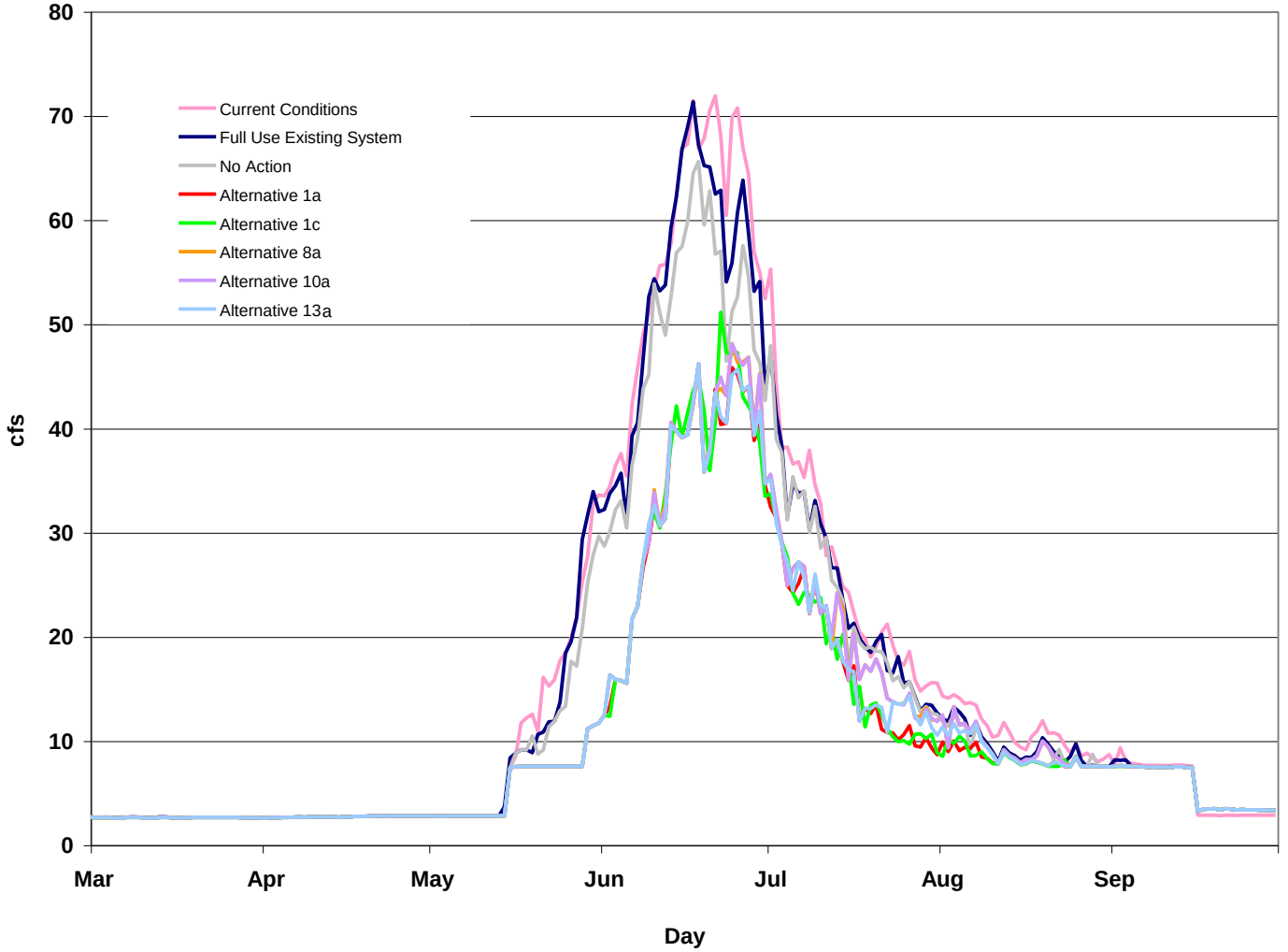


Figure H-4.23. Below Denver Water's Diversion from Vasquez Creek – Wet Year Average Daily Flow (cfs)

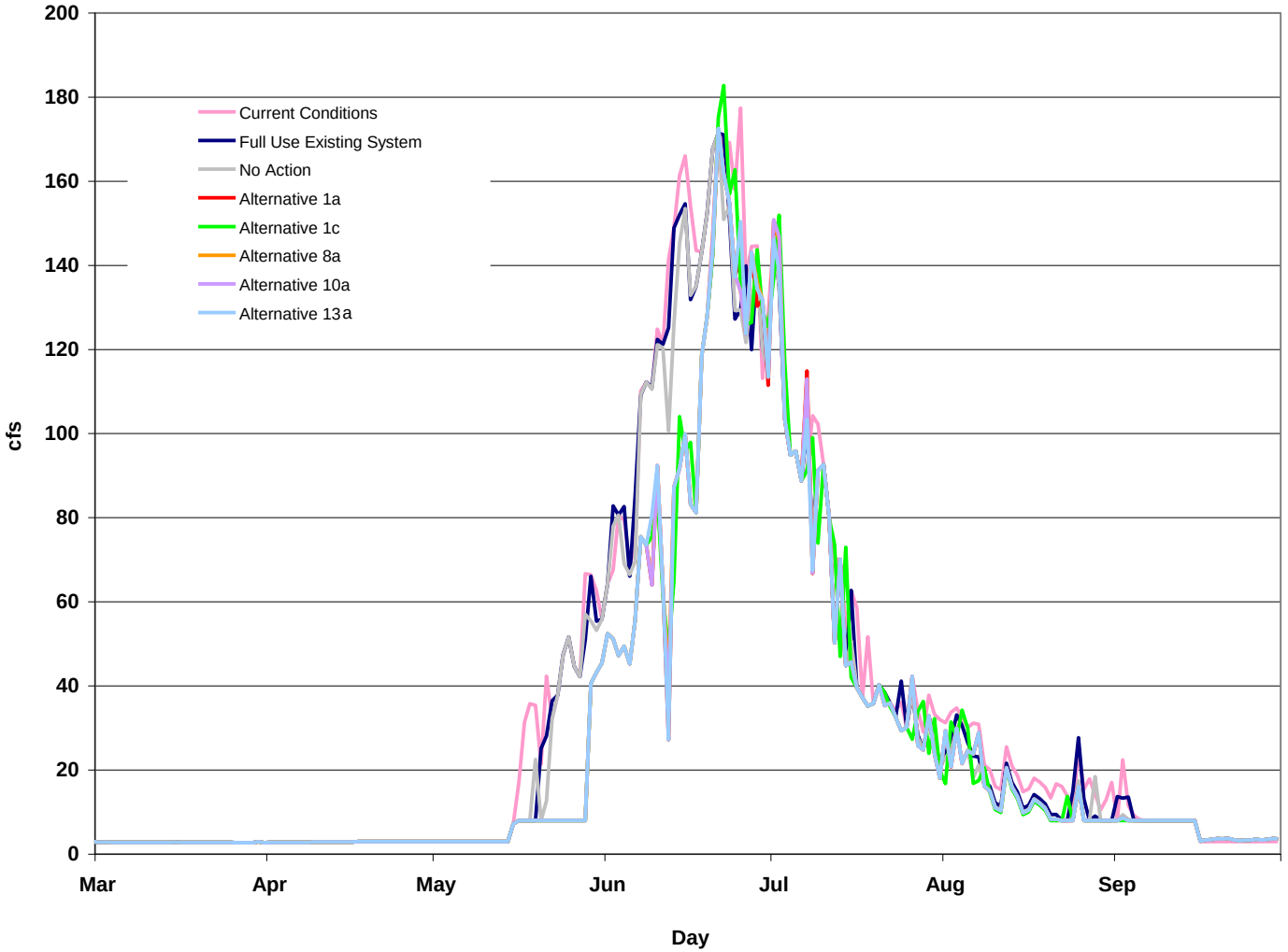


Figure H-4.24. Below Denver Water's Diversion from Vasquez Creek – Dry Year Average Daily Flow (cfs)

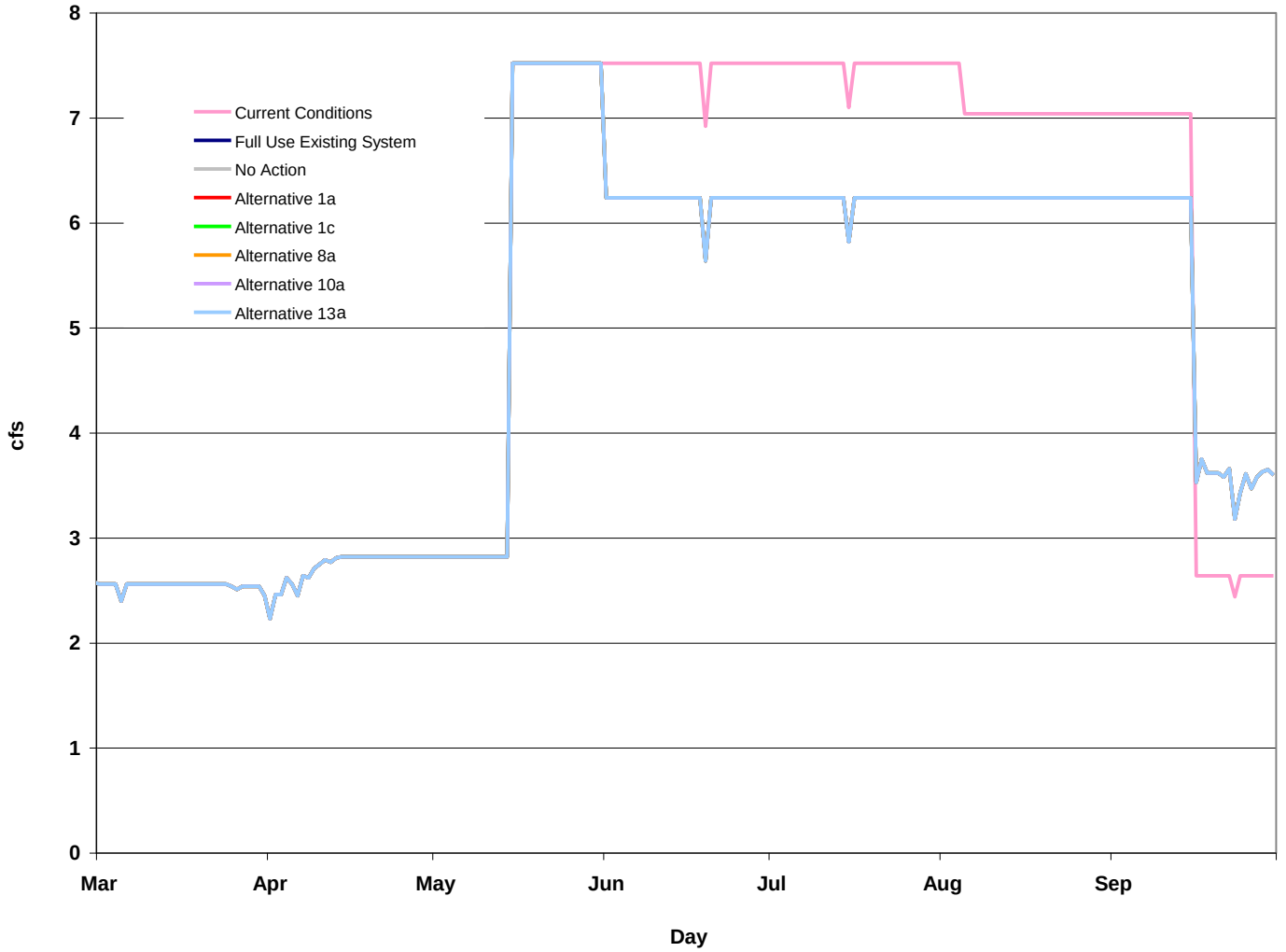


Figure H-4.25. Below Denver Water's Diversion from Little Vasquez Creek – Average Daily Flow (cfs)

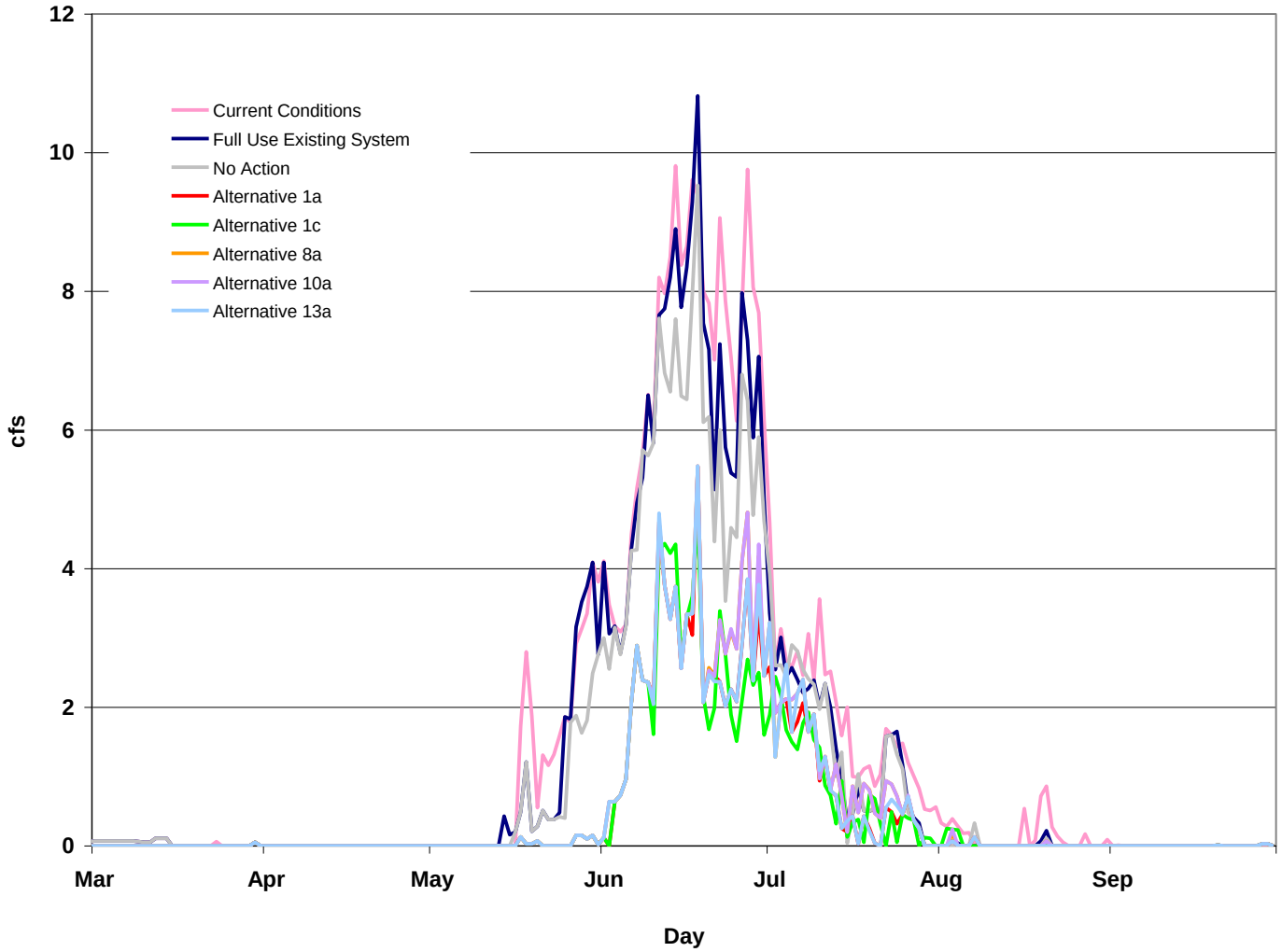


Figure H-4.26. Below Denver Water's Diversion from Little Vasquez Creek – Wet Year Average Daily Flow (cfs)

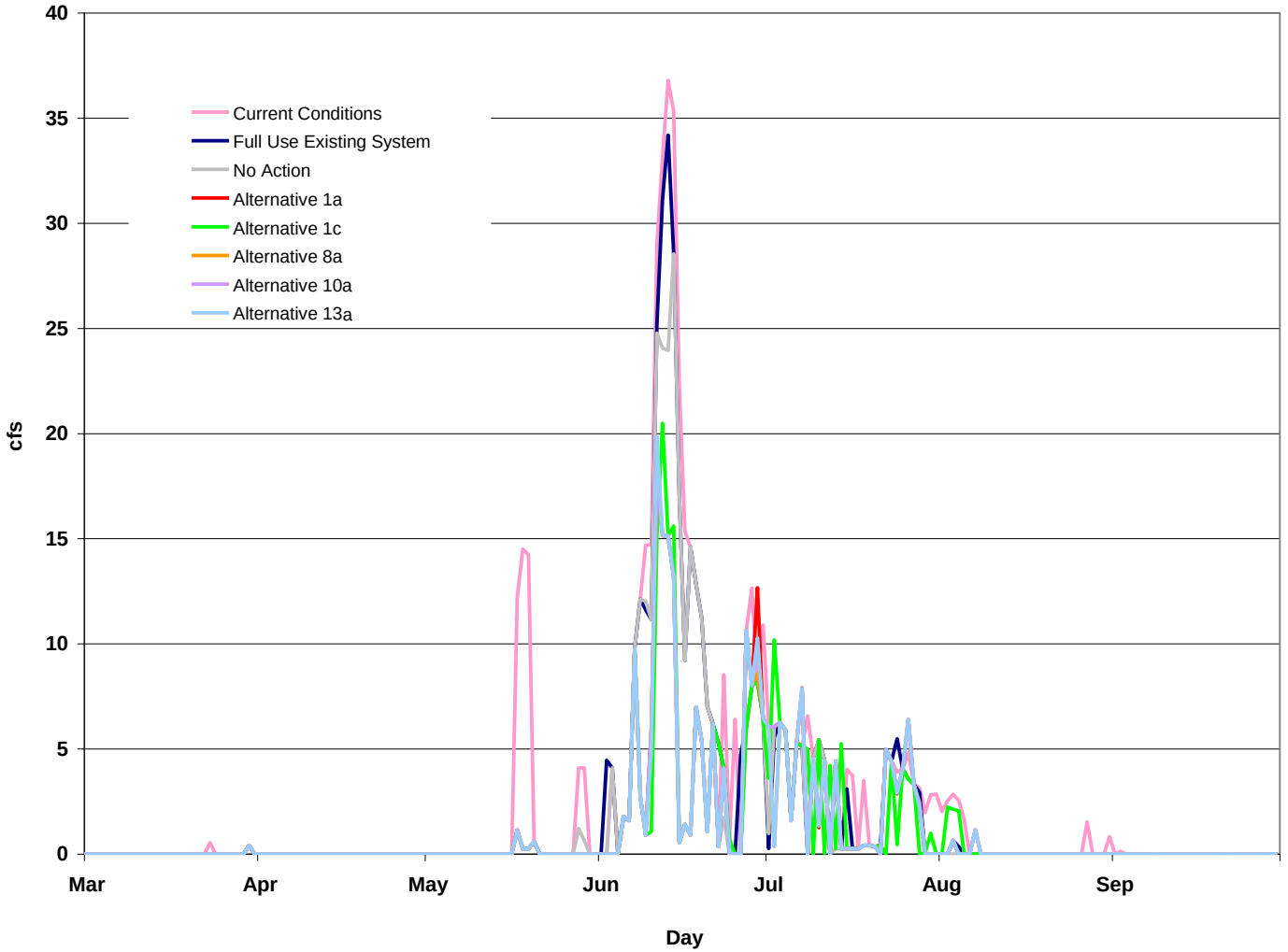


Figure H-4.27. Below Denver Water's Diversion from Little Vasquez Creek – Dry Year Average Daily Flow (cfs)

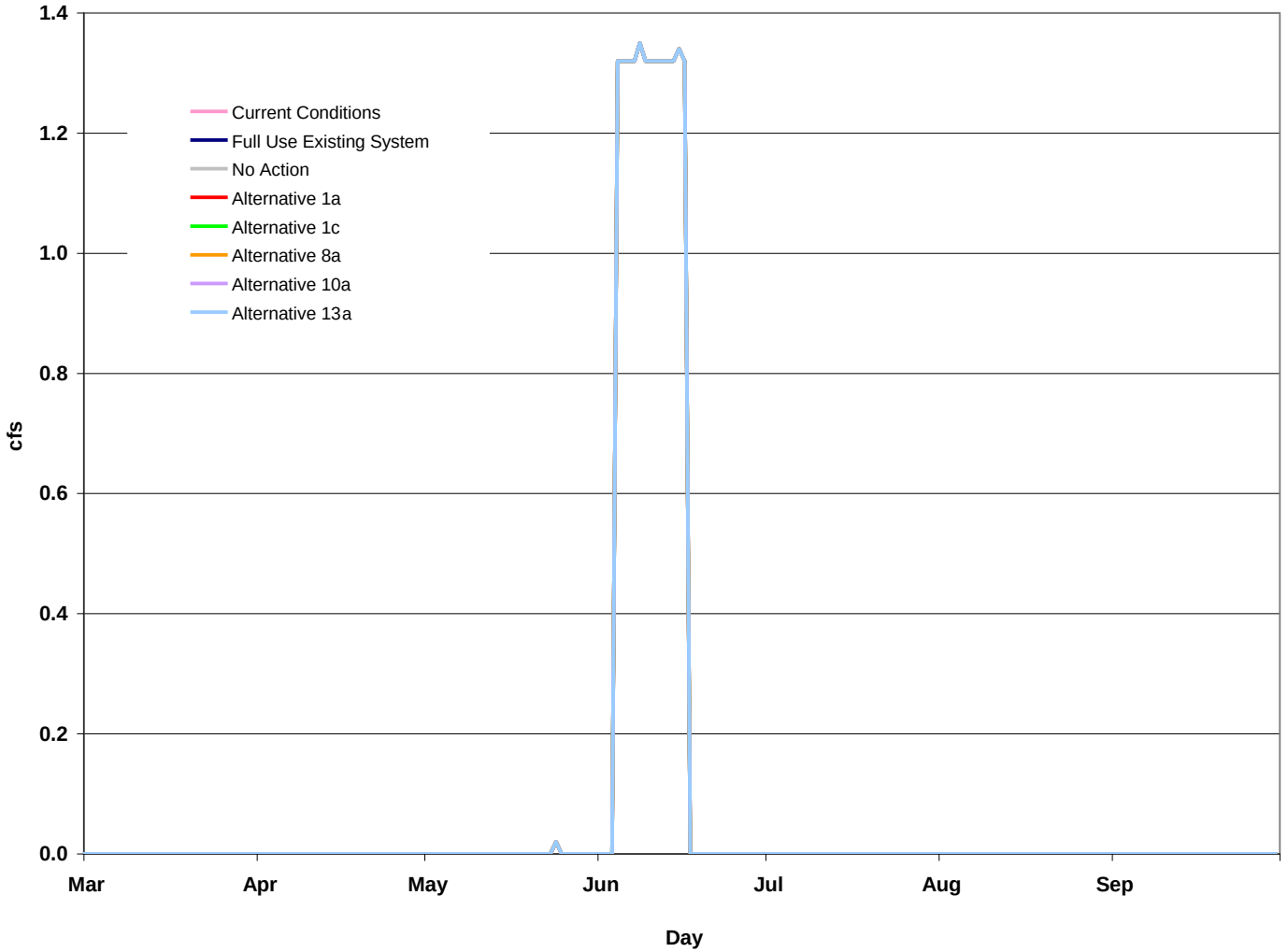


Figure H-4.28. Vasquez Creek Gage – Average Daily Flow (cfs)

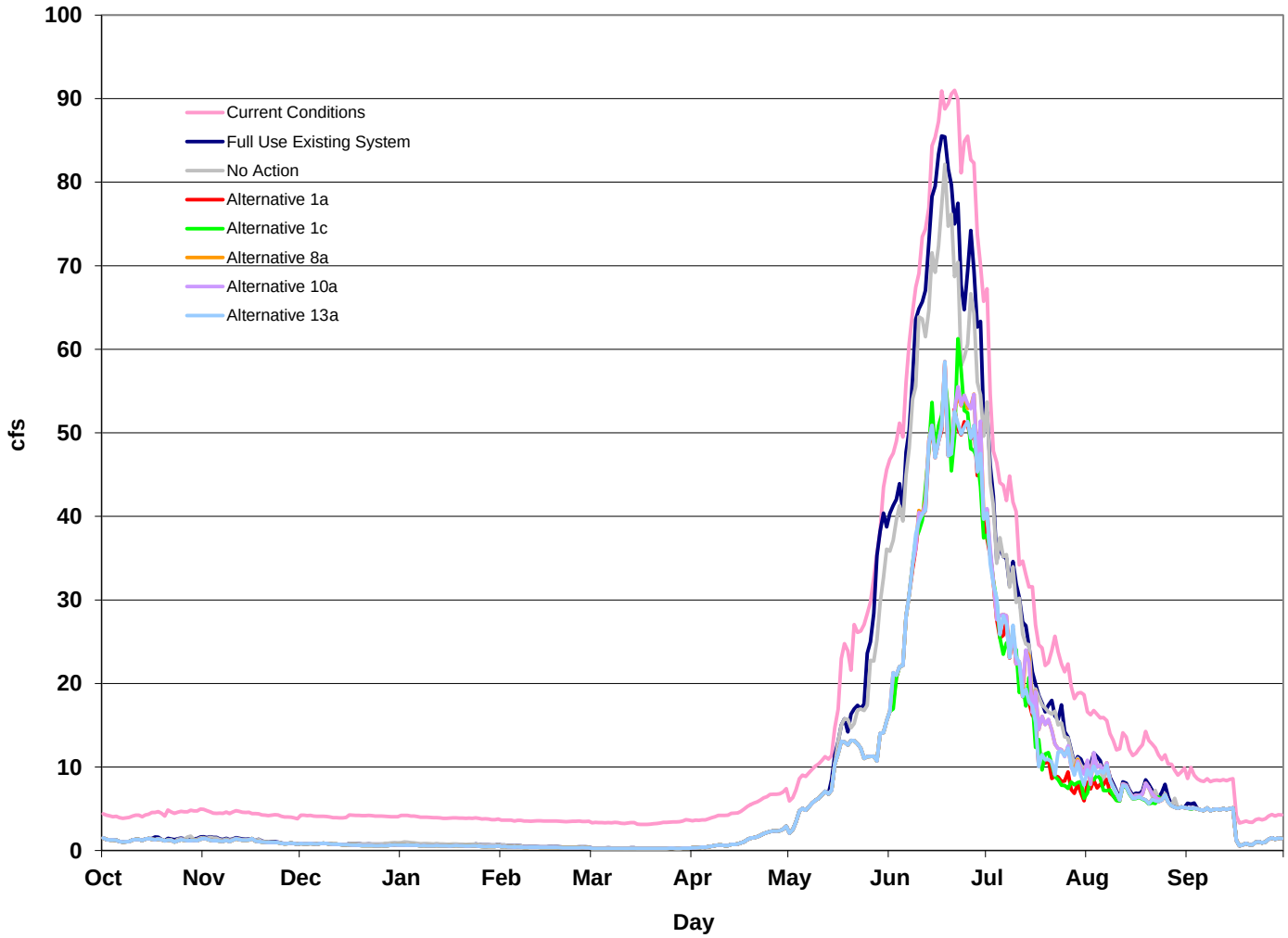


Figure H-4.29. Vasquez Creek Gage – Wet Year Average Daily Flow (cfs)

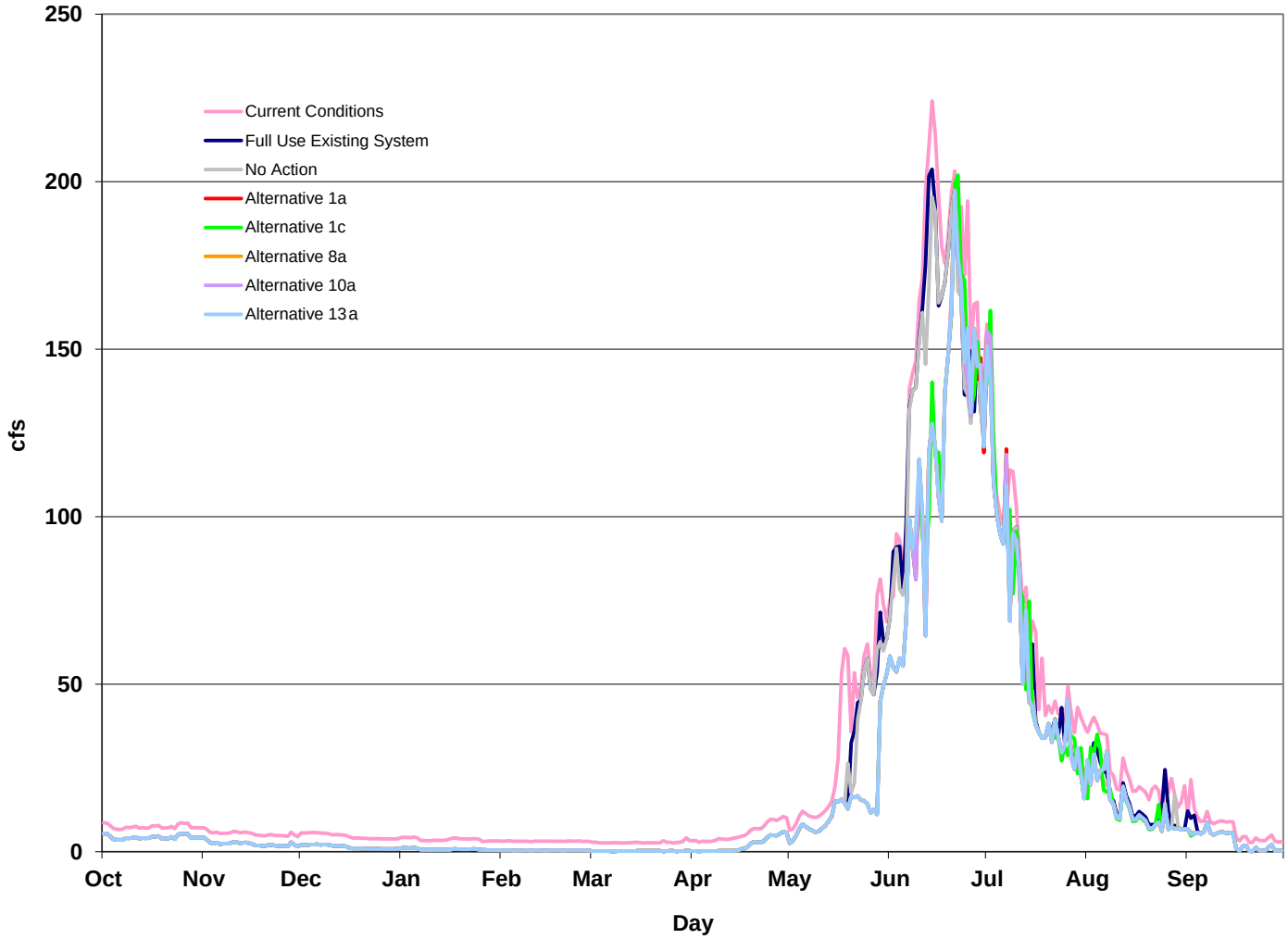


Figure H-4.30. Vasquez Creek Gage – Dry Year Average Daily Flow (cfs)

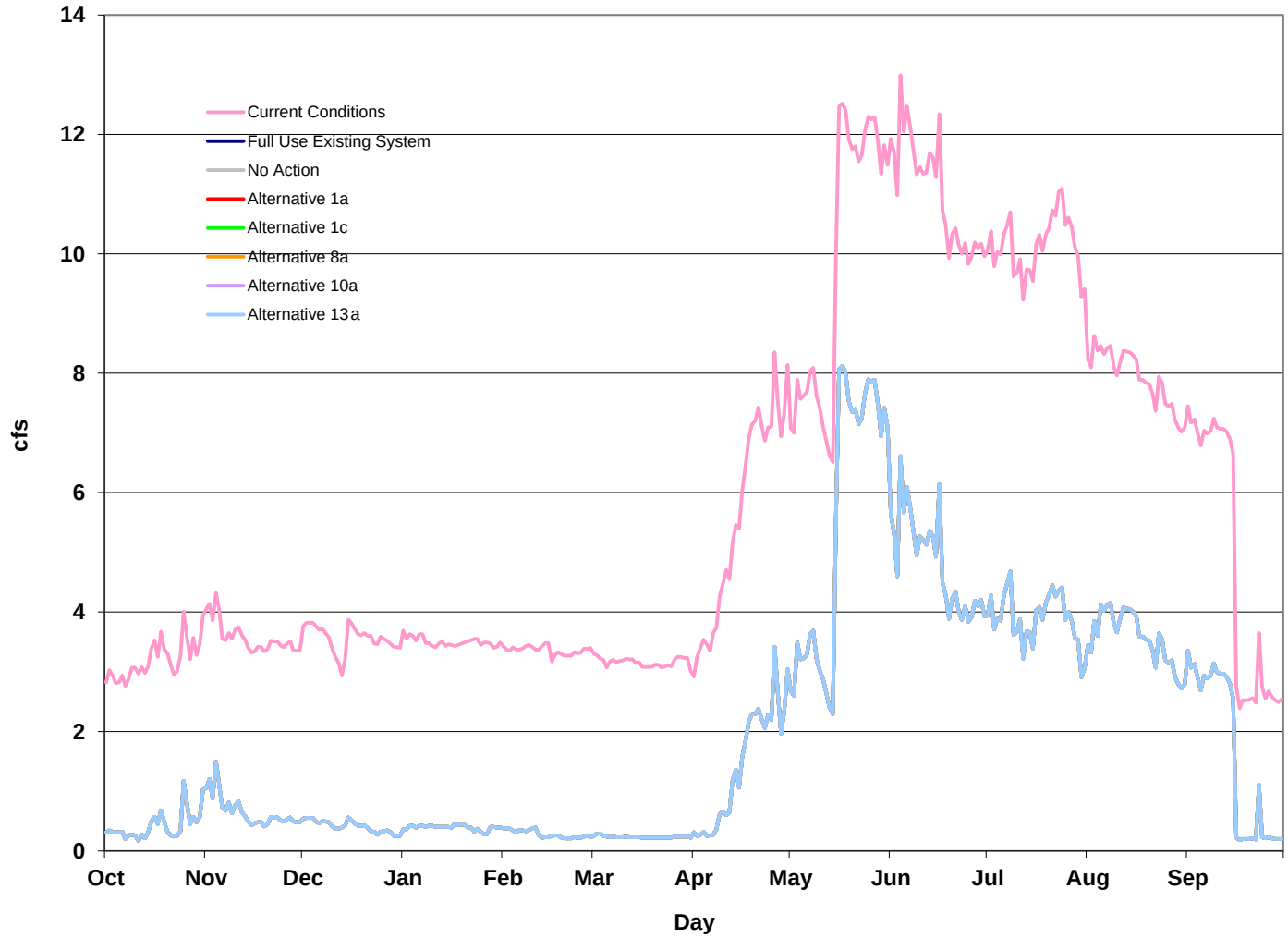


Figure H-4.31. Fraser River below Vasquez Creek – Average Daily Flow (cfs)

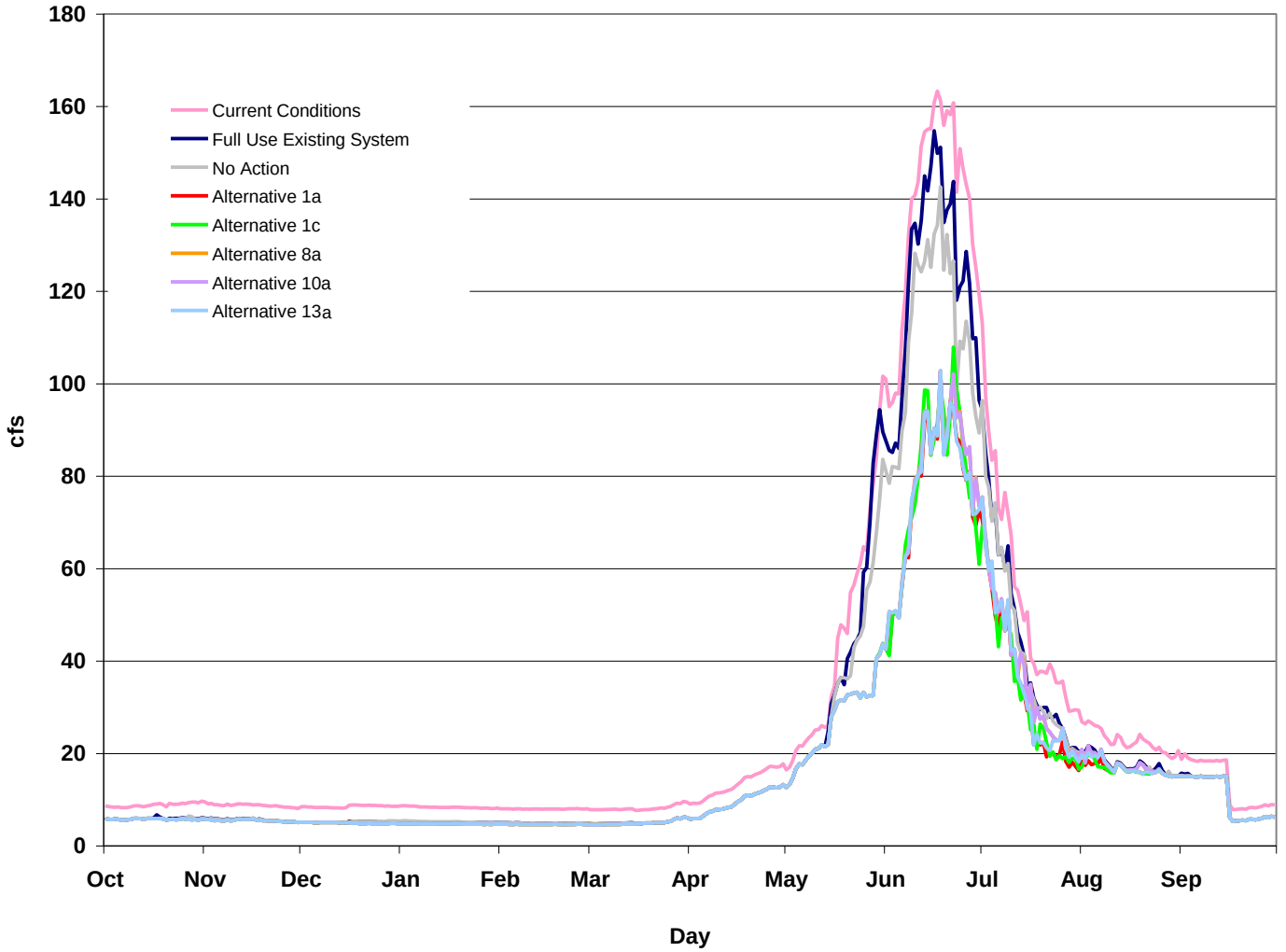


Figure H-4.32. Fraser River below Vasquez Creek – Wet Year Average Daily Flow (cfs)

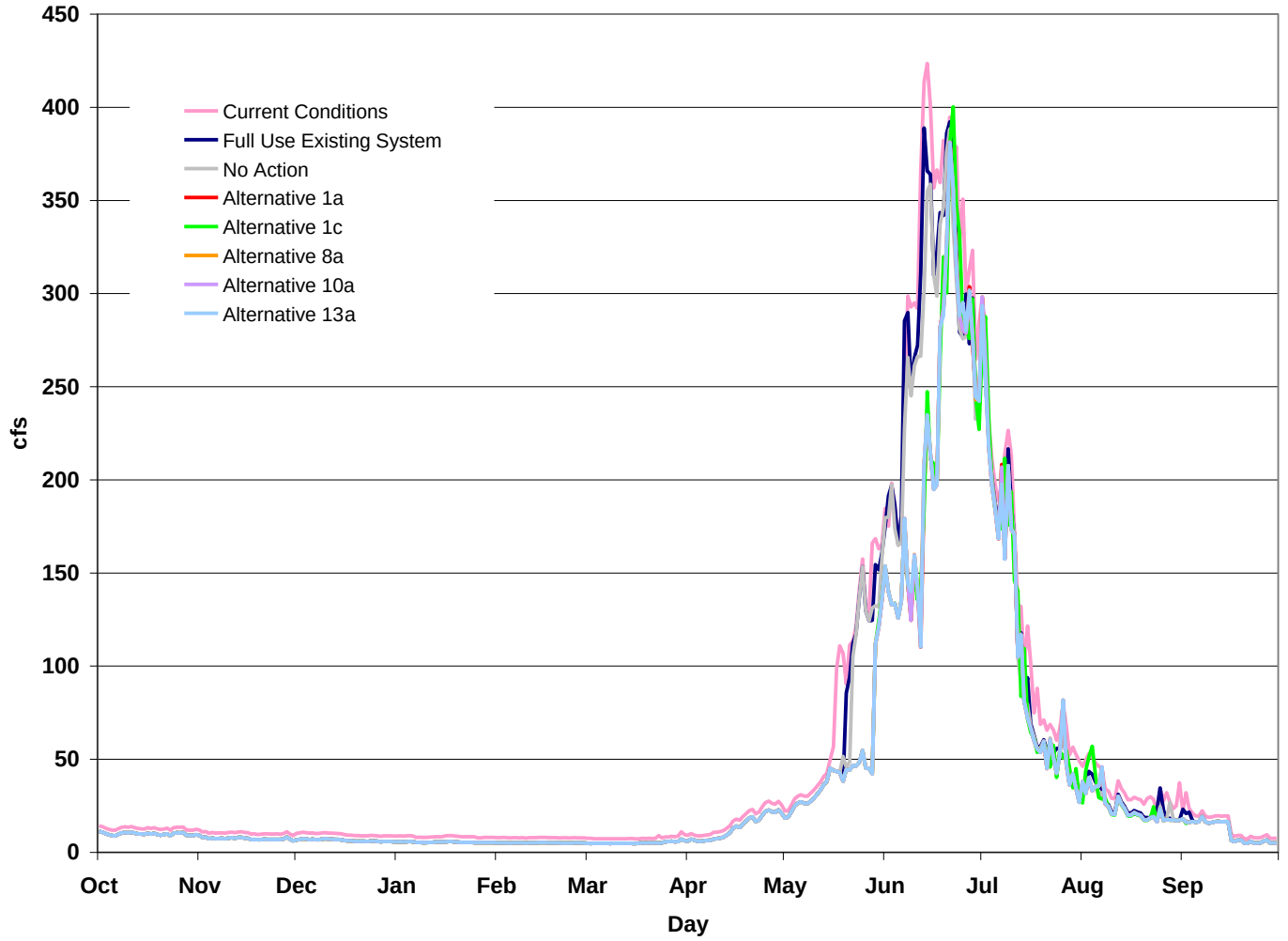


Figure H-4.33. Fraser River below Vasquez Creek – Dry Year Average Daily Flow (cfs)

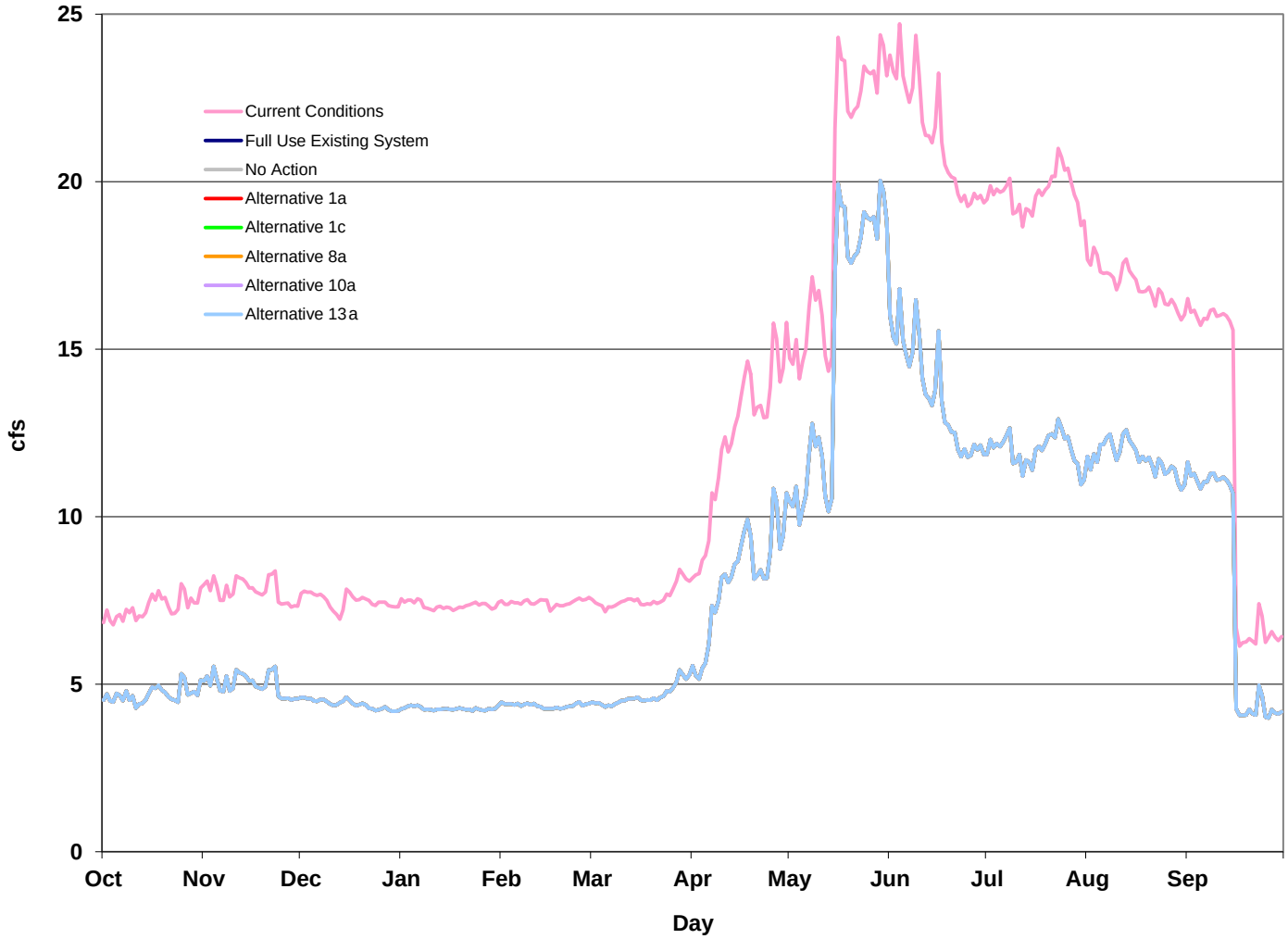


Figure H-4.34. Below Denver Water's Diversions from Elk Creek and Tributaries – Average Daily Flow (cfs)

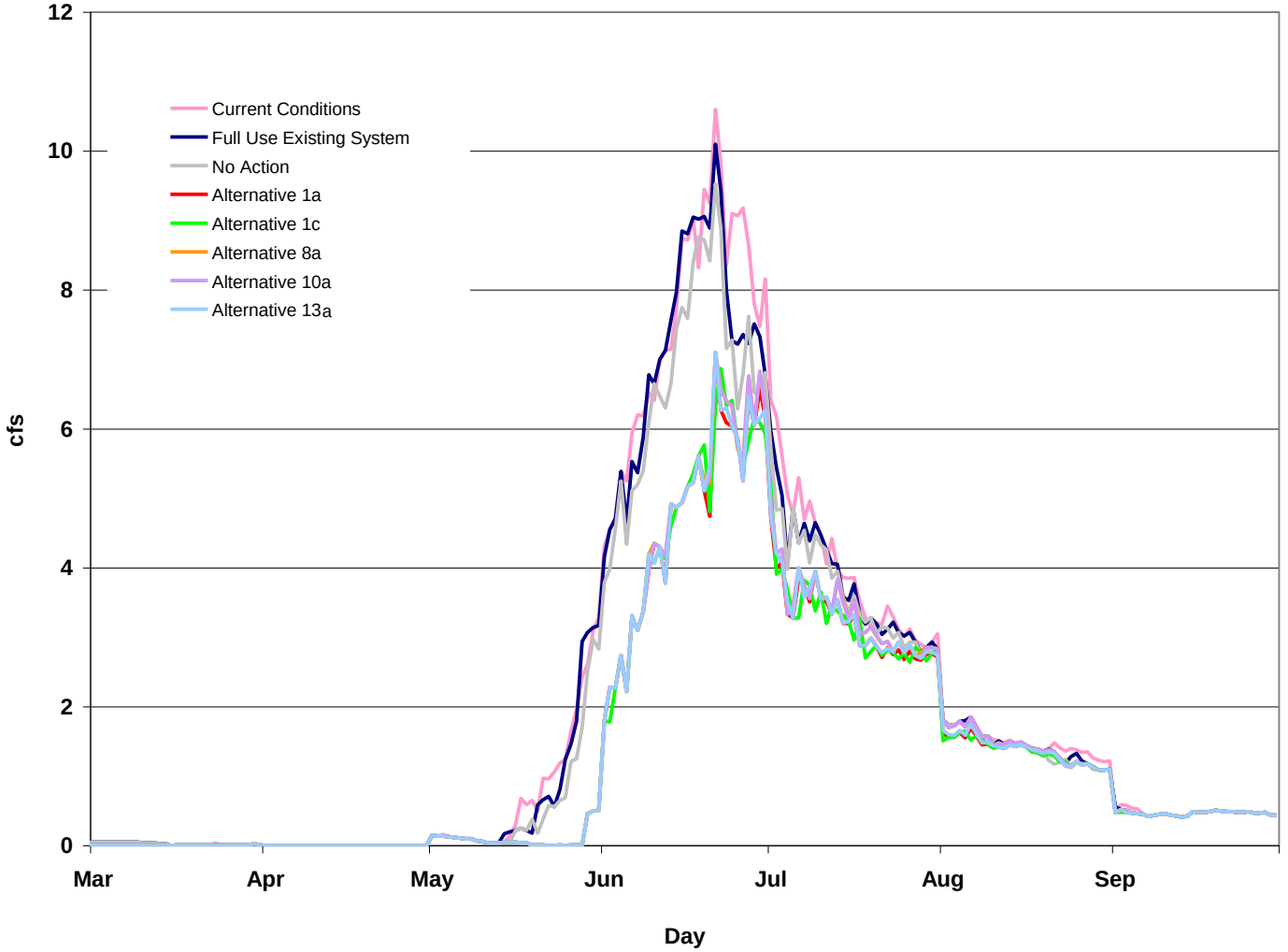


Figure H-4.35. Below Denver Water's Diversions from Elk Creek and Tributaries – Wet Year Average Daily Flow (cfs)

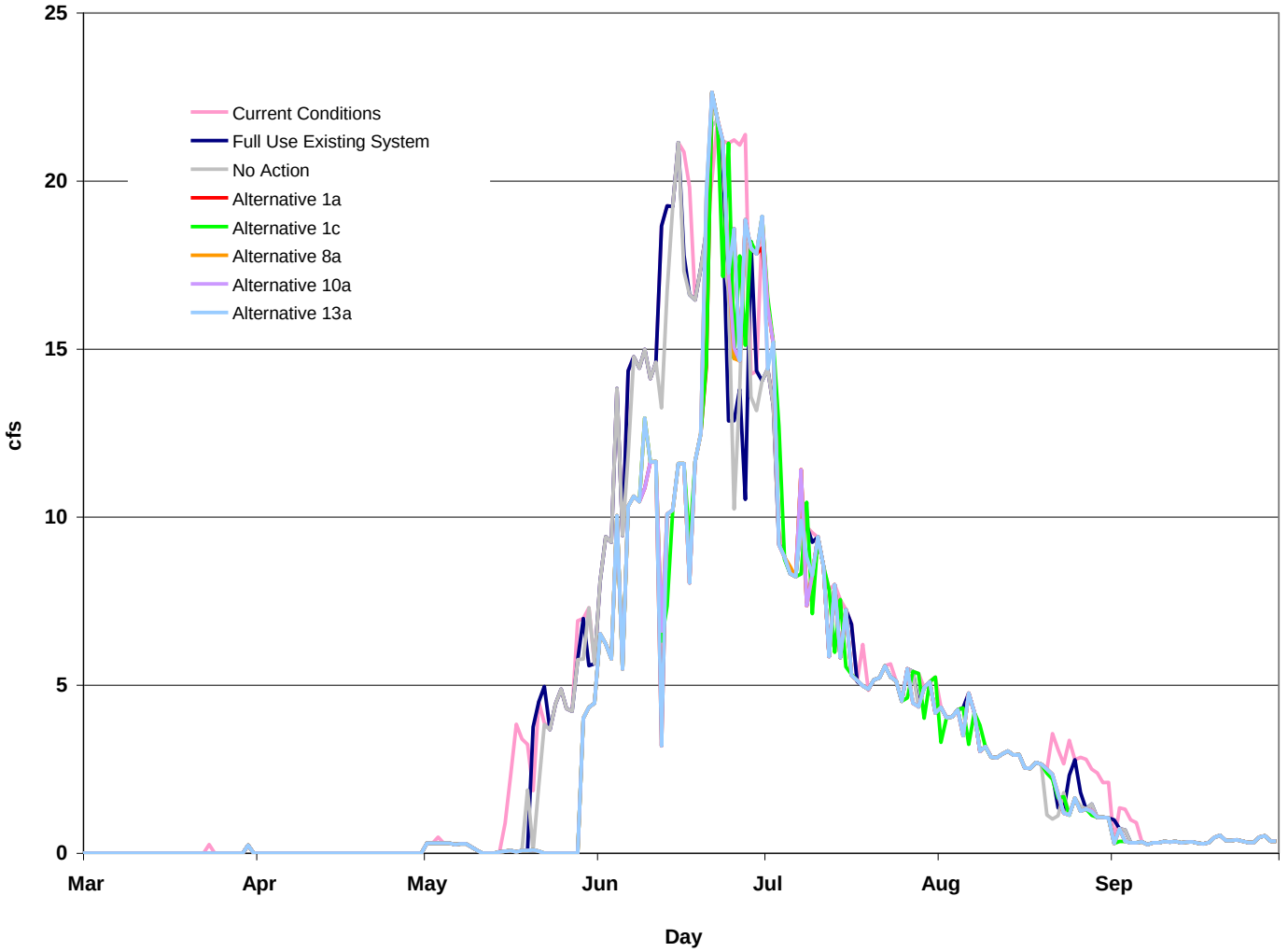


Figure H-4.36. Below Denver Water's Diversions from Elk Creek and Tributaries – Dry Year Average Daily Flow (cfs)

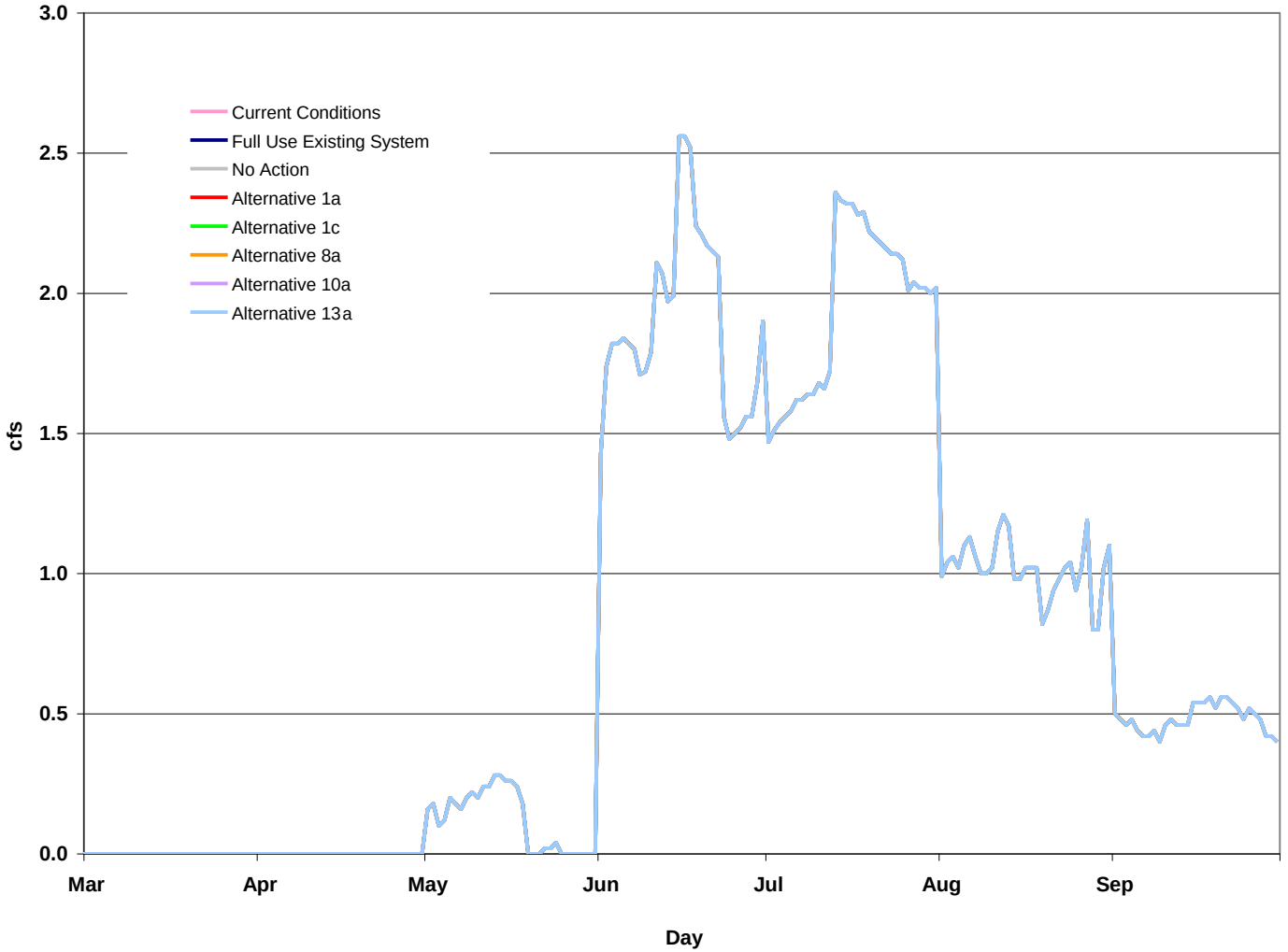


Figure H-4.37. Below Denver Water's Diversion from St. Louis Creek – Average Daily Flow (cfs)

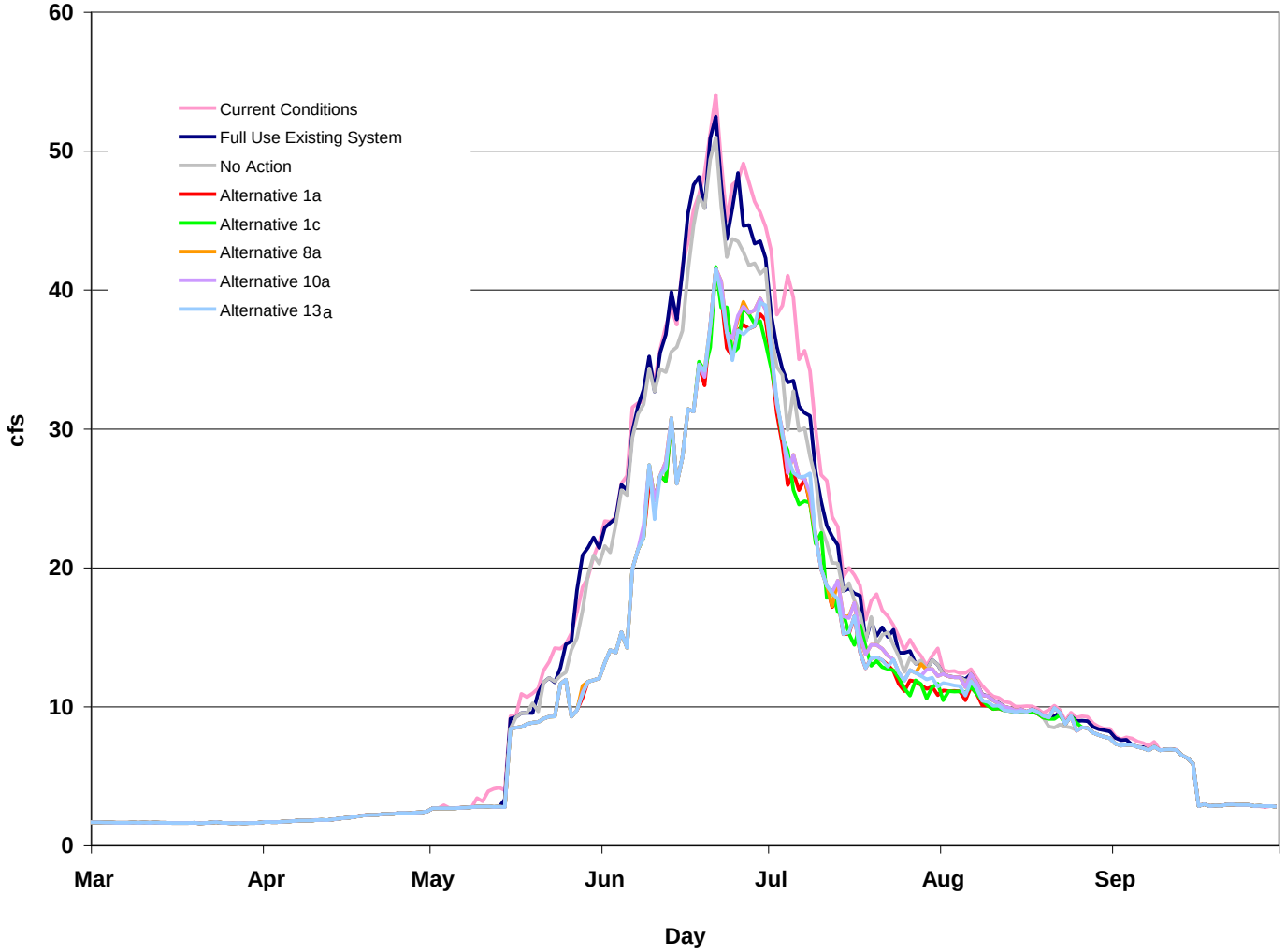


Figure H-4.38. Below Denver Water's Diversion from St. Louis Creek – Wet Year Average Daily Flow (cfs)

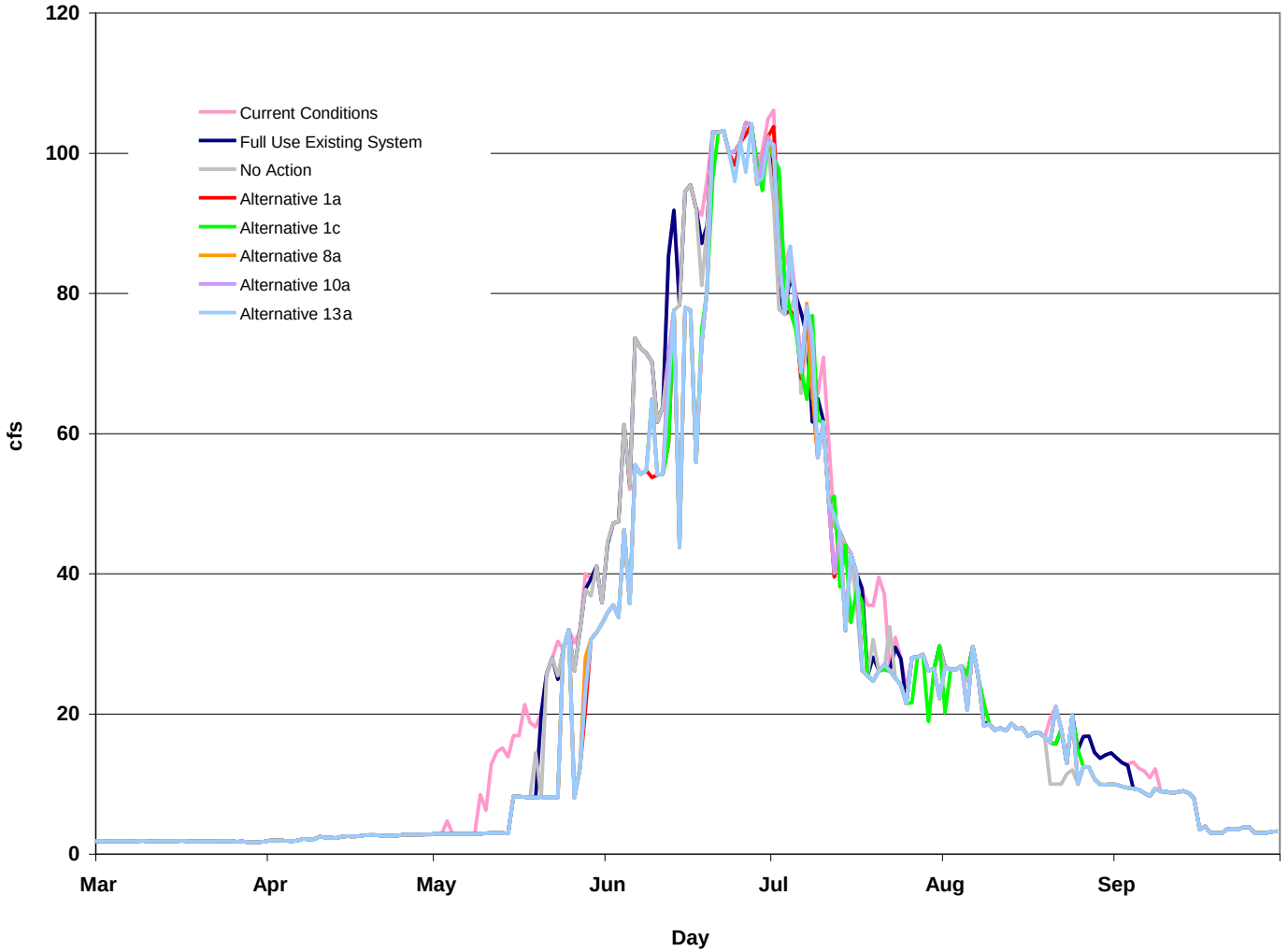


Figure H-4.39. Below Denver Water's Diversion from St. Louis Creek – Dry Year Average Daily Flow (cfs)

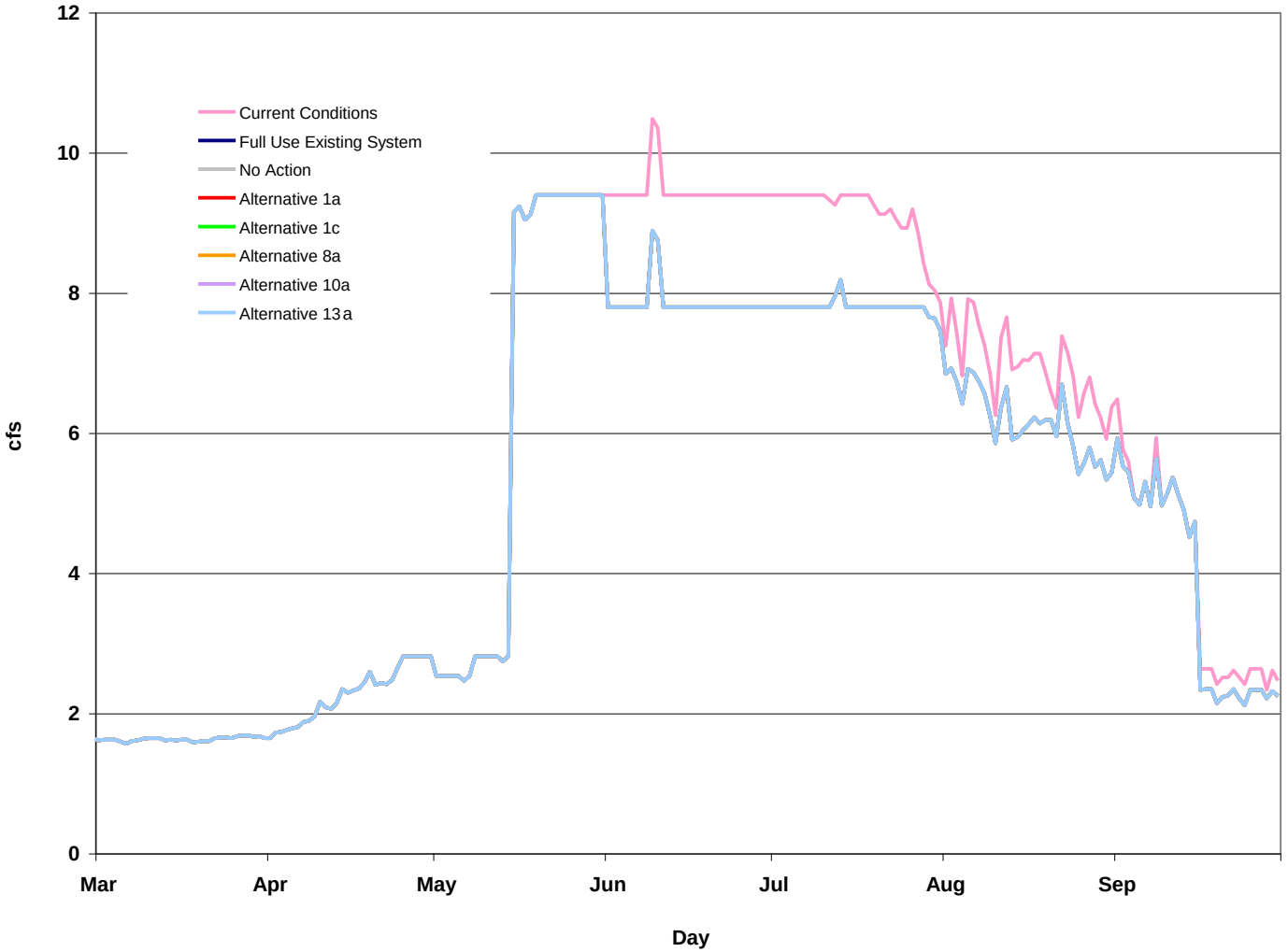


Figure H-4.40. Below Denver Water's Diversions from St. Louis Creek Tributaries – Average Daily Flow (cfs)

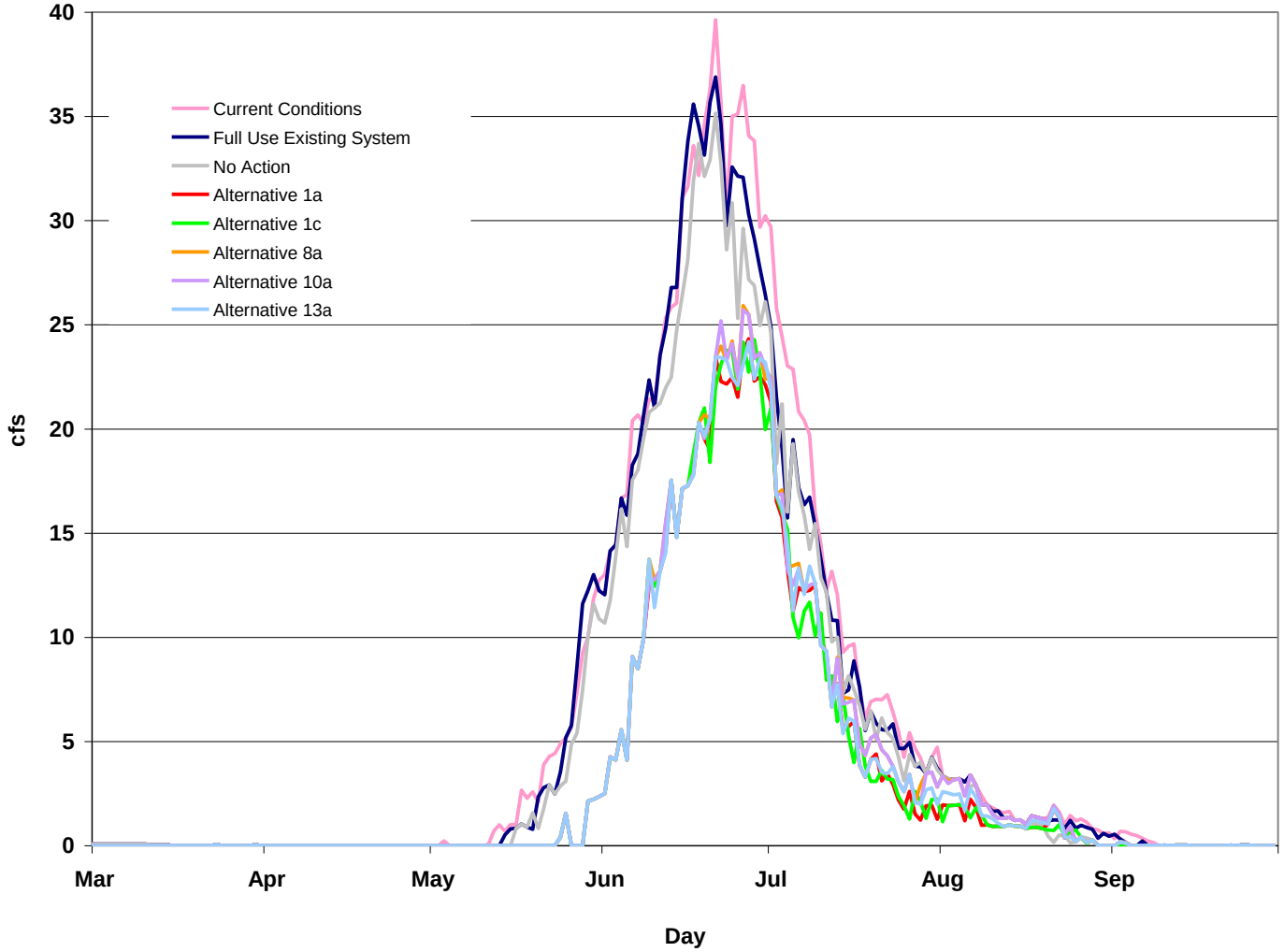


Figure H-4.41. Below Denver Water's Diversions from St. Louis Creek Tributaries – Wet Year Average Daily Flow (cfs)

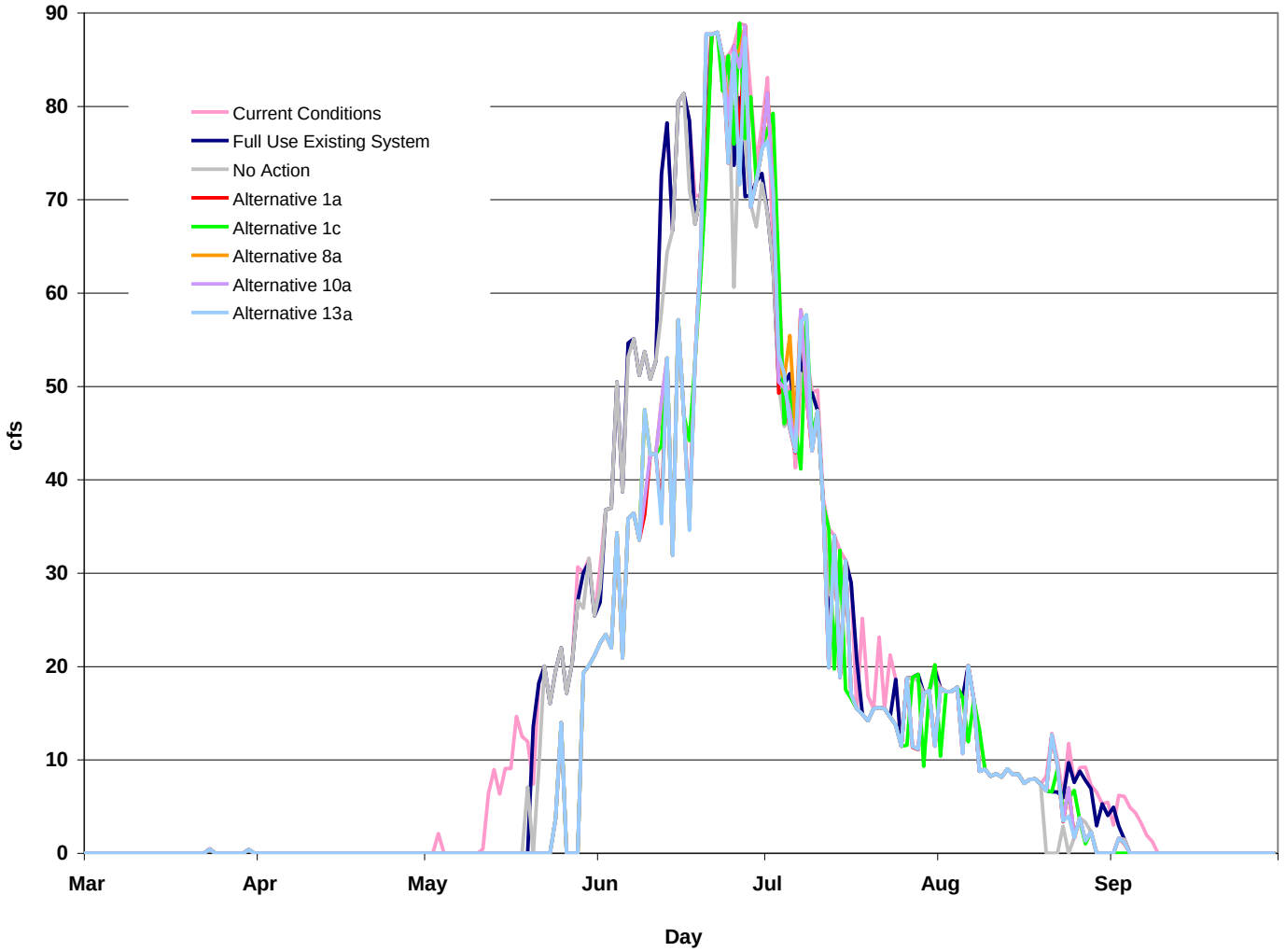


Figure H-4.42. Below Denver Water's Diversions from St. Louis Creek Tributaries – Dry Year Average Daily Flow (cfs)

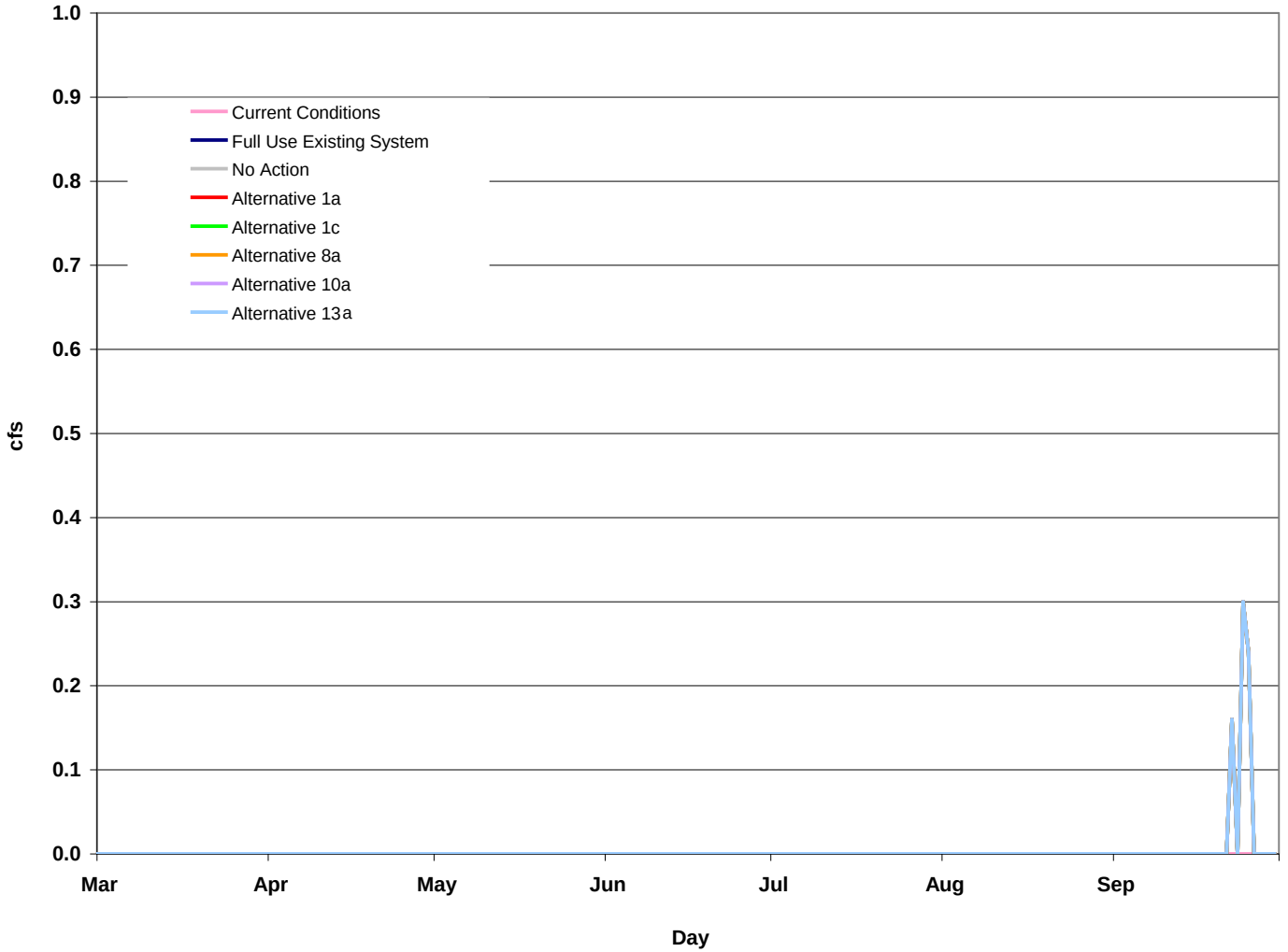


Figure H-4.43. St. Louis Creek near Fraser Gage – Average Daily Flow (cfs)

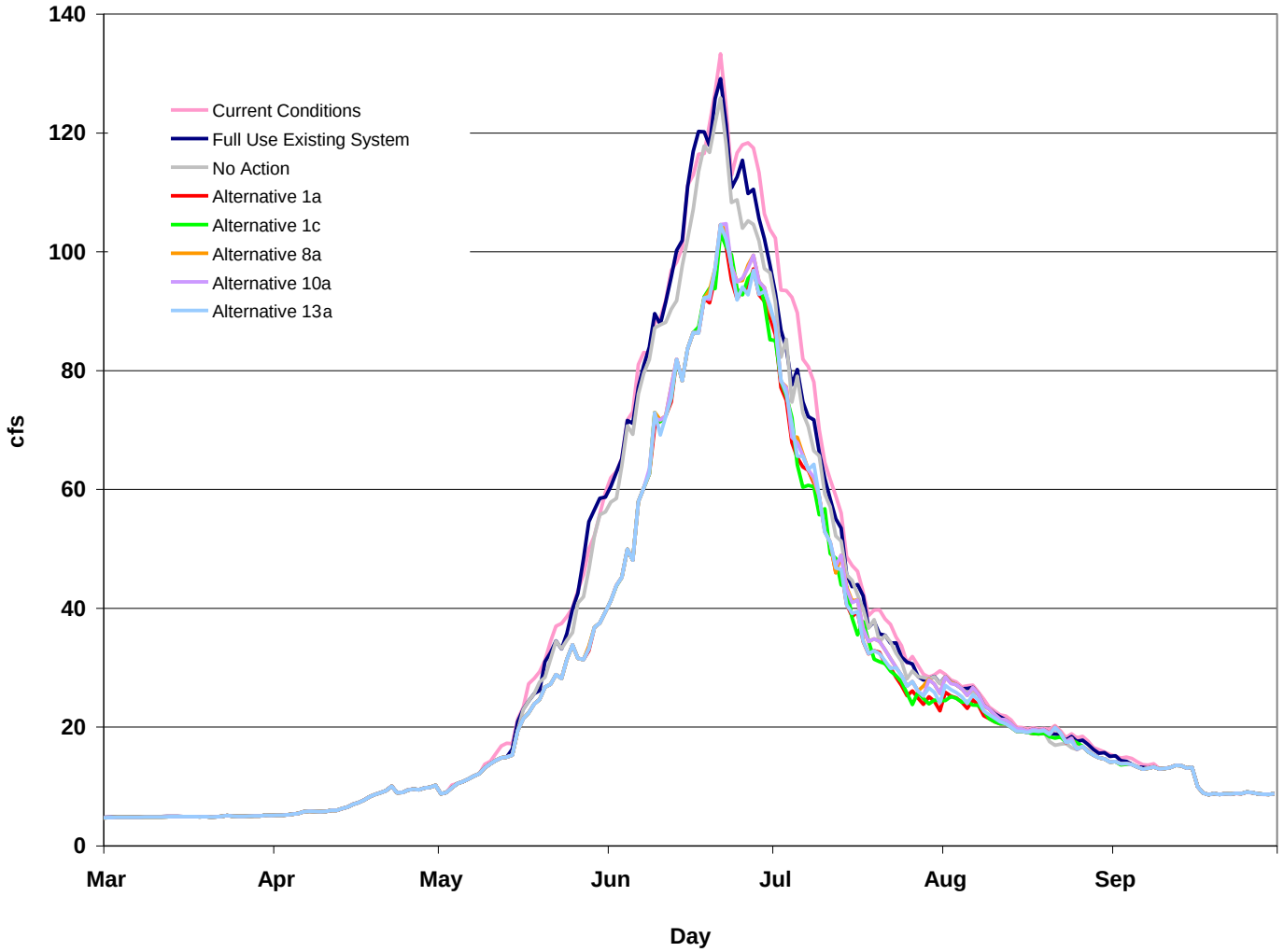


Figure H-4.44. St. Louis Creek near Fraser Gage – Wet Year Average Daily Flow (cfs)

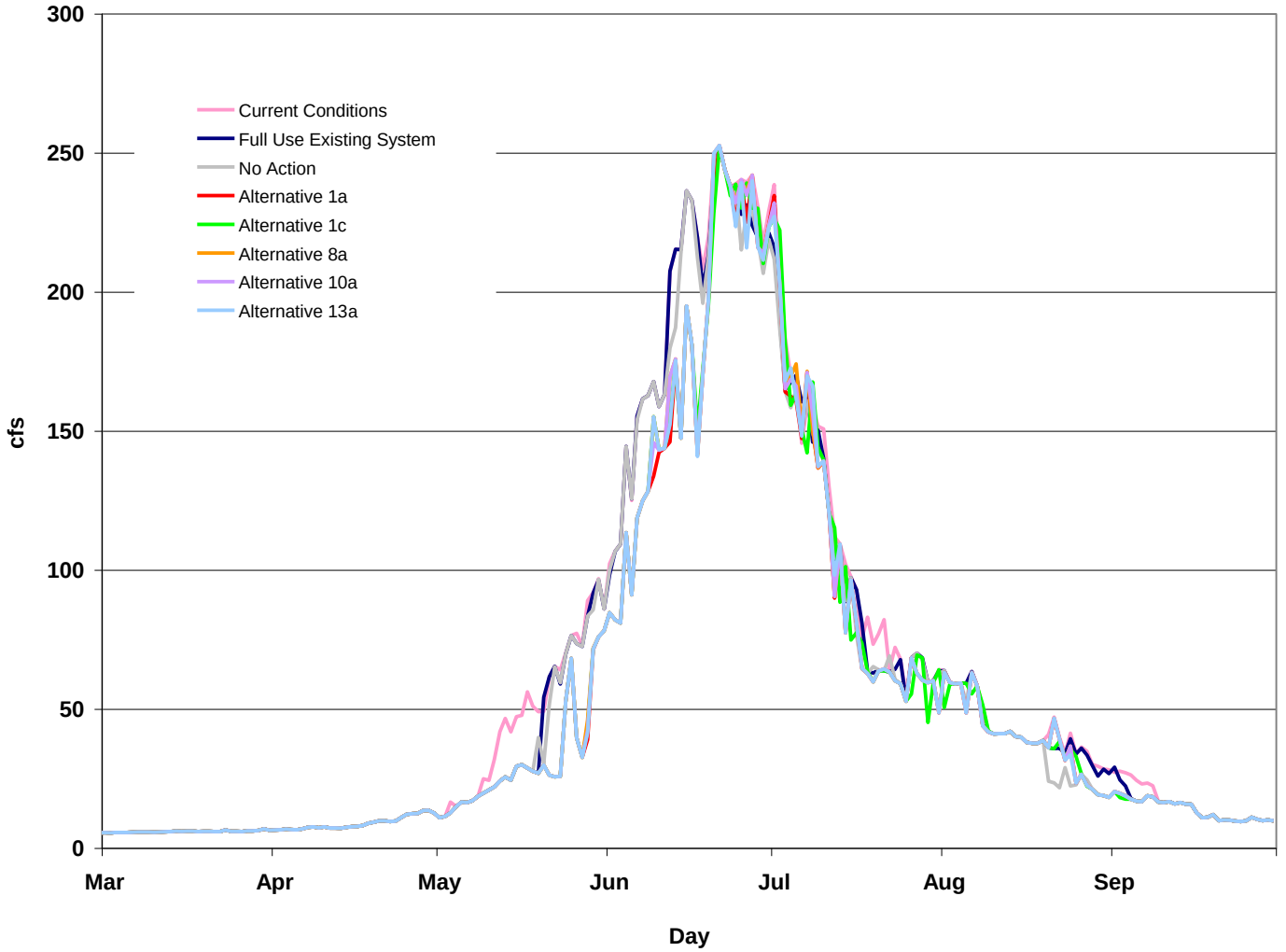


Figure H-4.45. St. Louis Creek near Fraser Gage – Dry Year Average Daily Flow (cfs)

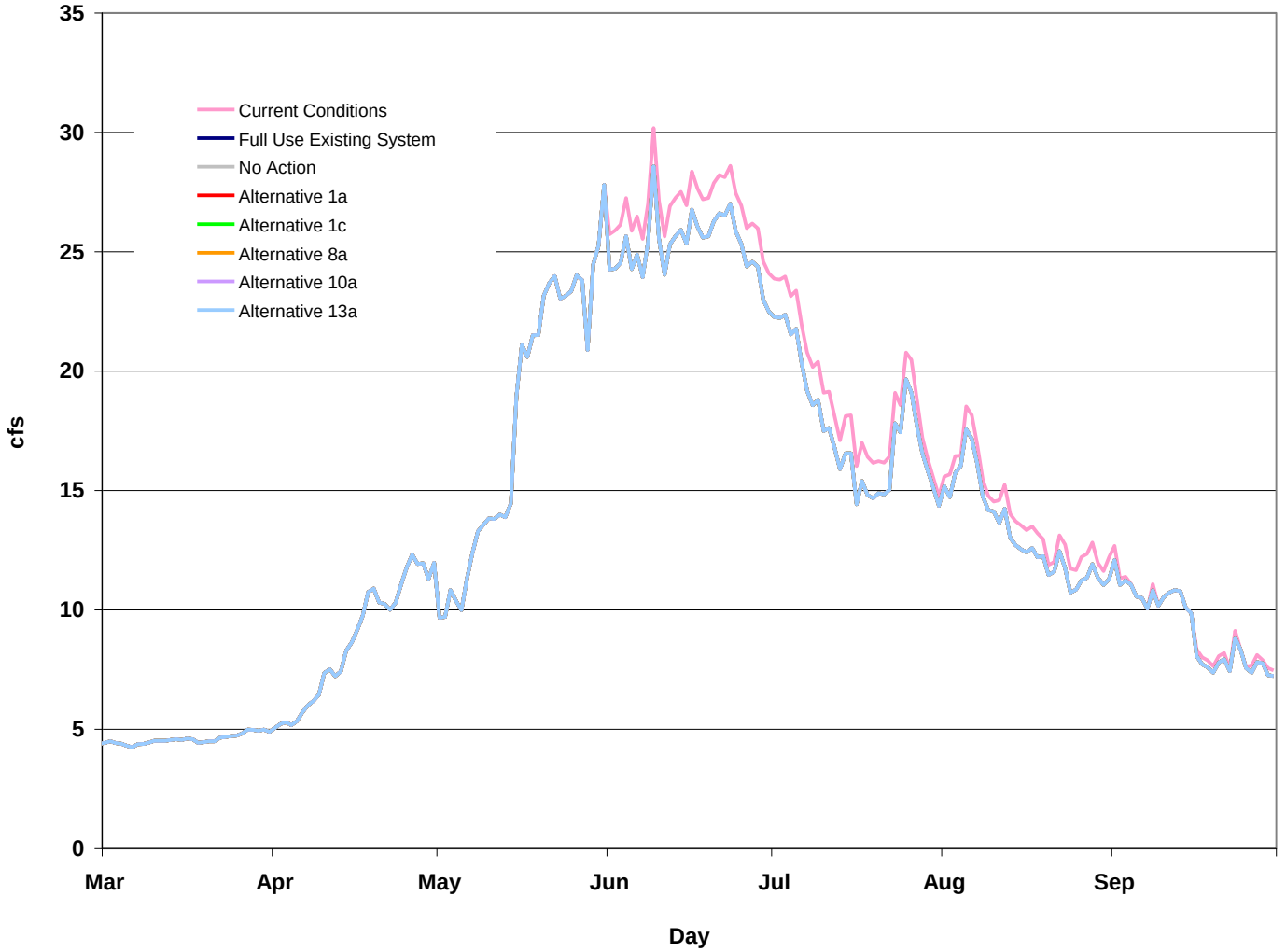


Figure H-4.46. Below Denver Water's Diversion from King Creek – Average Daily Flow (cfs)

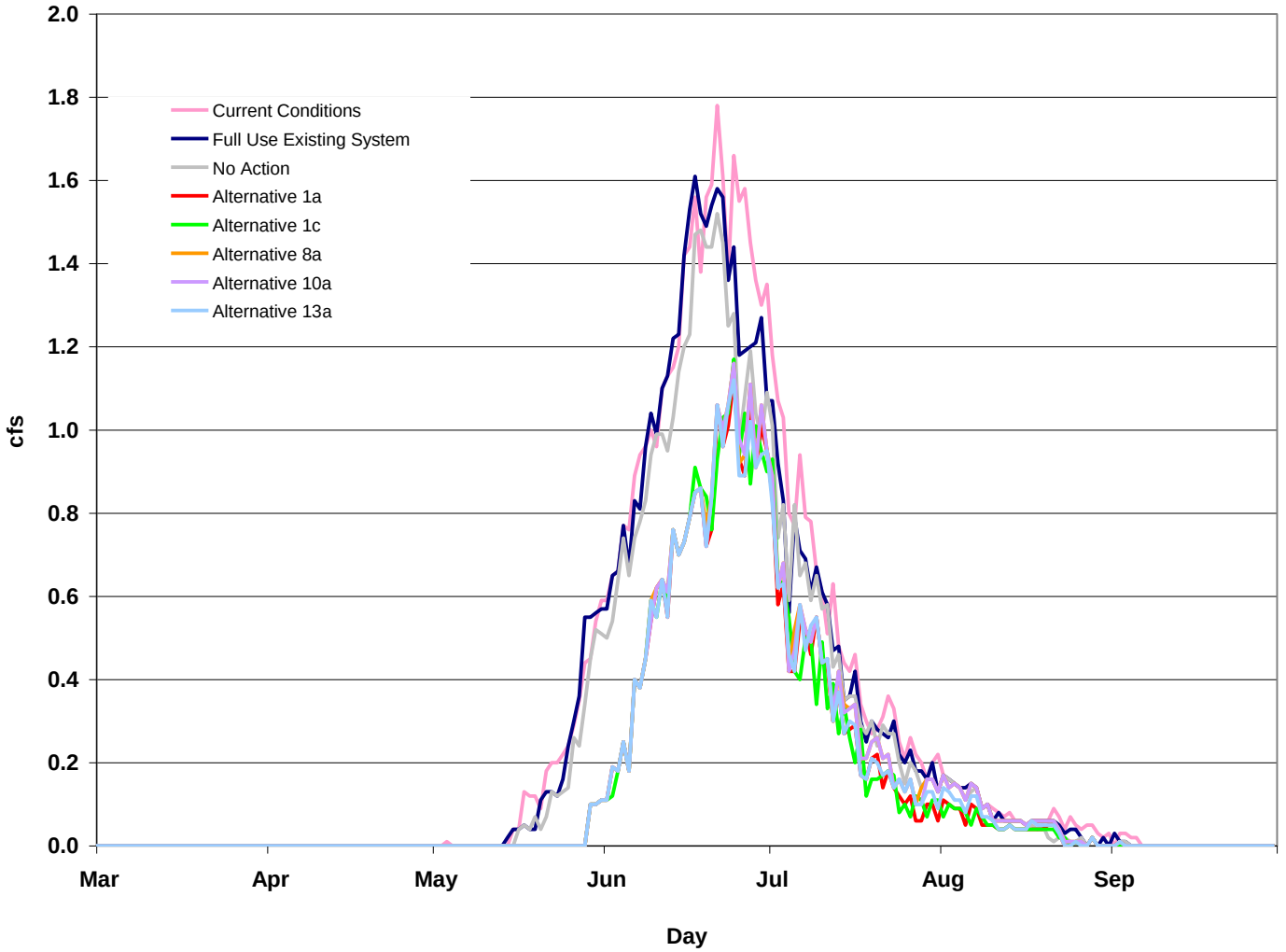


Figure H-4.47. Below Denver Water's Diversion from King Creek – Wet Year Average Daily Flow (cfs)

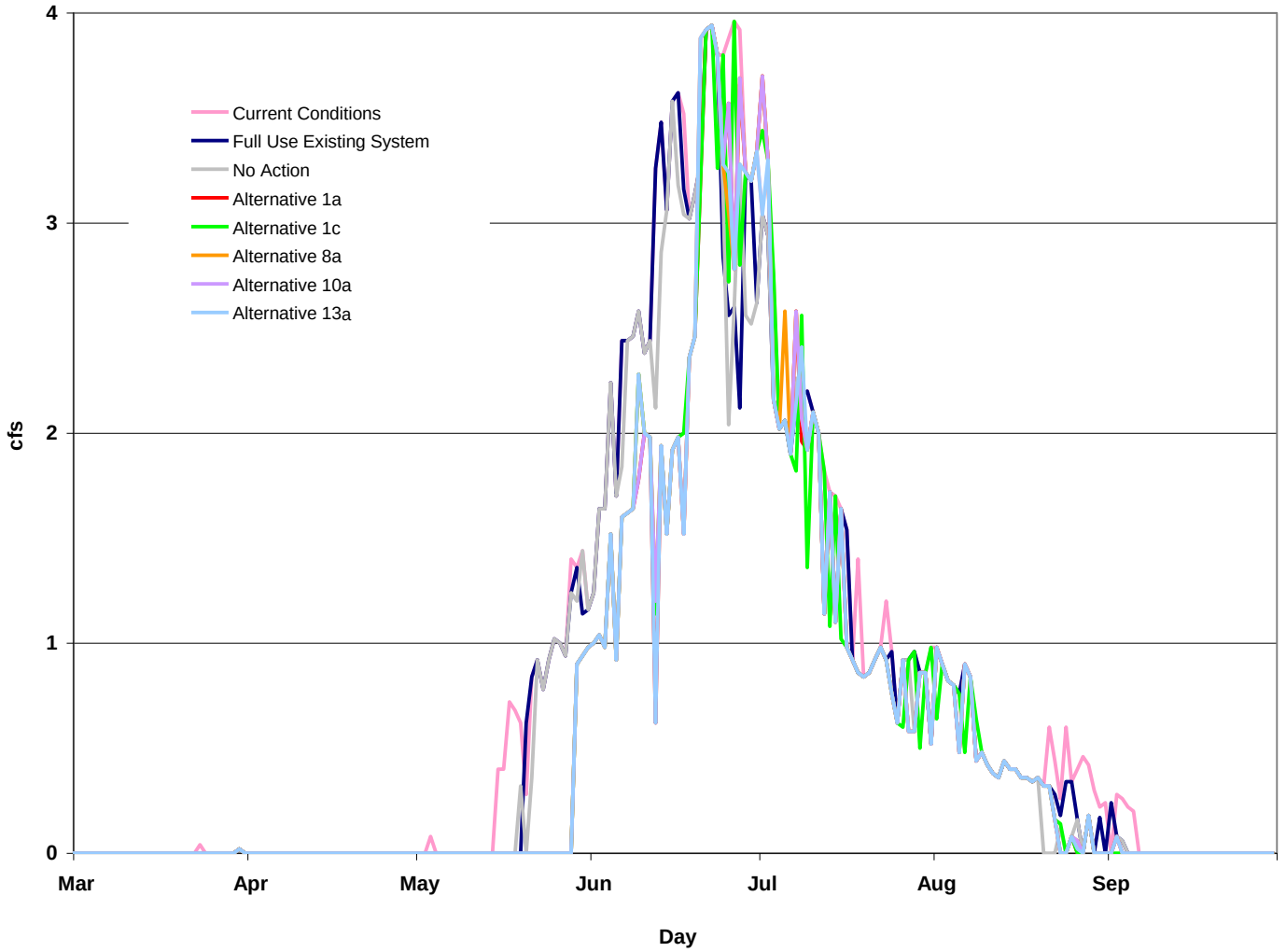


Figure H-4.48. Below Denver Water's Diversion from King Creek – Dry Year Average Daily Flow (cfs)

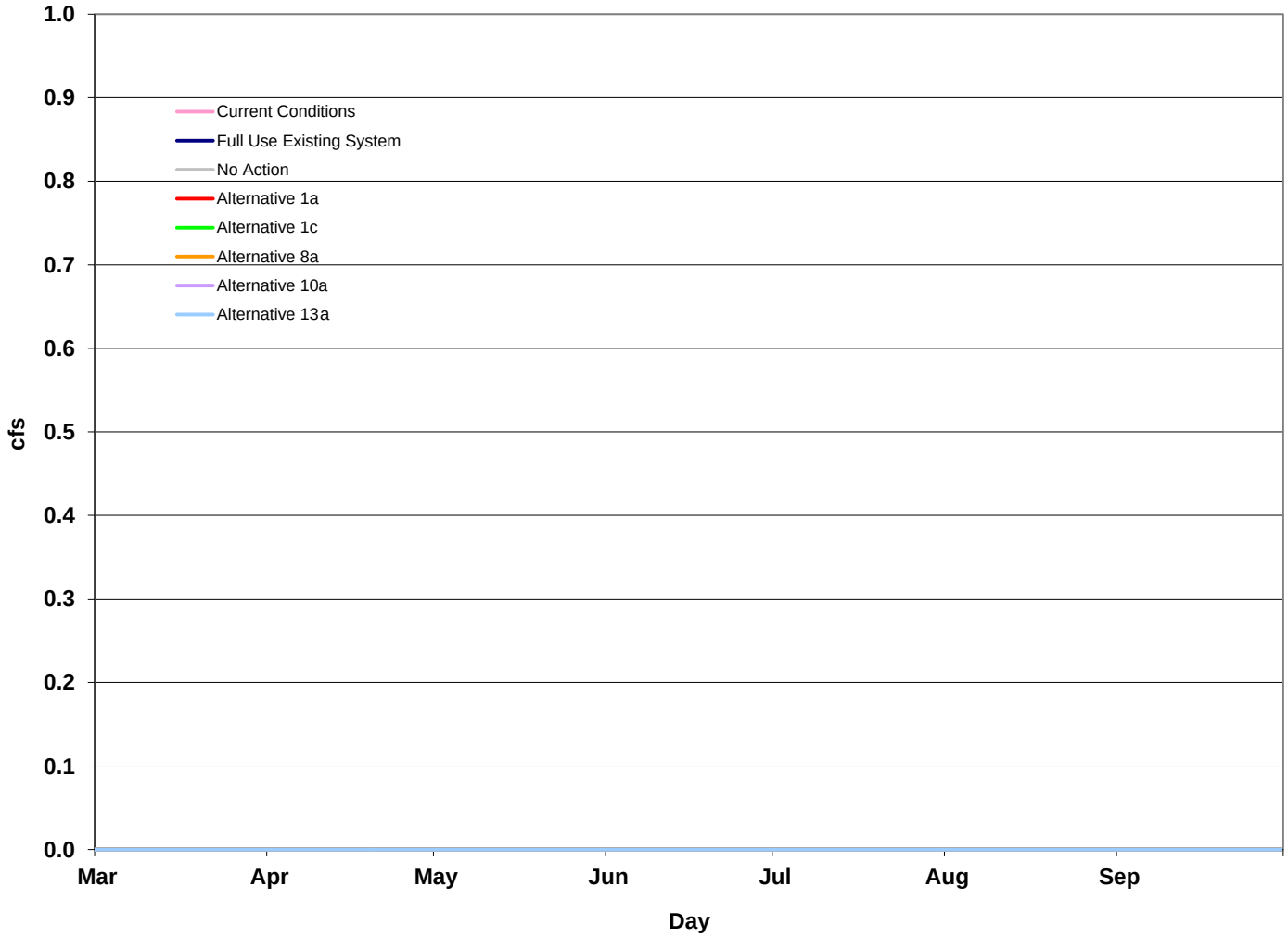


Figure H-4.49. Fraser River below St. Louis Creek – Average Daily Flow (cfs)

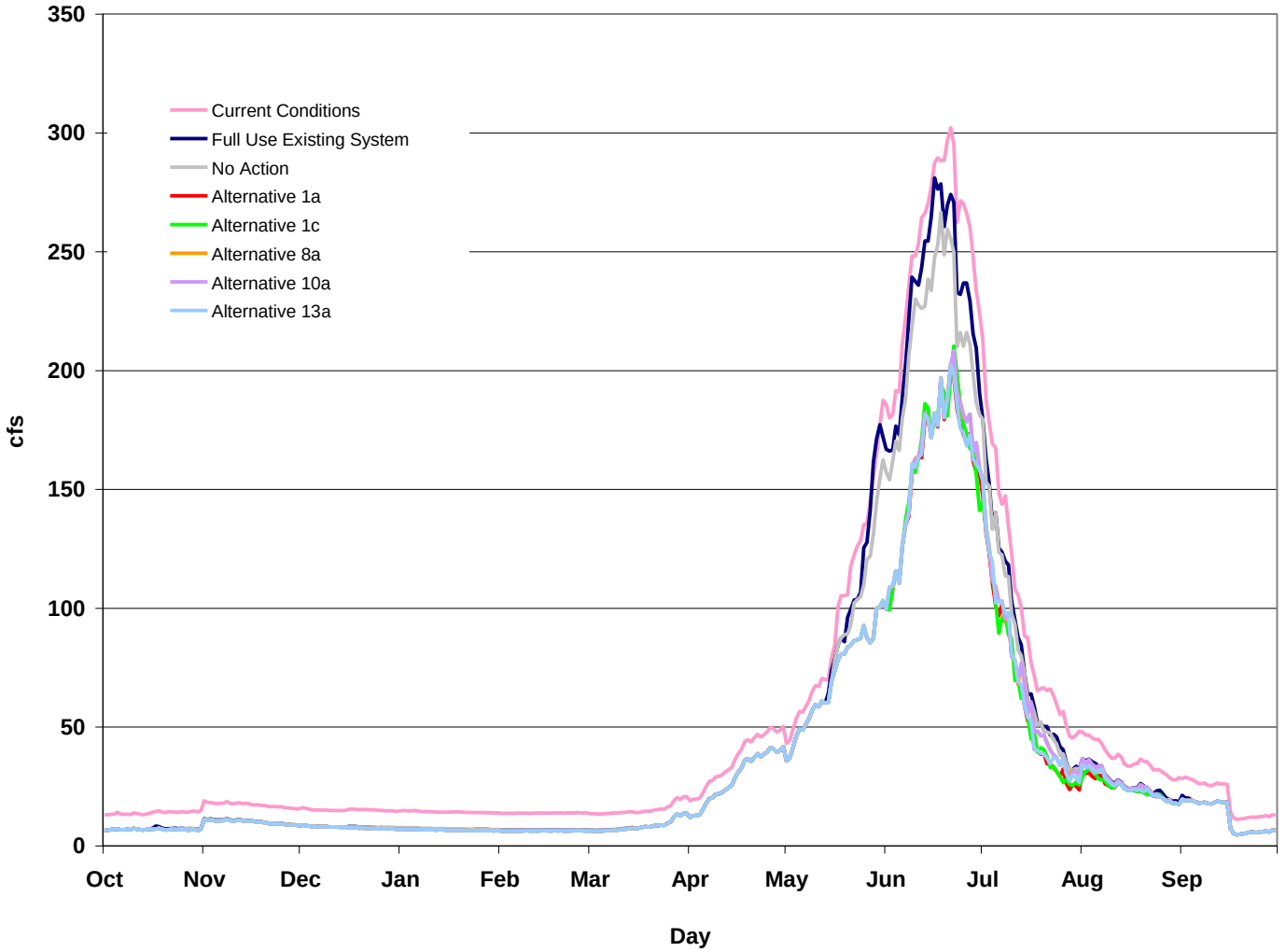


Figure H-4.50. Fraser River below St. Louis Creek – Wet Year Average Daily Flow (cfs)

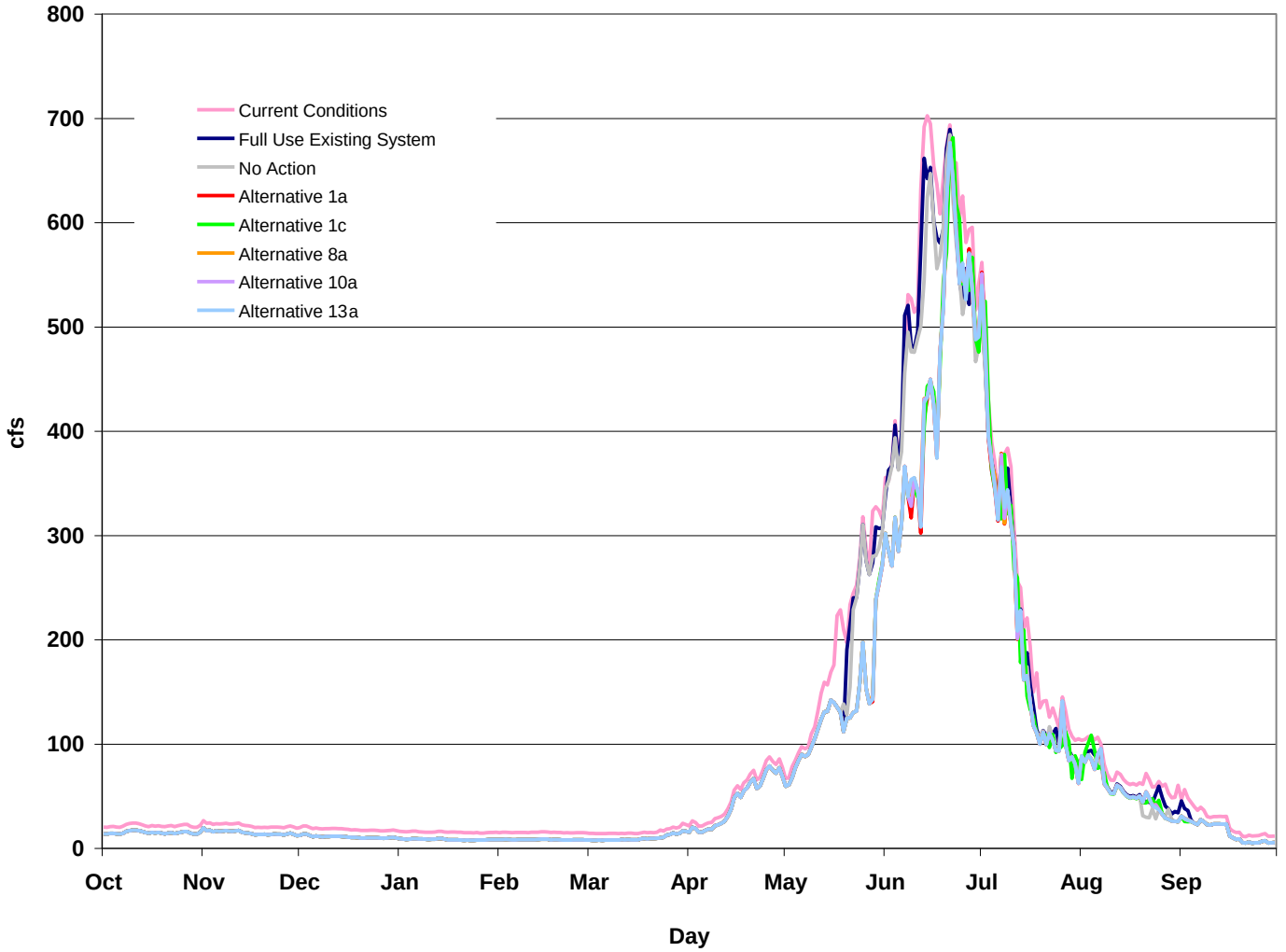


Figure H-4.51. Fraser River below St. Louis Creek – Dry Year Average Daily Flow (cfs)

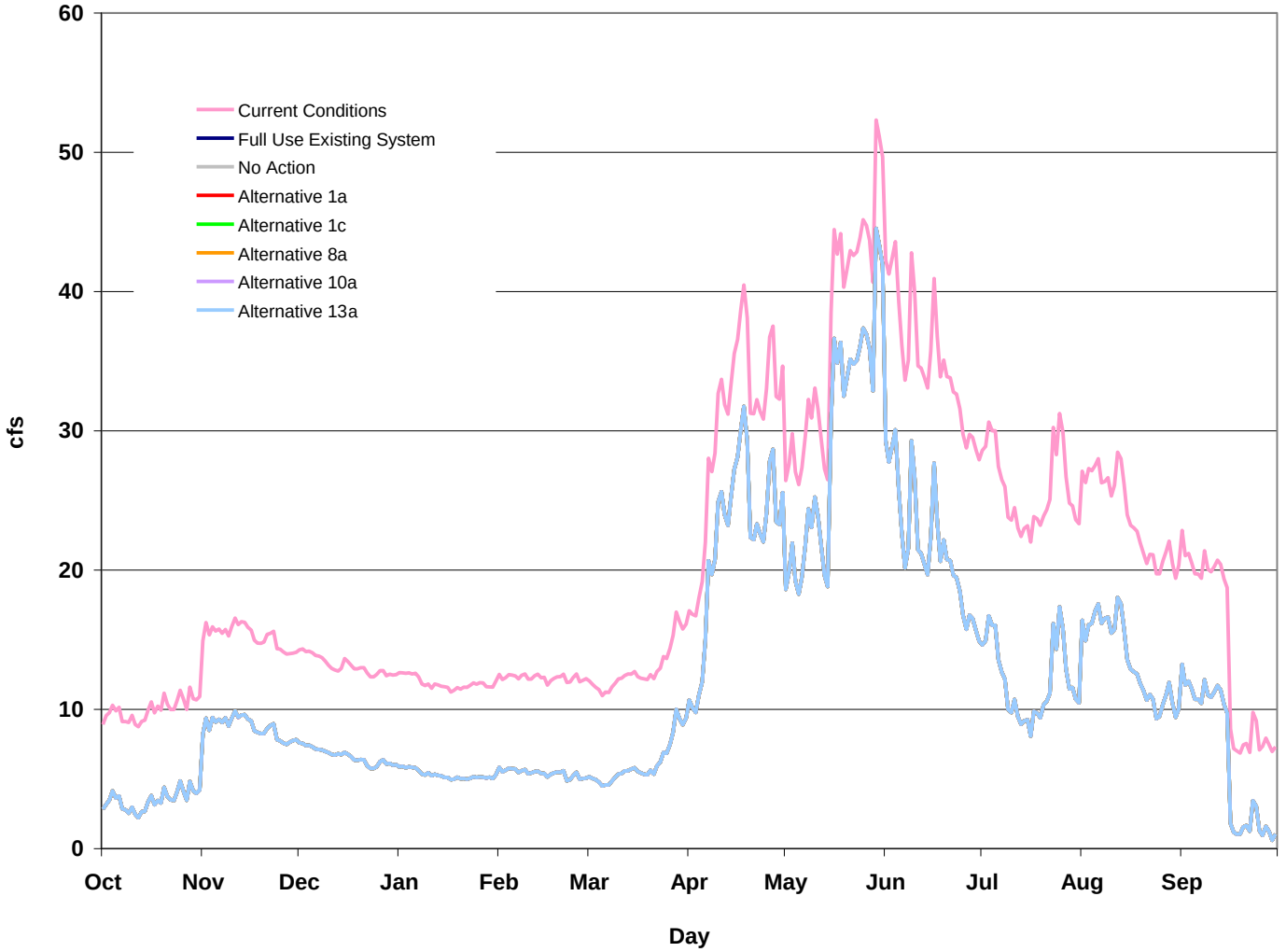


Figure H-4.52. Below Denver Water's Englewood Ranch Gravity System Diversions – Average Daily Flow (cfs)

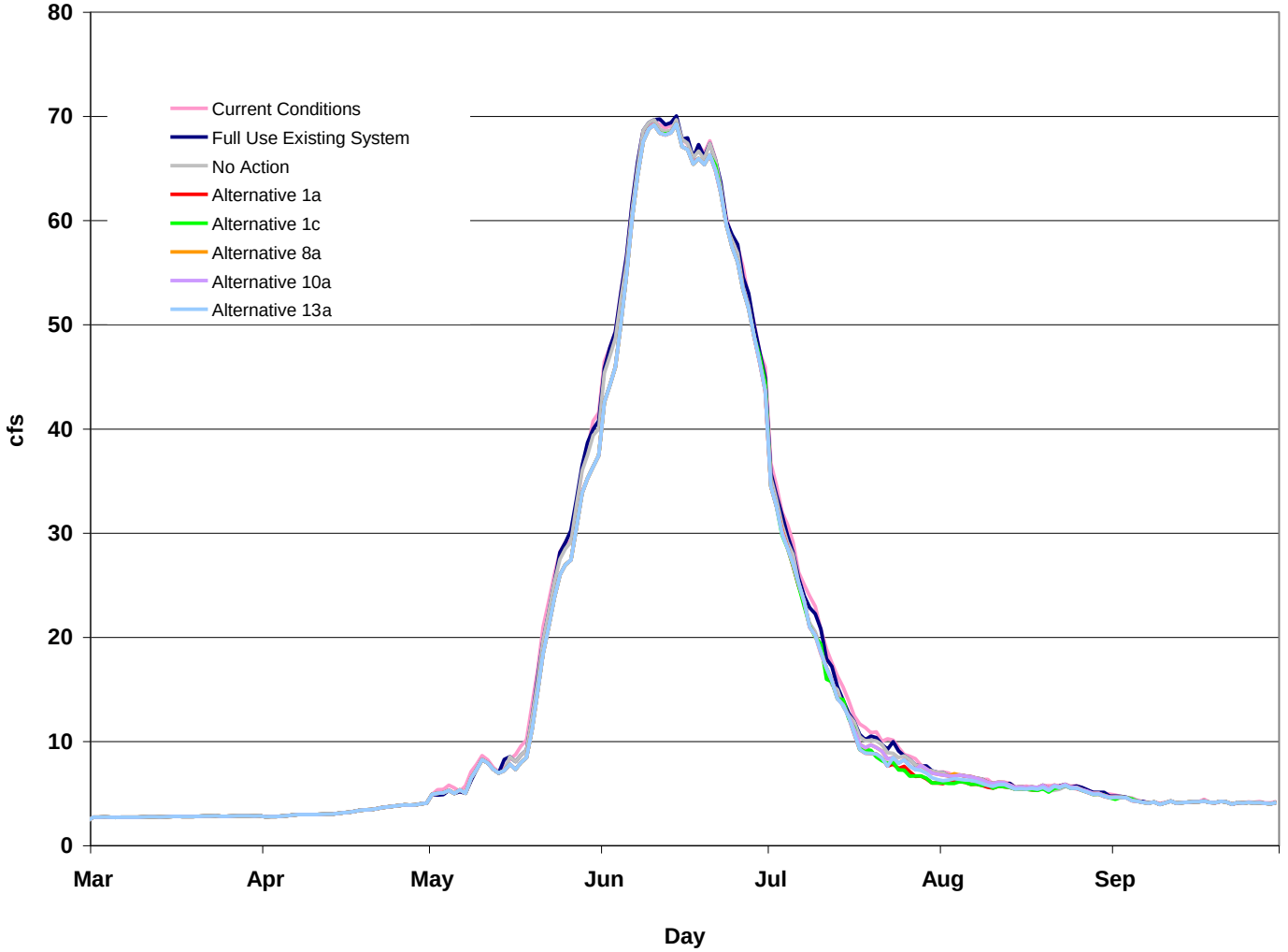


Figure H-4.53. Below Denver Water's Englewood Ranch Gravity System Diversions– Wet Year Average Daily Flow (cfs)

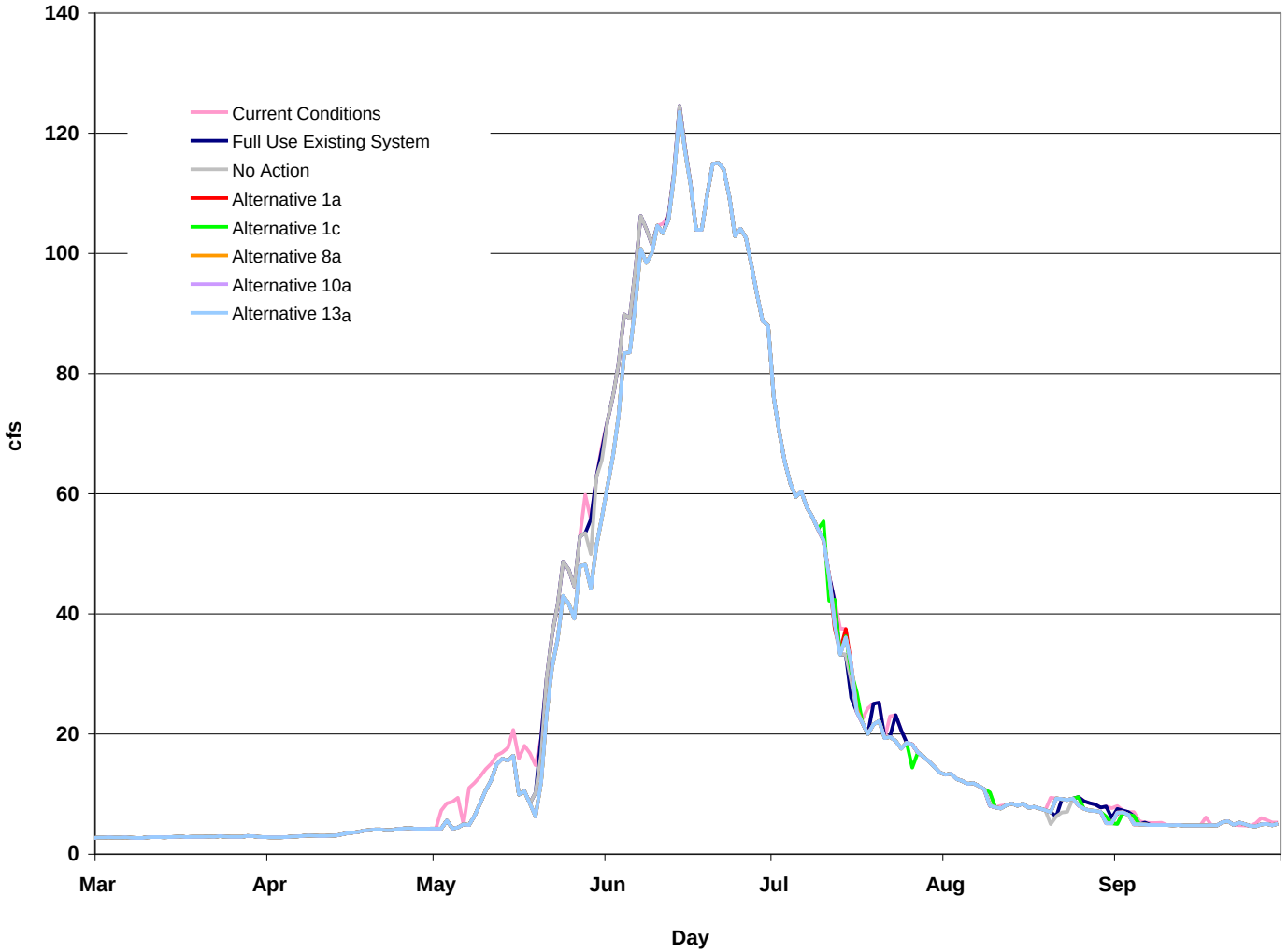


Figure H-4.54. Below Denver Water's Englewood Ranch Gravity System Diversions– Dry Year Average Daily Flow (cfs)

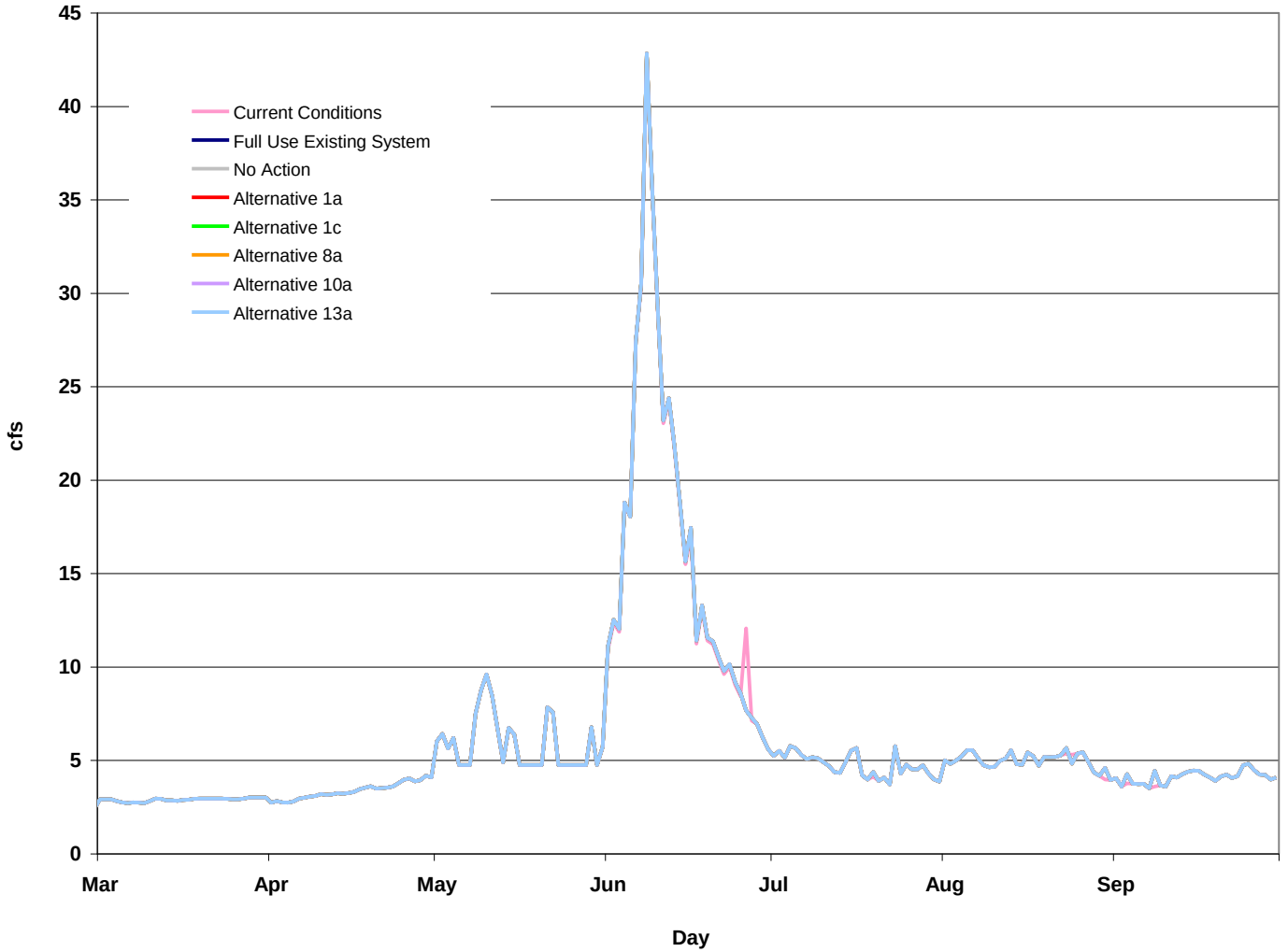


Figure H-4.55. Below Denver Water's Diversions from North Fork Ranch Creek and Dribble Creek –Average Daily Flow (cfs)

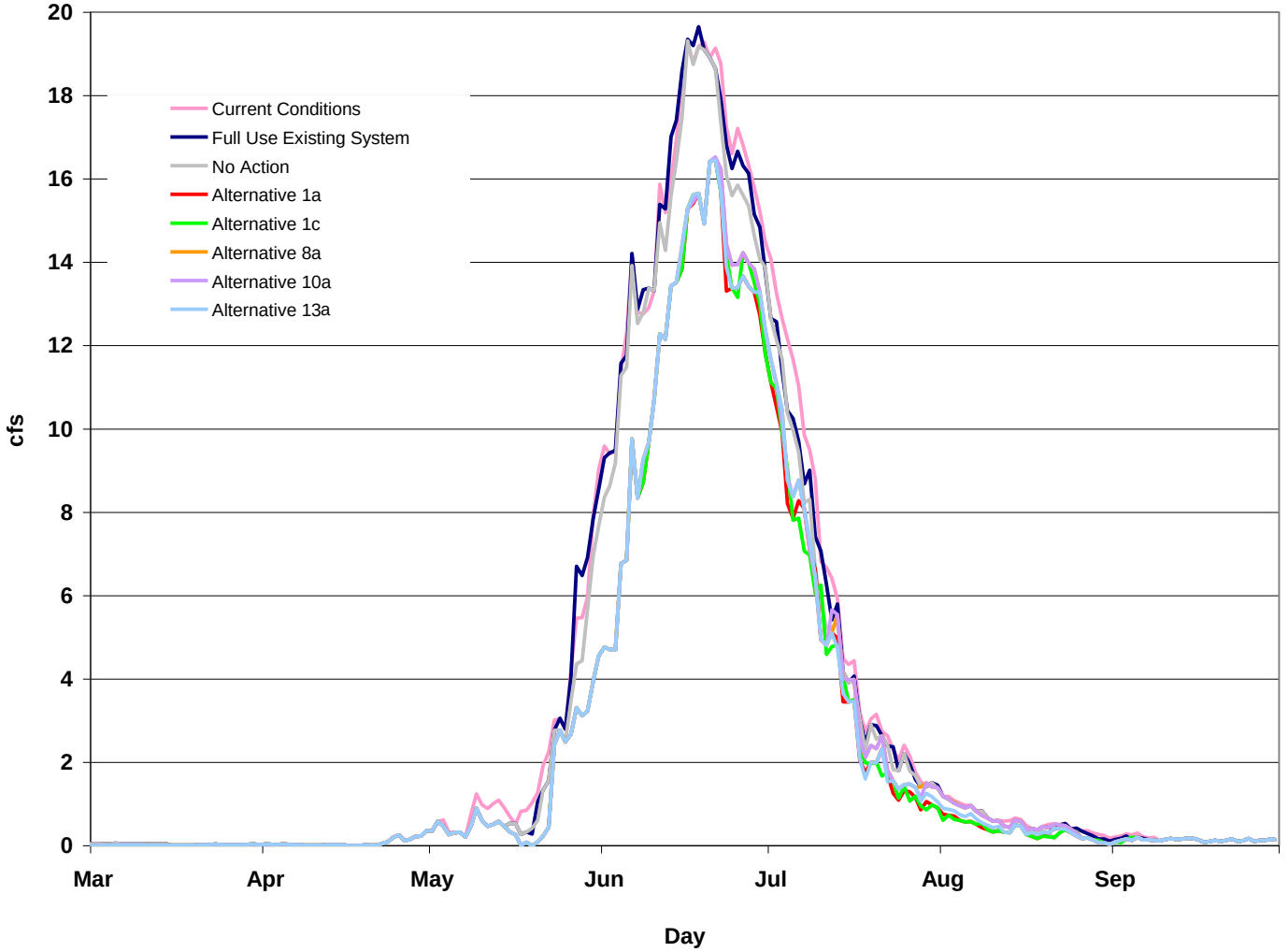


Figure H-4.56. Below Denver Water's Diversions from North Fork Ranch Creek and Dribble Creek – Wet Year Average Daily Flow (cfs)

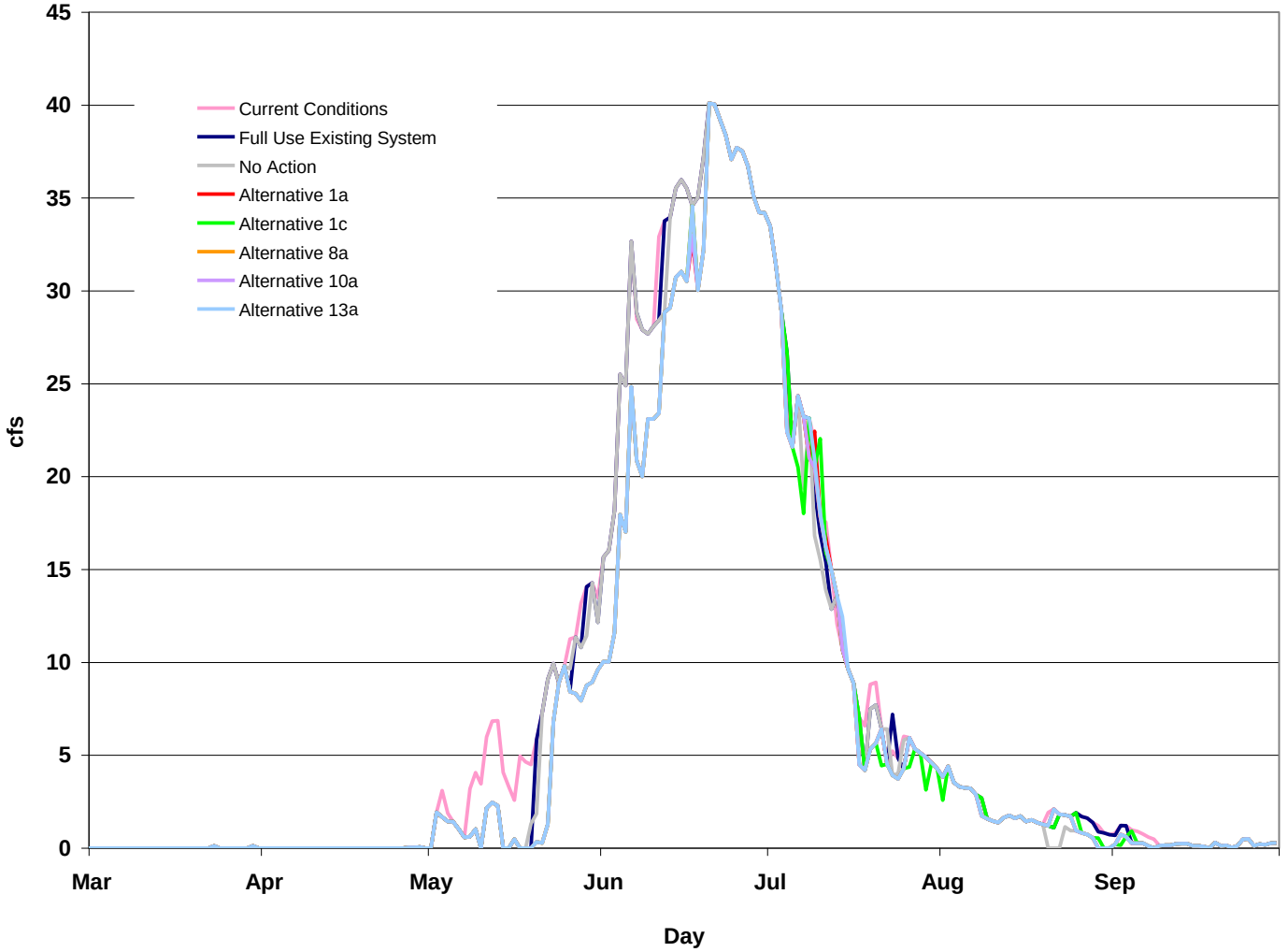


Figure H-4.57. Below Denver Water's Diversions from North Fork Ranch Creek and Dribble Creek – Dry Year Average Daily Flow (cfs)

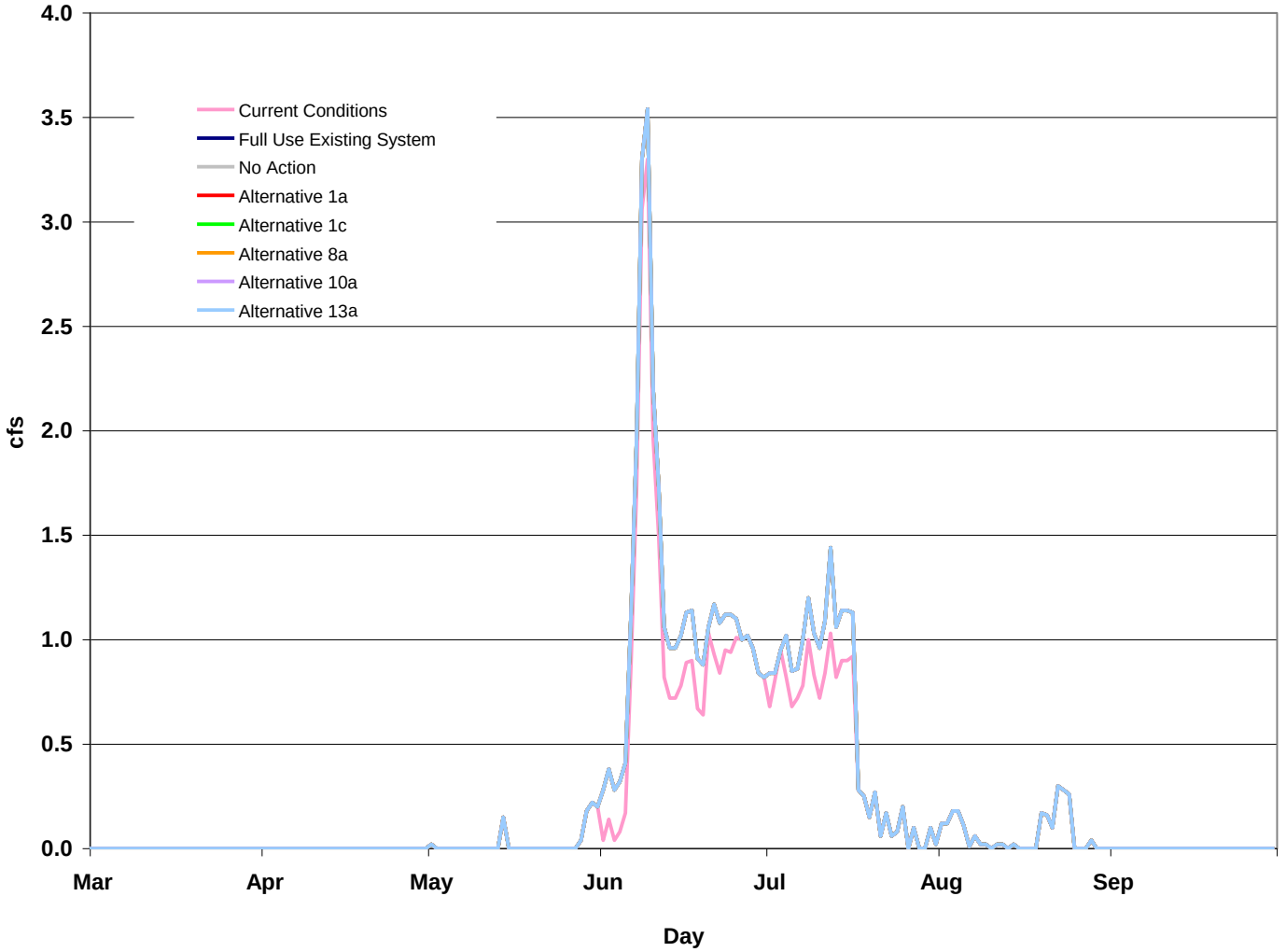


Figure H-4.58. Below Denver Water's Diversions from Main Ranch Creek – Average Daily Flow (cfs)

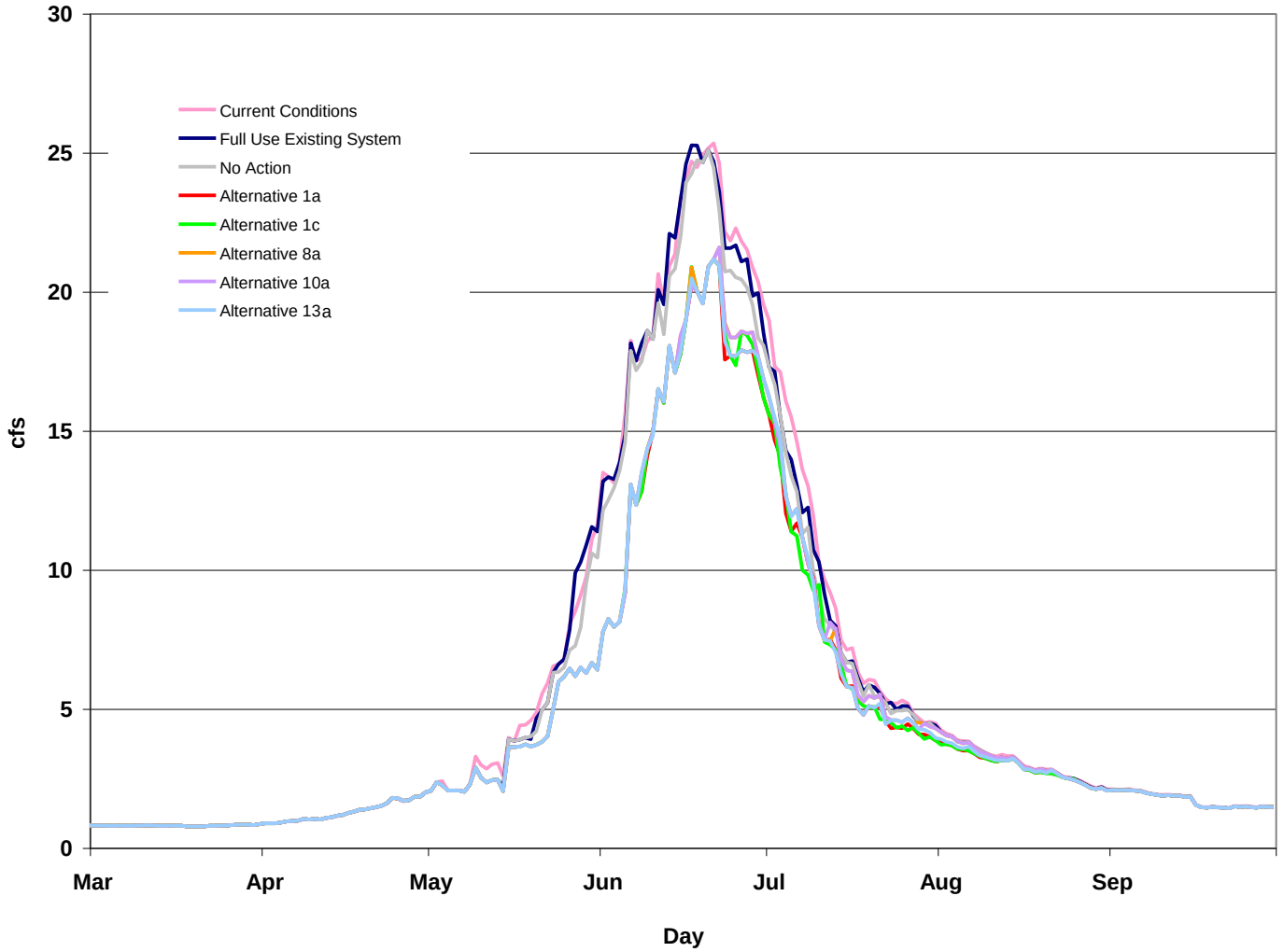


Figure H-4.59. Below Denver Water's Diversion from Main Ranch Creek – Wet Year Average Daily Flow (cfs)

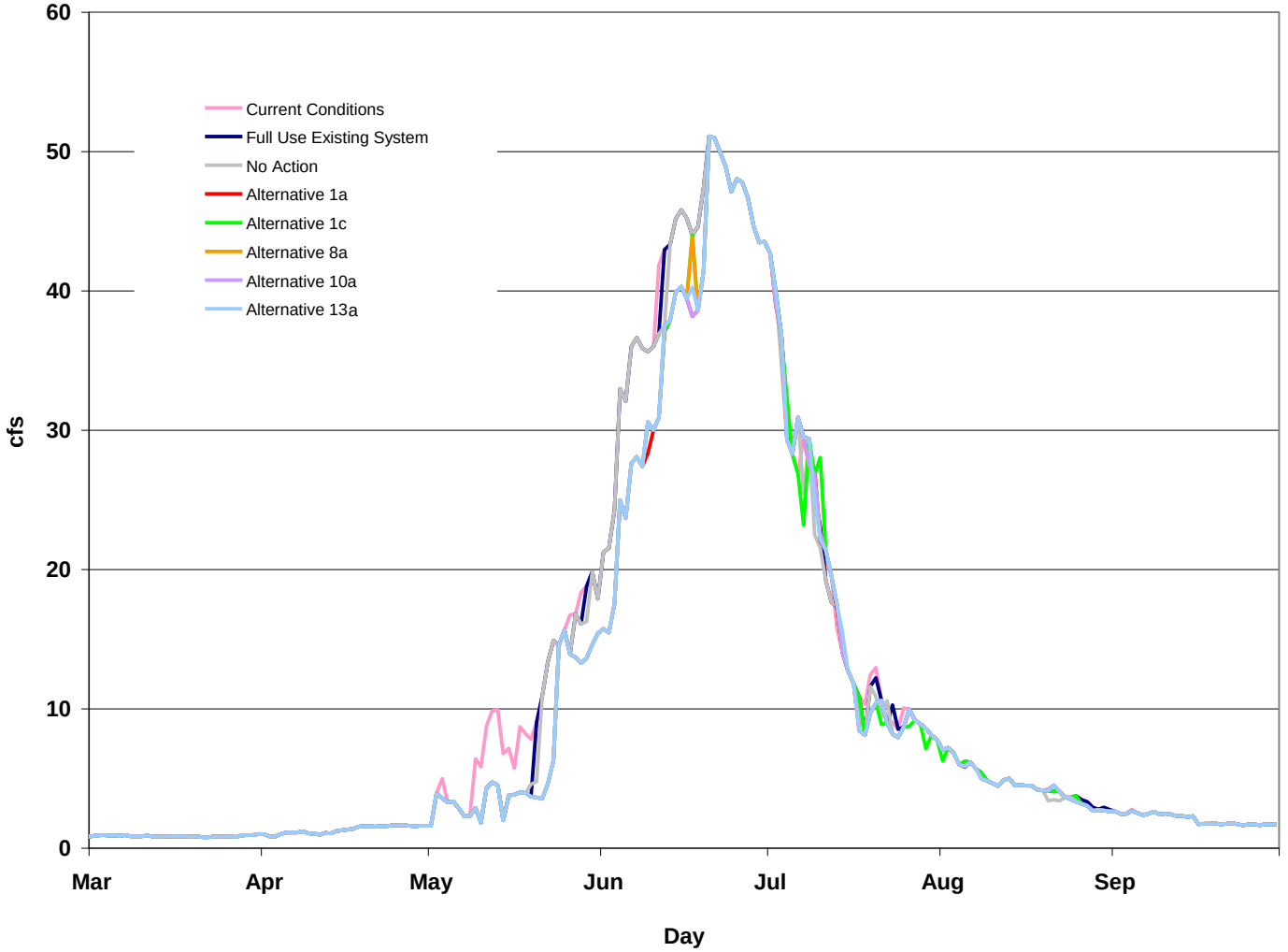


Figure H-4.60. Below Denver Water's Diversion from Main Ranch Creek – Dry Year Average Daily Flow (cfs)

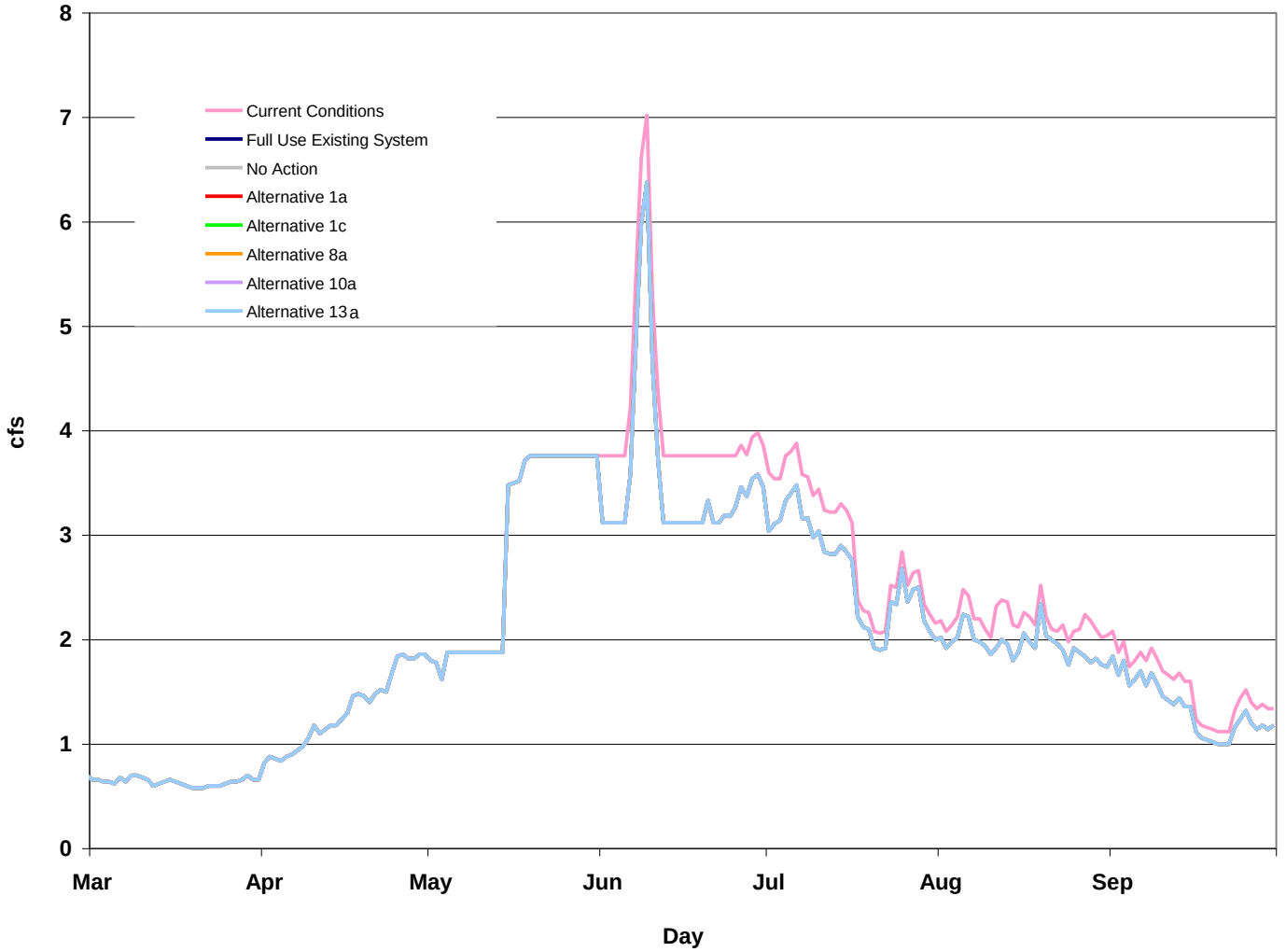


Figure H-4.61. Below Denver Water's Diversions from Middle and South Fork of Ranch Creek – Average Daily Flow (cfs)

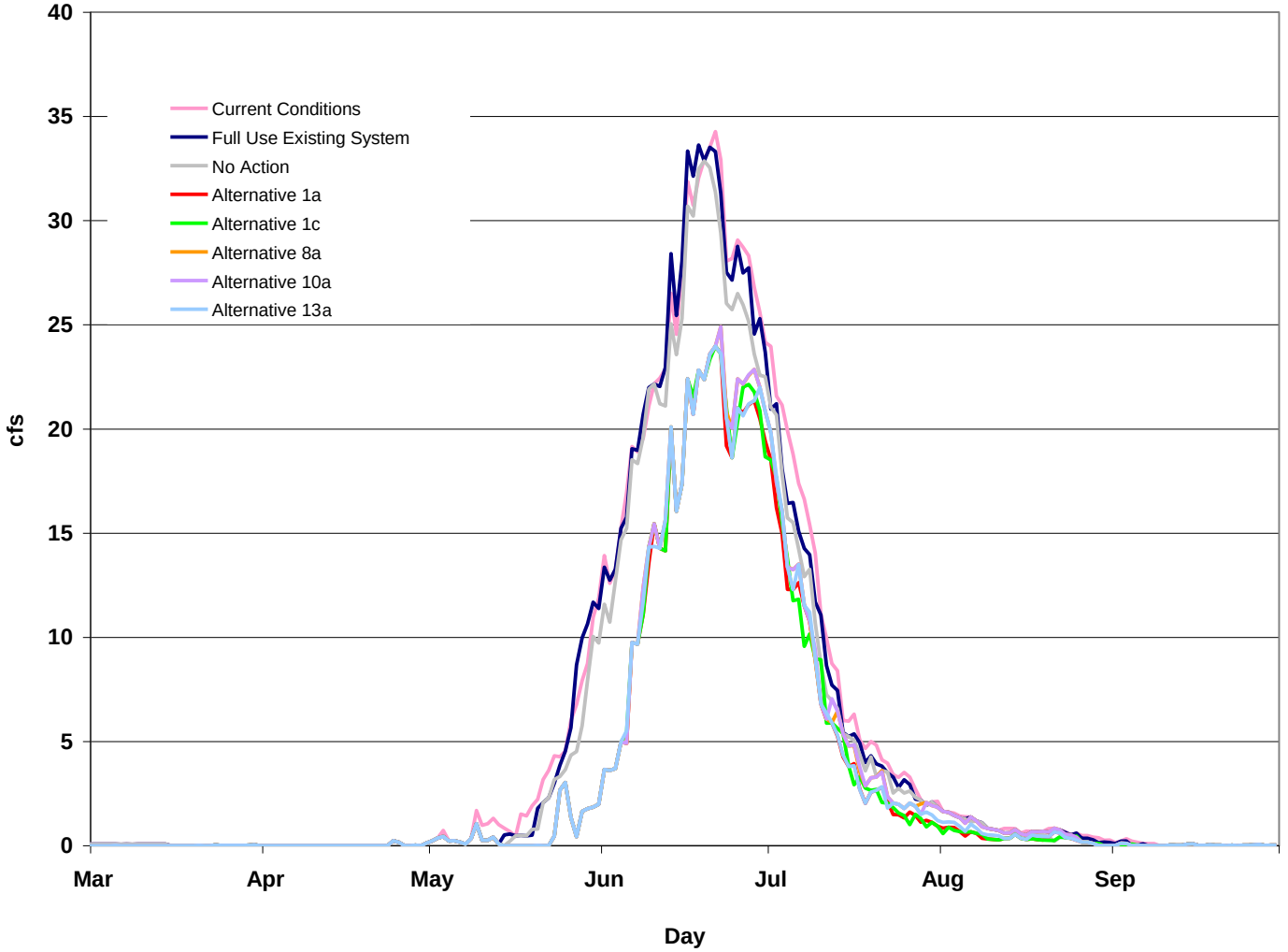


Figure H-4.62. Below Denver Water's Diversions from Middle and South Fork of Ranch Creek – Wet Year Average Daily Flow (cfs)

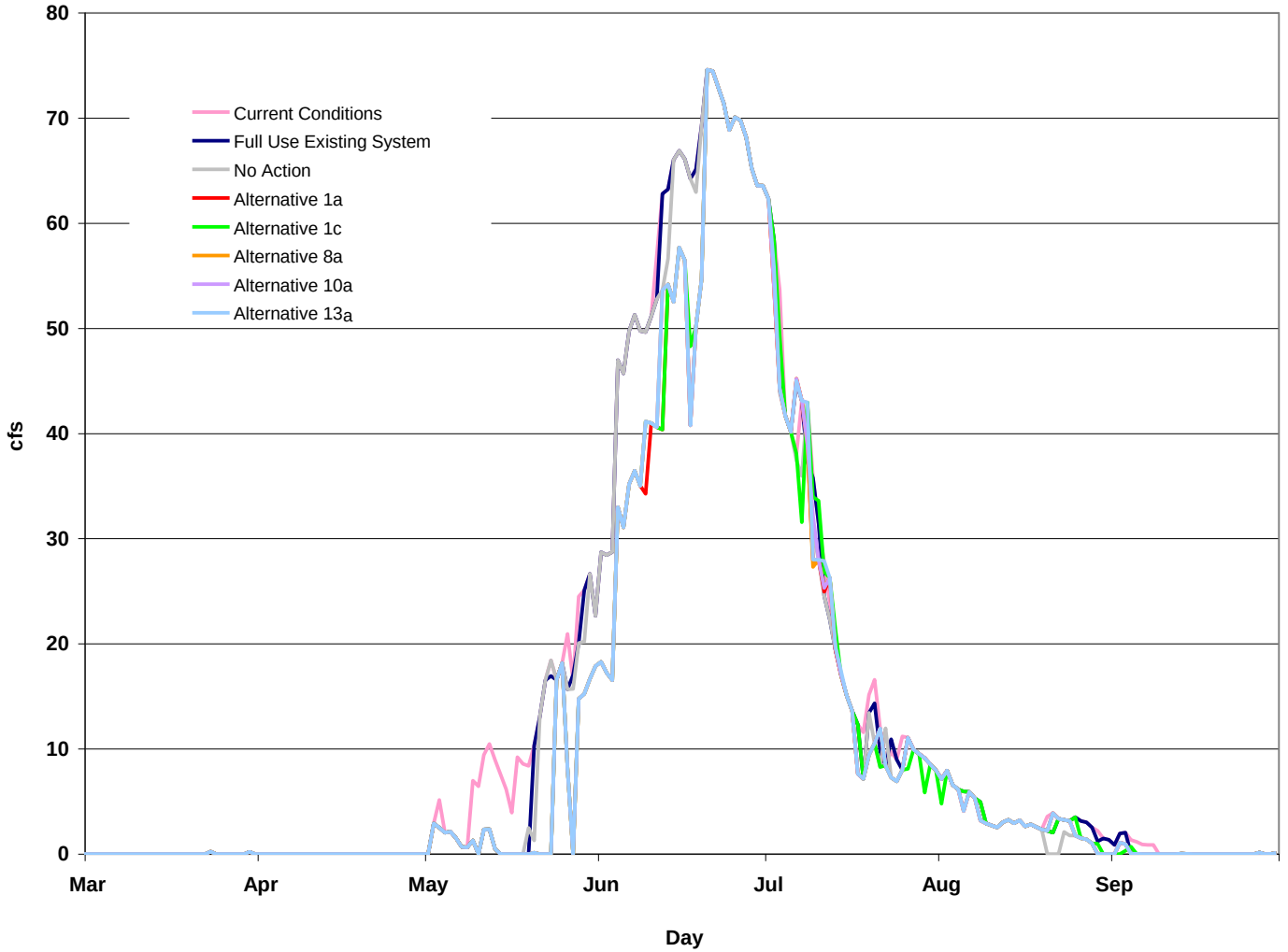


Figure H-4.63. Below Denver Water's Diversions from Middle and South Fork of Ranch Creek – Dry Year Average Daily Flow (cfs)

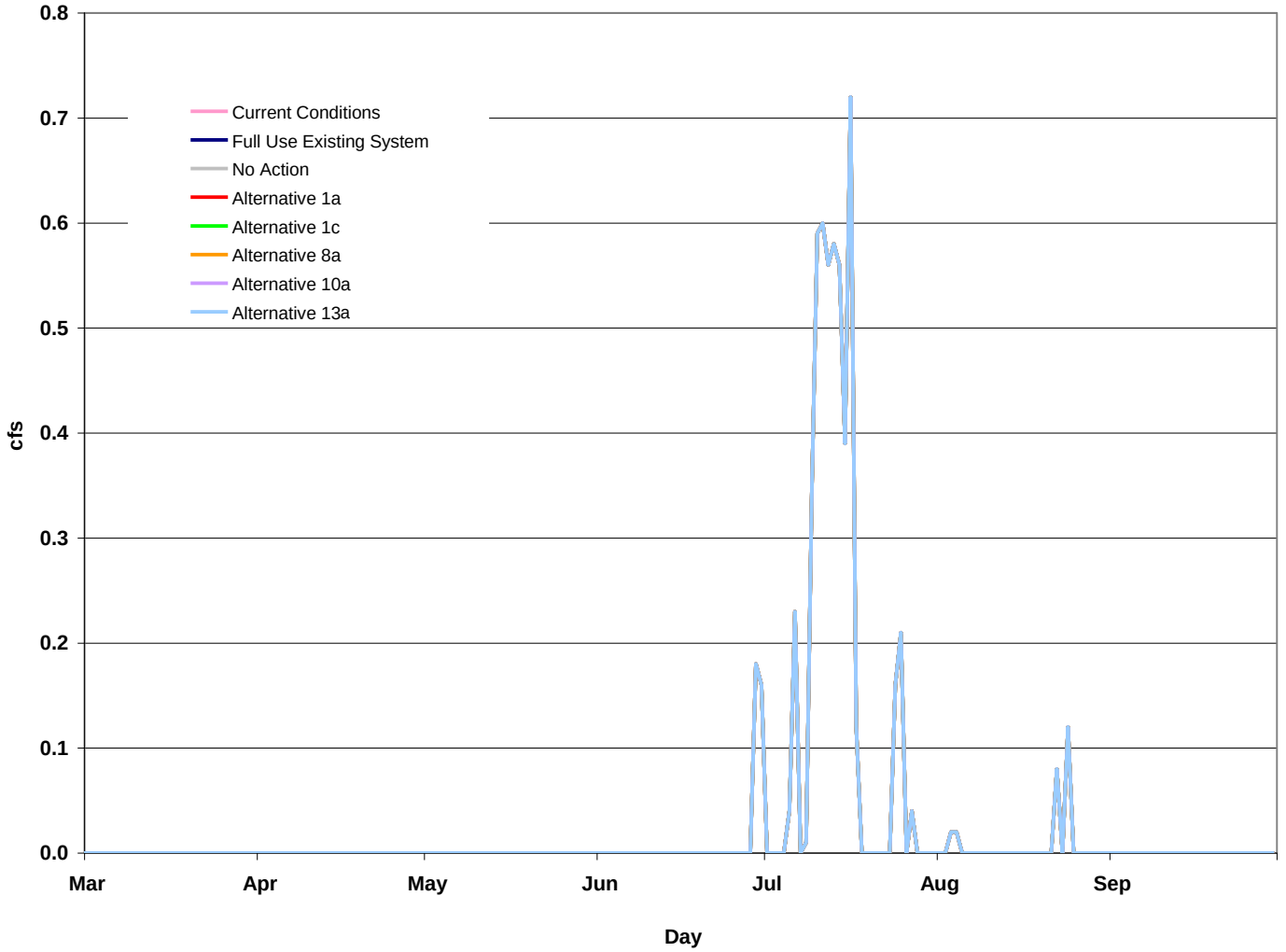


Figure H-4.64. Fraser River below Crooked Creek – Average Daily Flow (cfs)

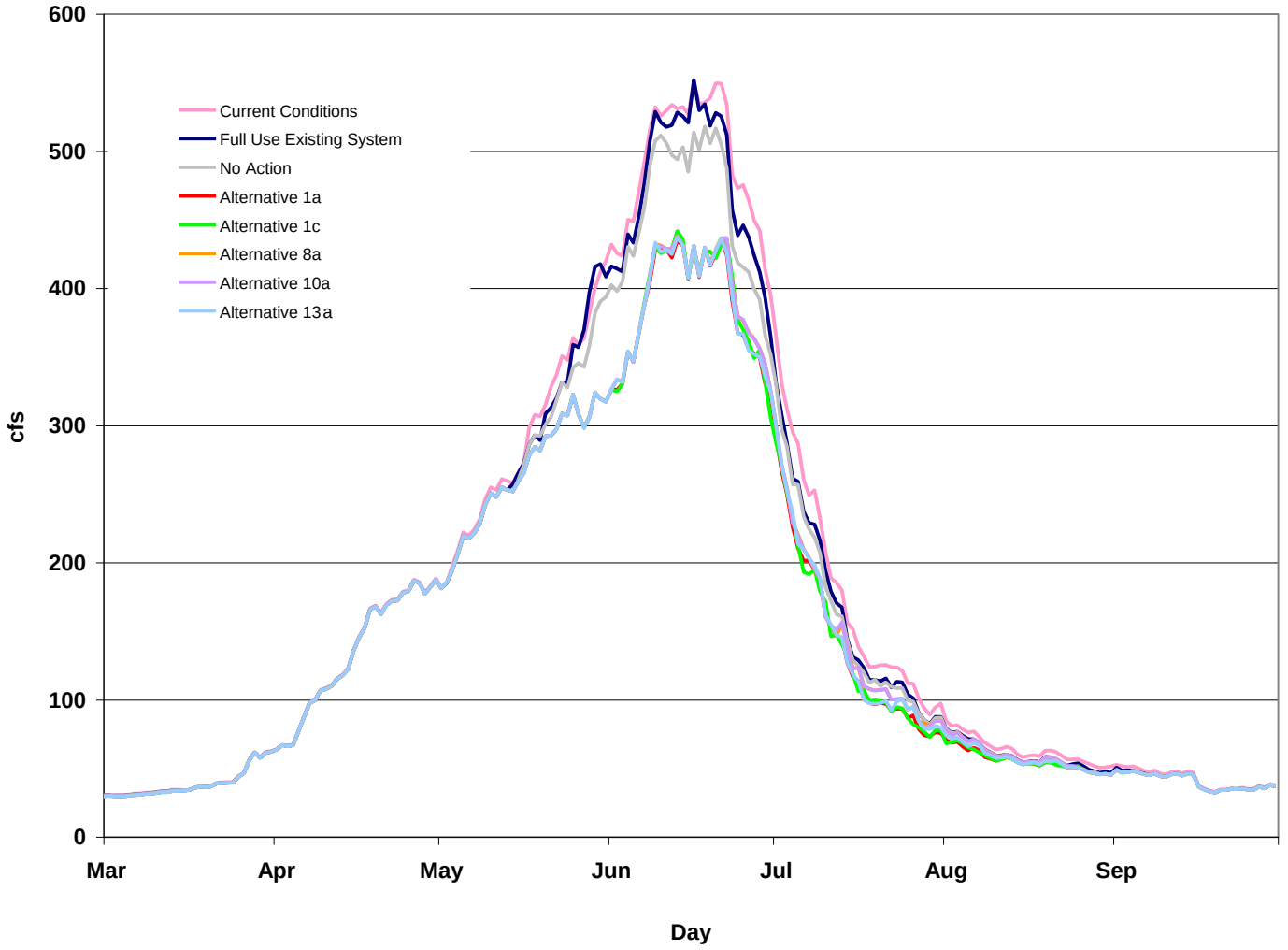


Figure H-4.65. Fraser River below Crooked Creek – Wet Year Average Daily Flow (cfs)

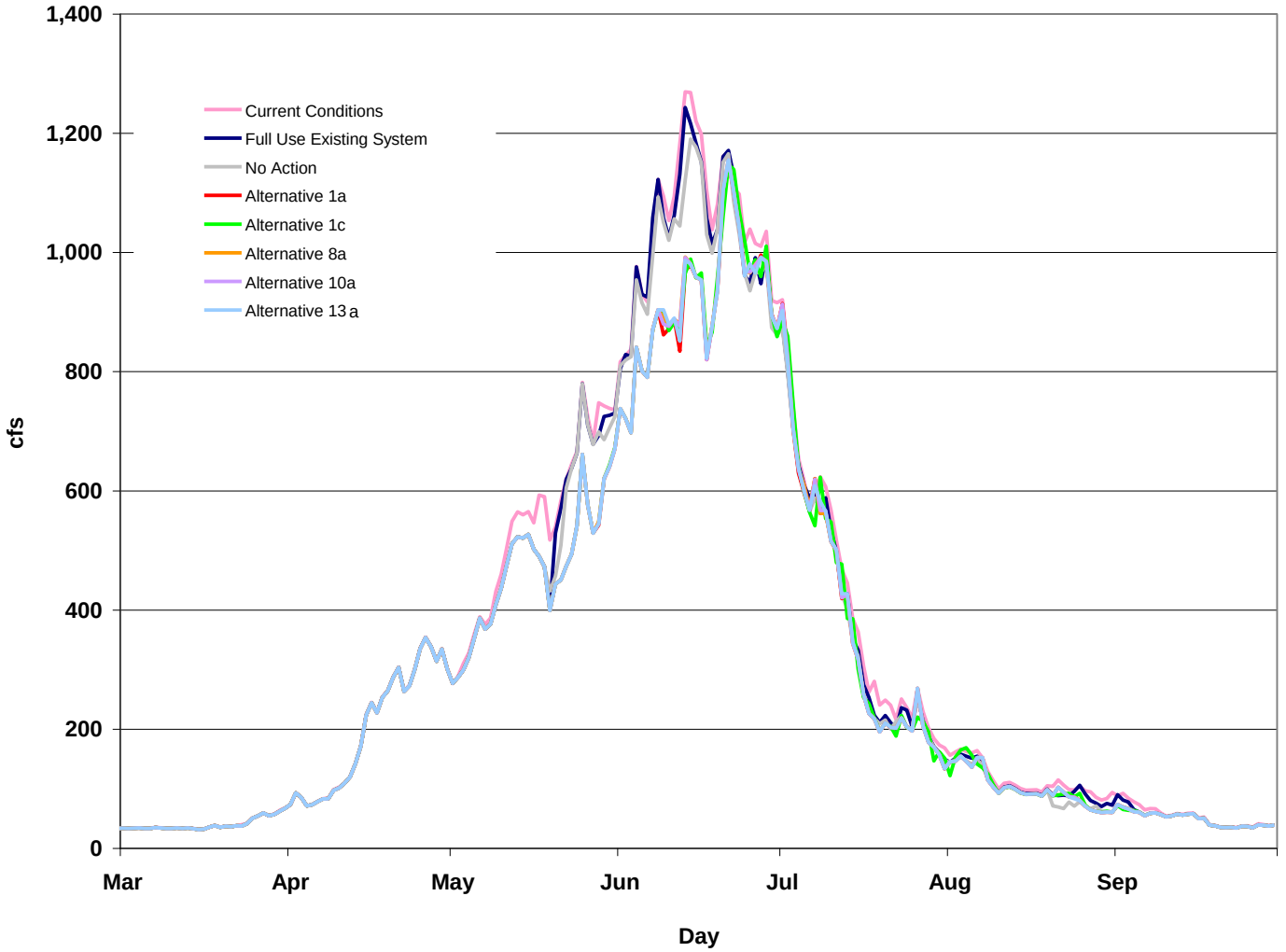


Figure H-4.66. Fraser River below Crooked Creek – Dry Year Average Daily Flow (cfs)

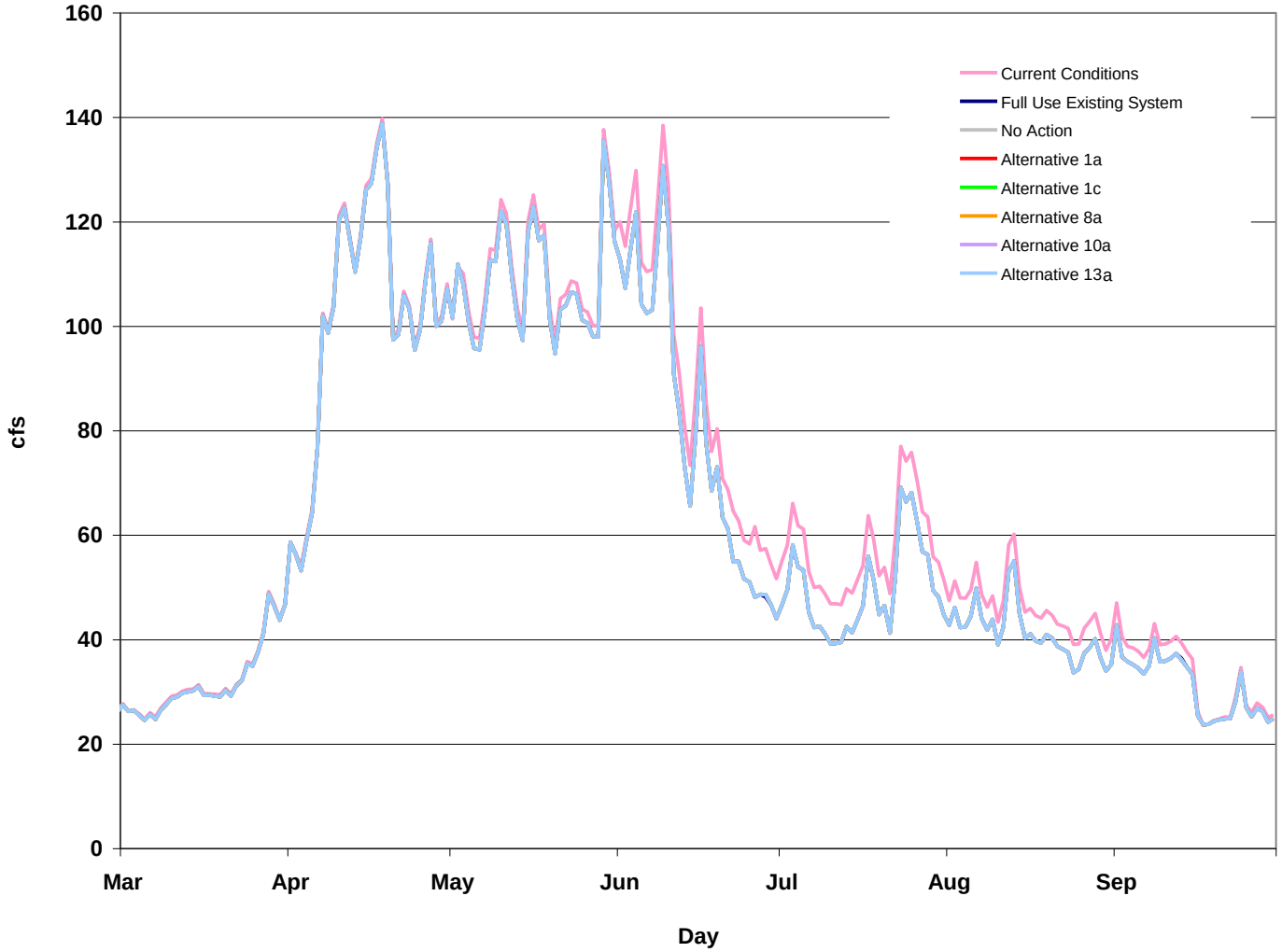


Figure H-4.67. Fraser River at Granby Gage – Average Daily Flow (cfs)

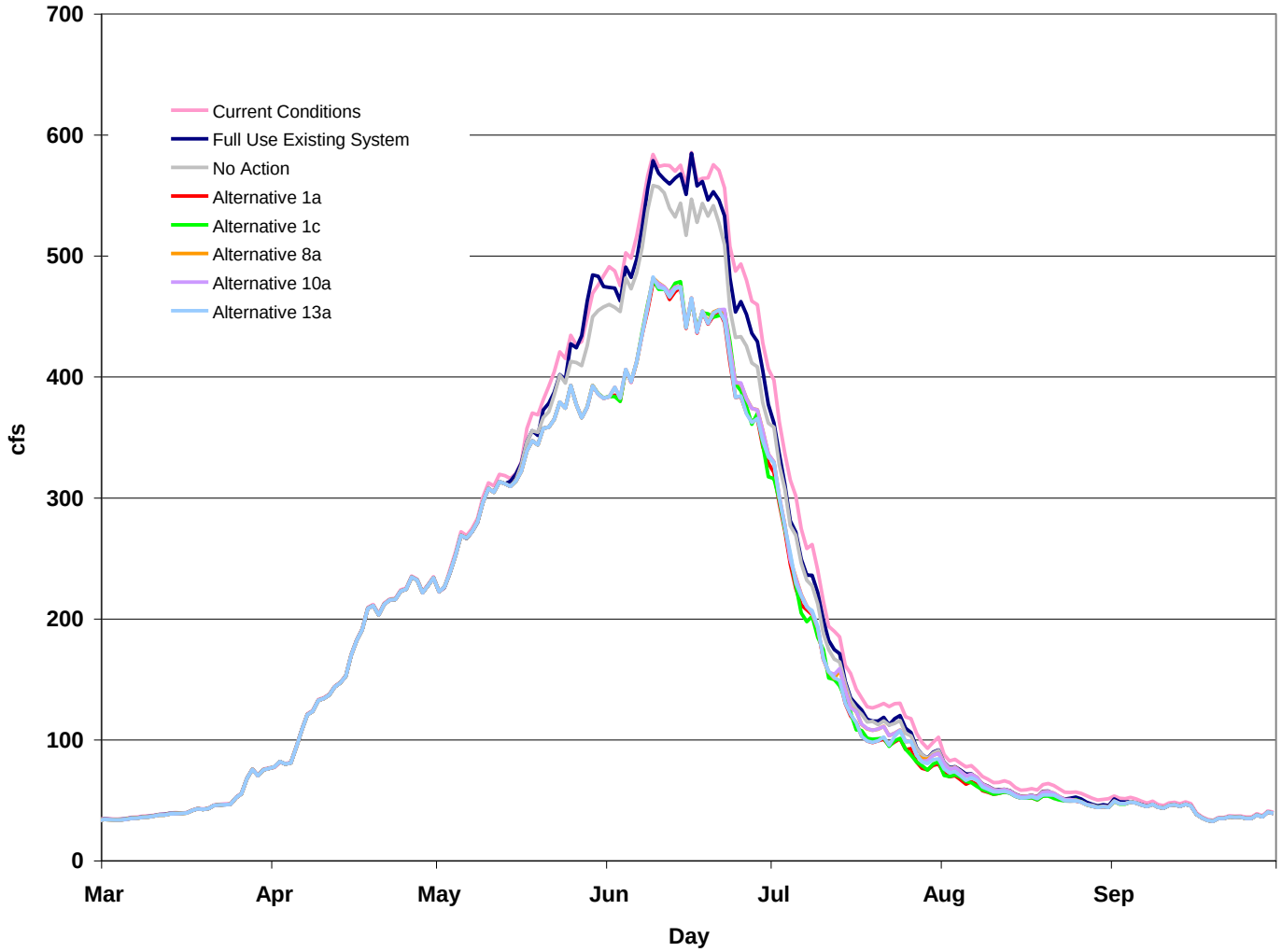


Figure H-4.68. Fraser River at Granby Gage – Wet Year Average Daily Flow (cfs)

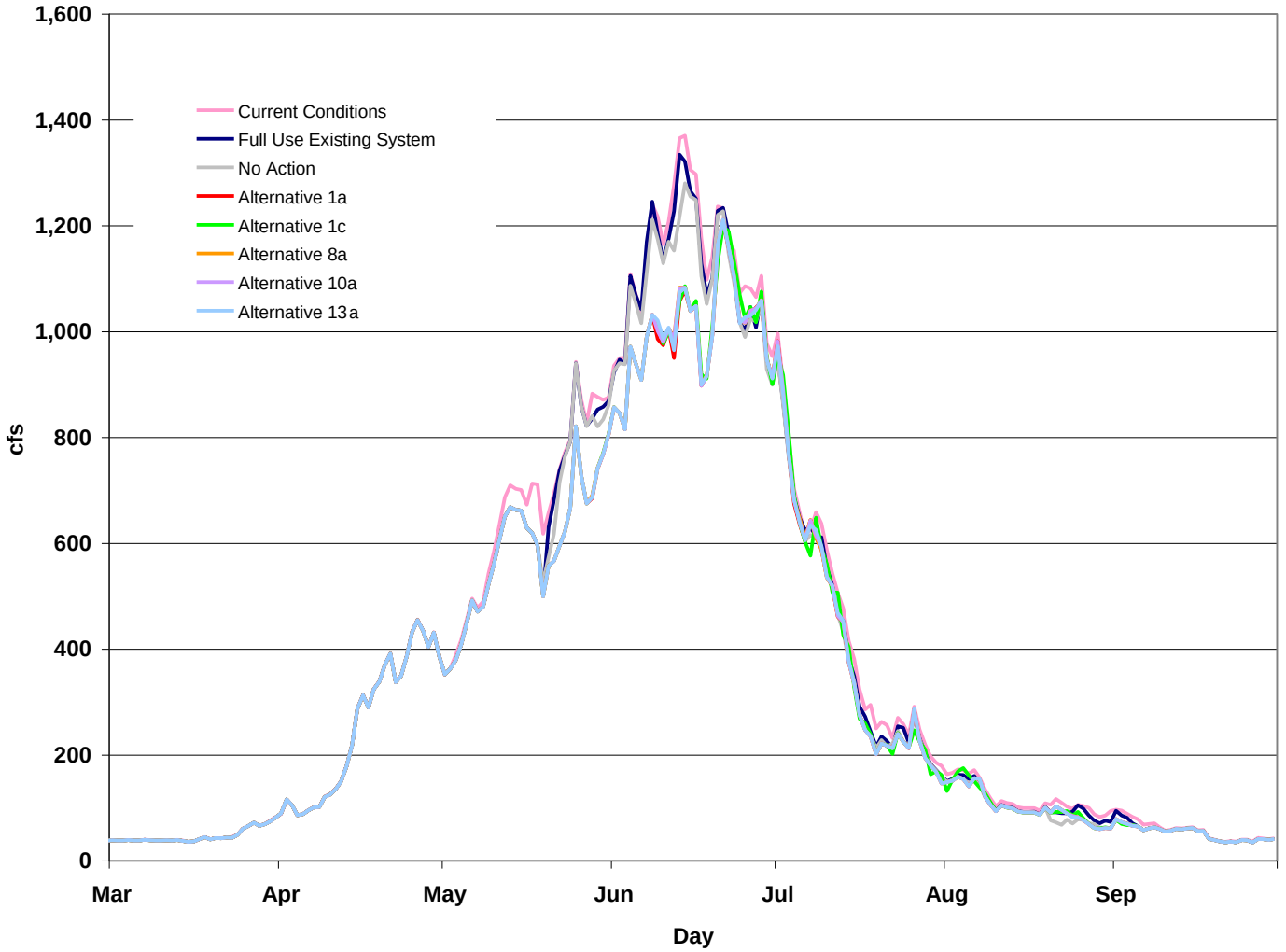


Figure H-4.69. Fraser River at Granby Gage – Dry Year Average Daily Flow (cfs)

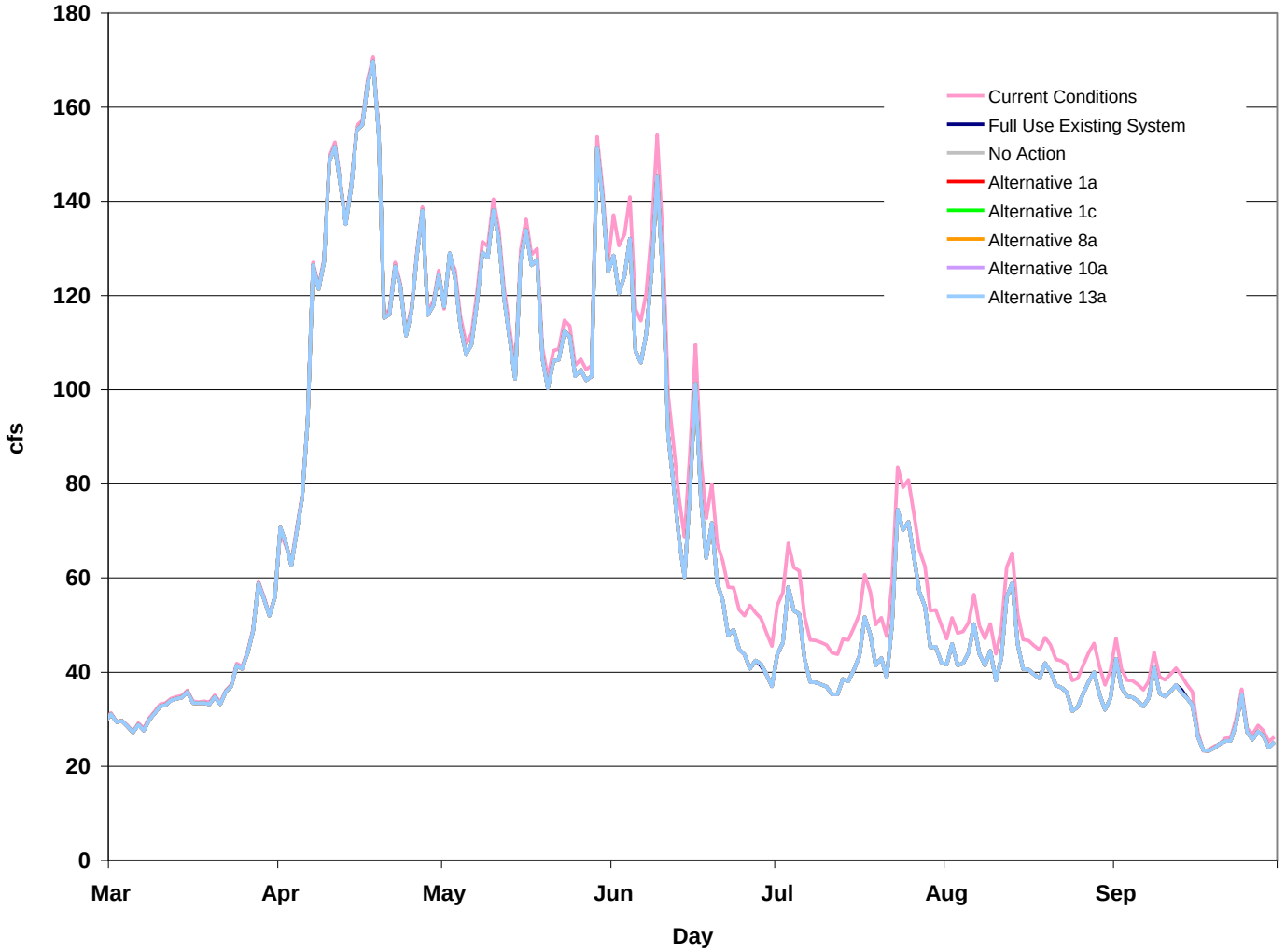


Figure H-4.70. Gumlick Tunnel – Average Daily Diversion (cfs)

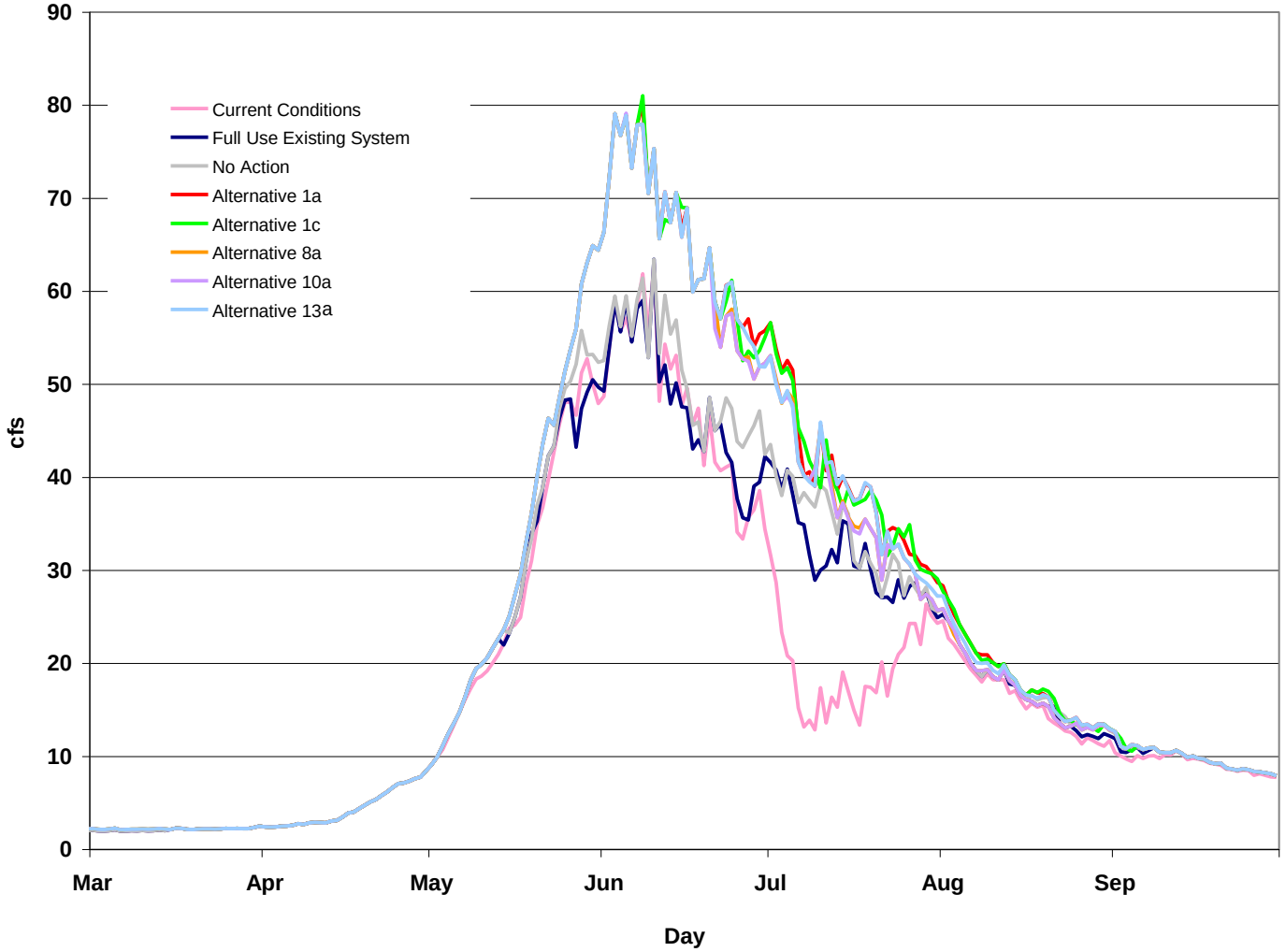


Figure H-4.71. Gumlick Tunnel – Wet Year Average Daily Diversion (cfs)

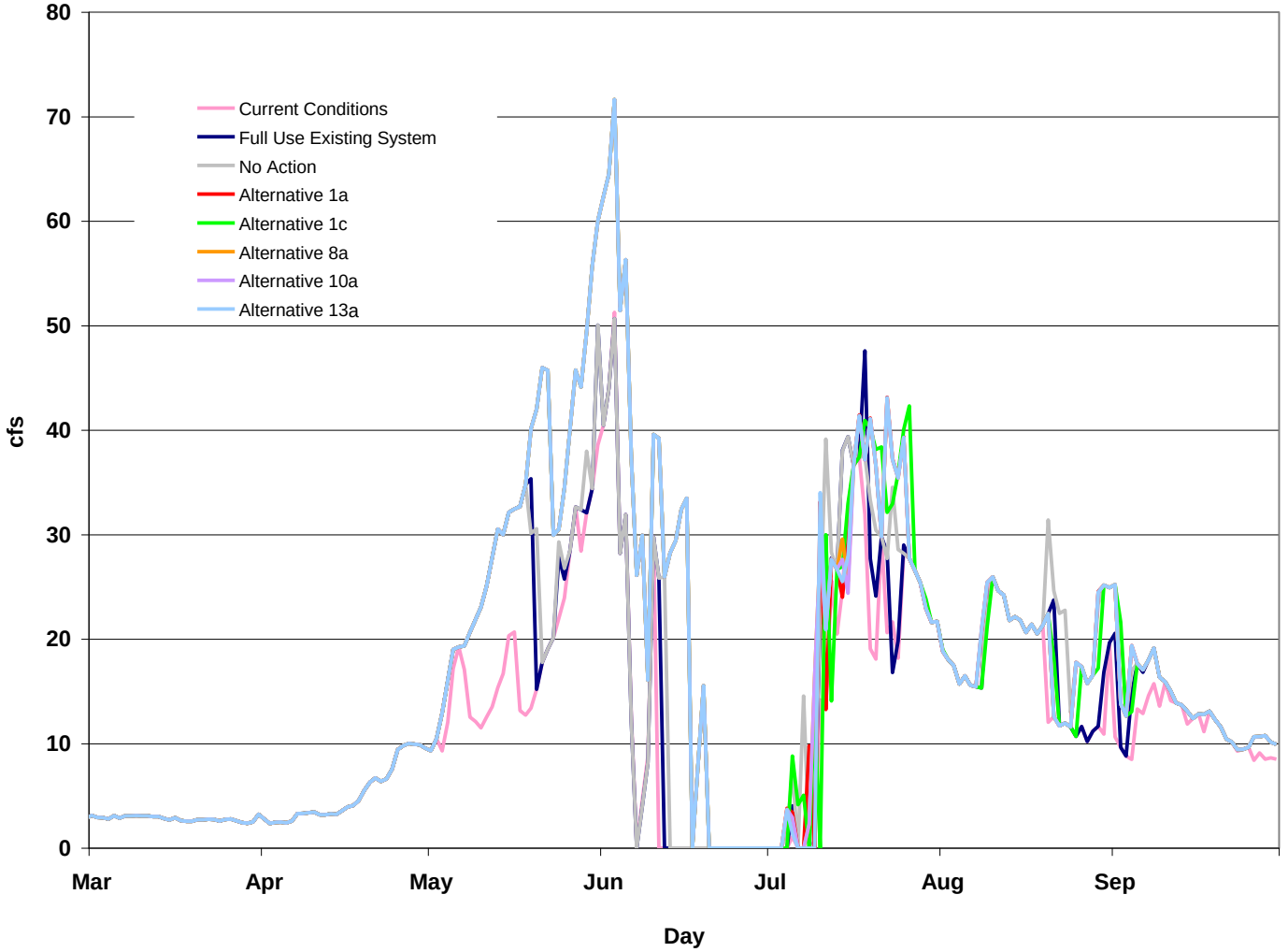


Figure H-4.72. Gumlick Tunnel – Dry Year Average Daily Diversion (cfs)

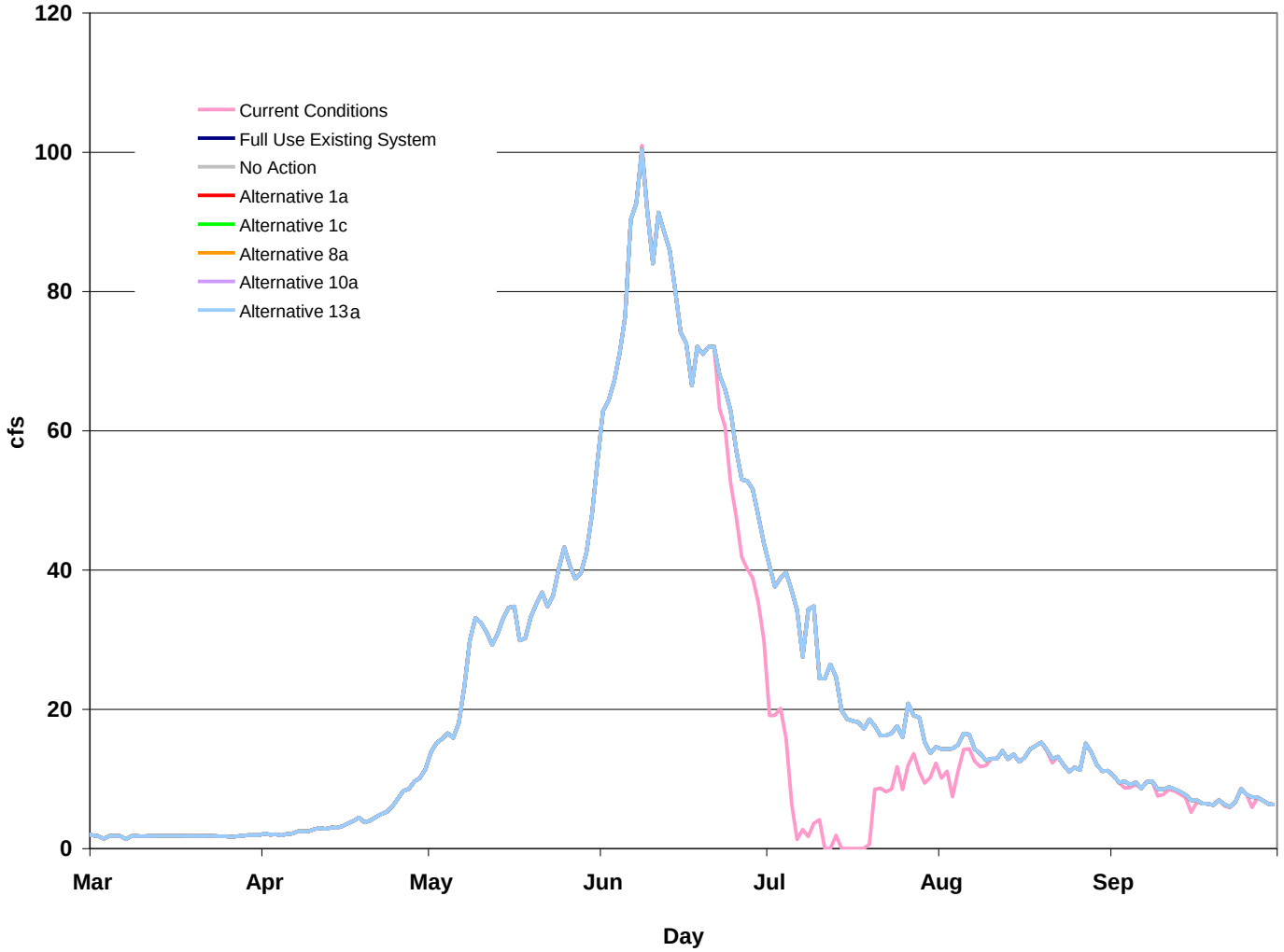


Figure H-4.73. Below Denver Water's Diversion from Steelman Creek – Average Daily Flow (cfs)

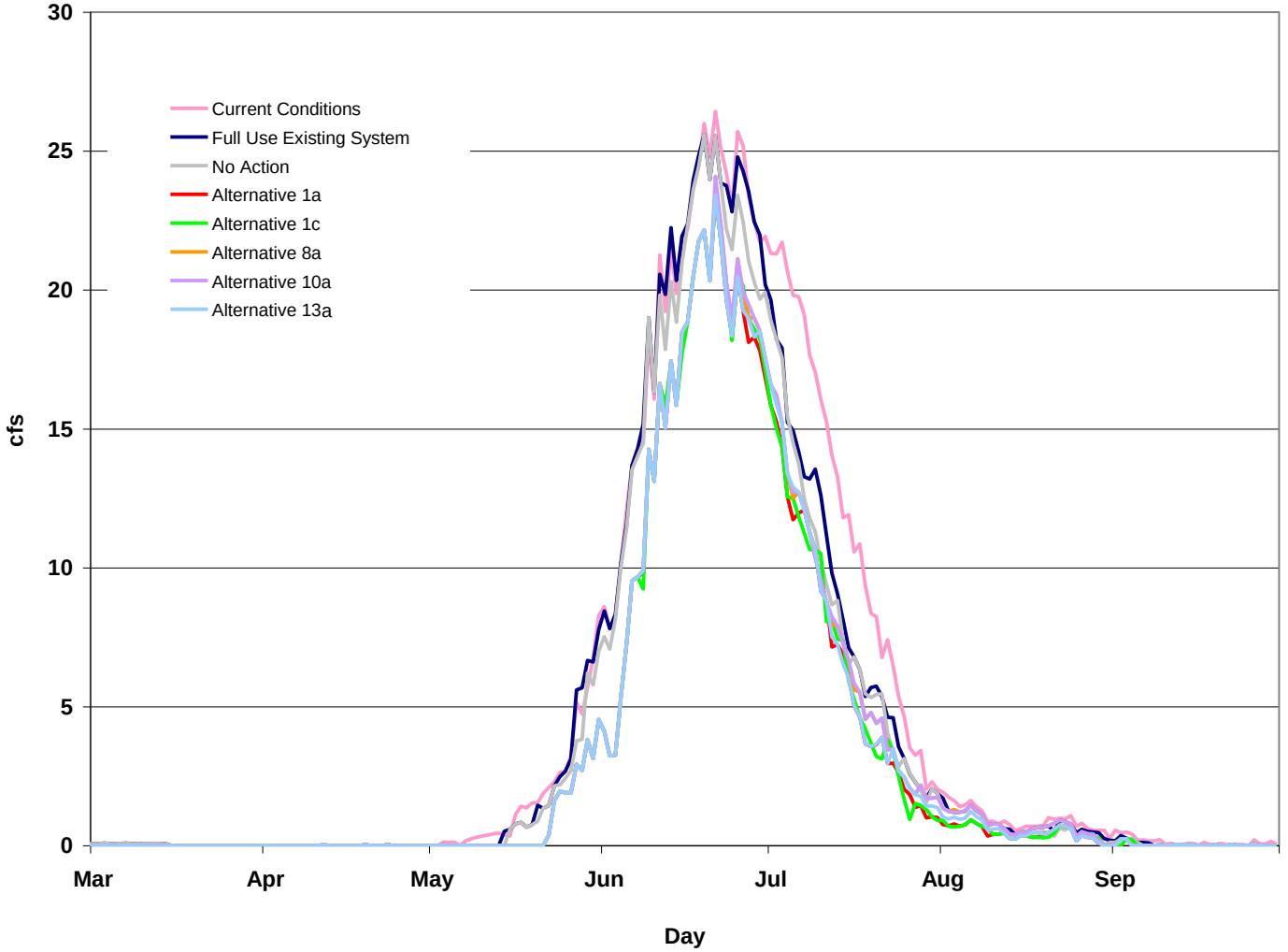


Figure H-4.74. Below Denver Water's Diversion from Steelman Creek – Wet Year Average Daily Flow (cfs)

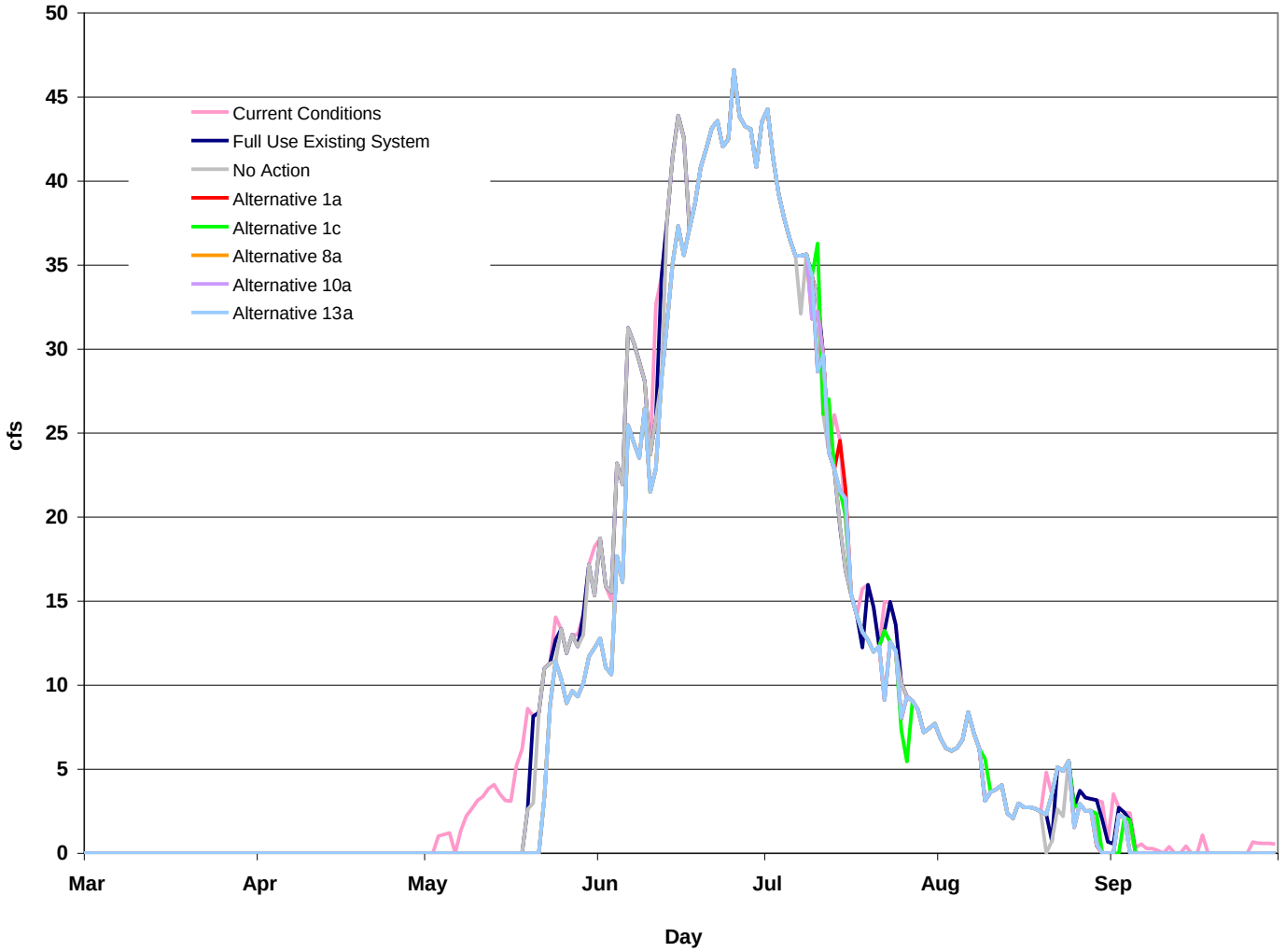


Figure H-4.75. Below Denver Water's Diversion from Steelman Creek – Dry Year Average Daily Flow (cfs)

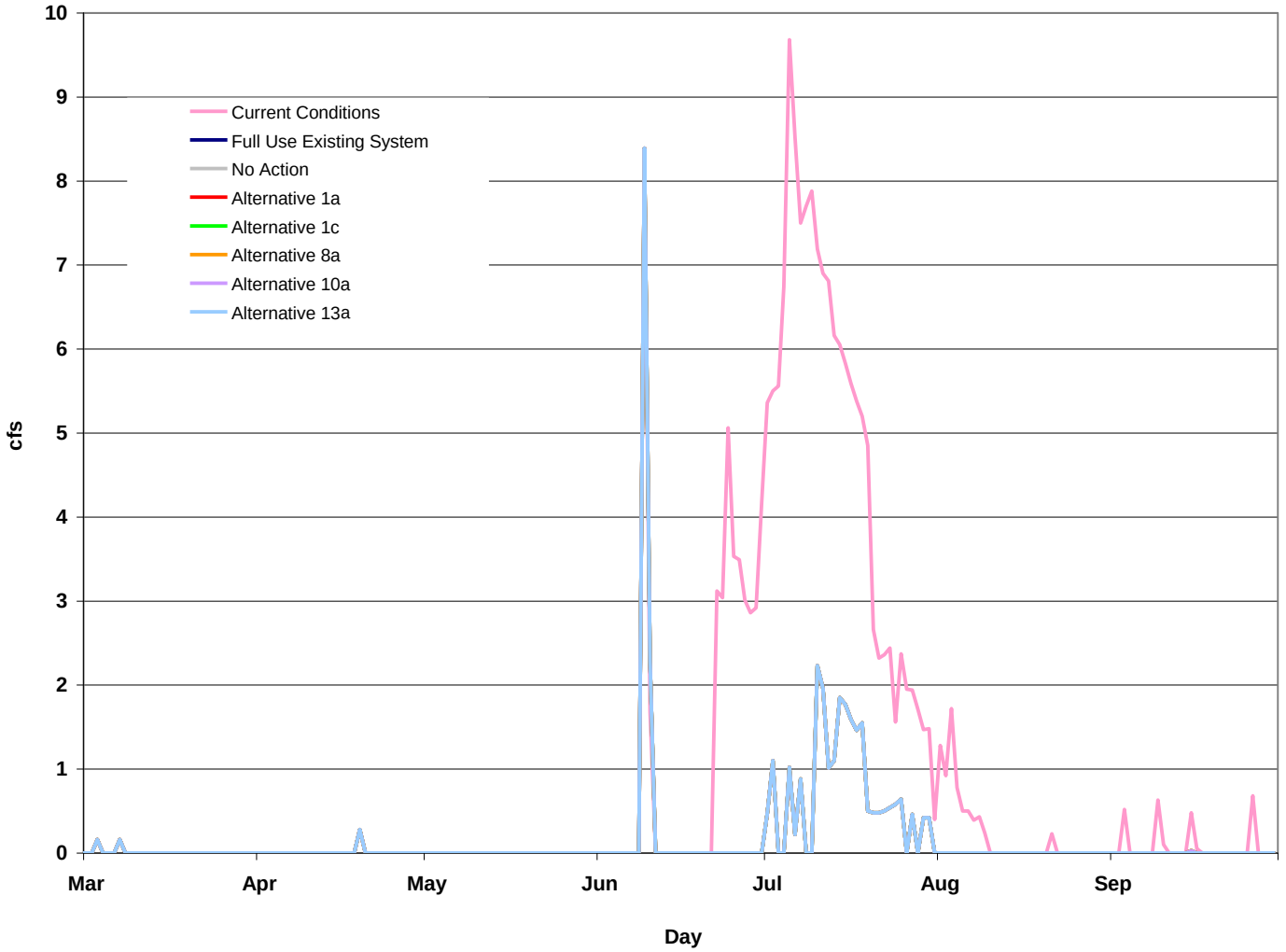


Figure H-4.76. Below Denver Water's Diversion from Bobtail Creek – Average Daily Flow (cfs)

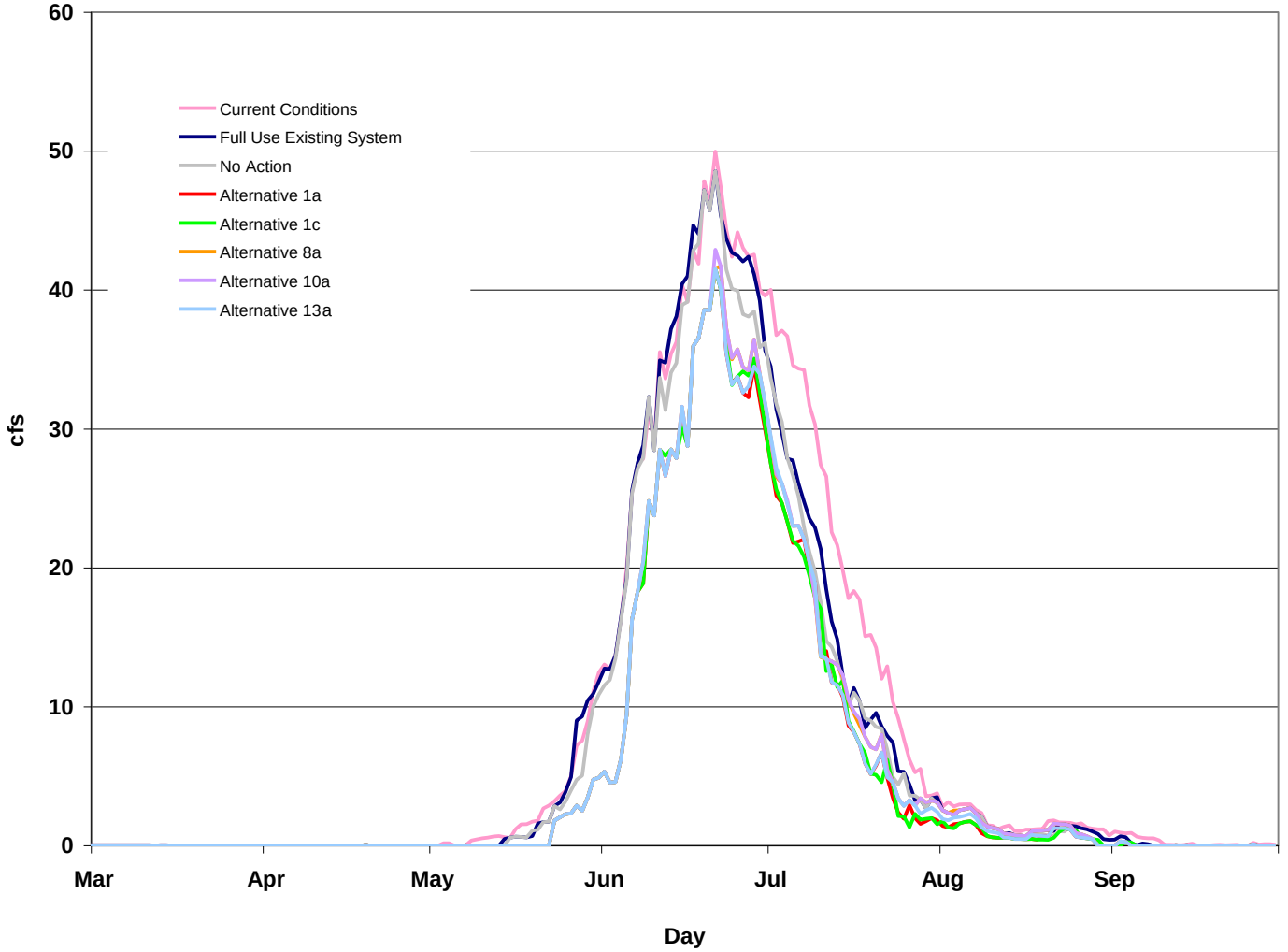


Figure H-4.77. Below Denver Water's Diversion from Bobtail Creek – Wet Year Average Daily Flow (cfs)

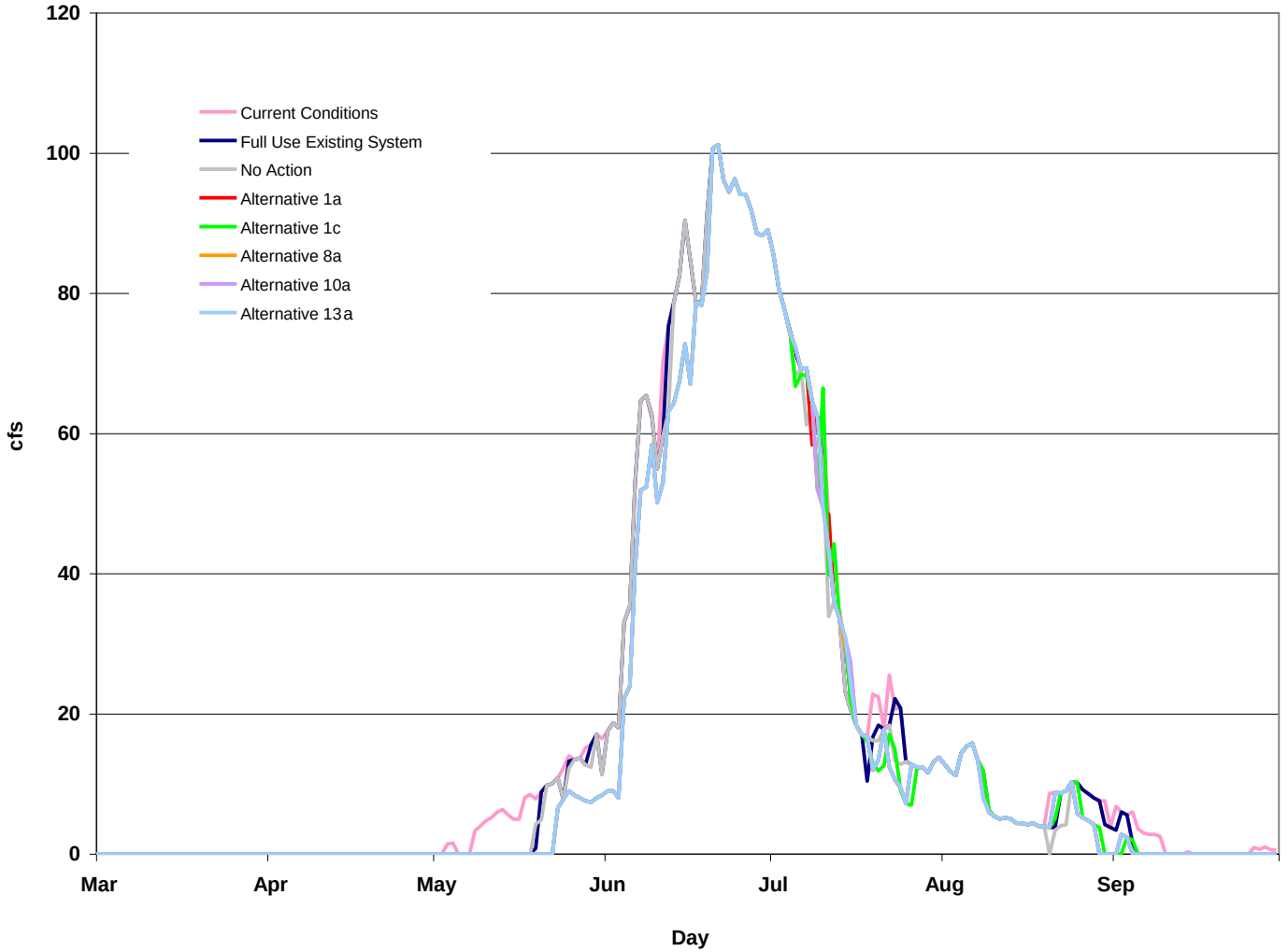


Figure H-4.78. Below Denver Water's Diversion from Bobtail Creek – Dry Year Average Daily Flow (cfs)

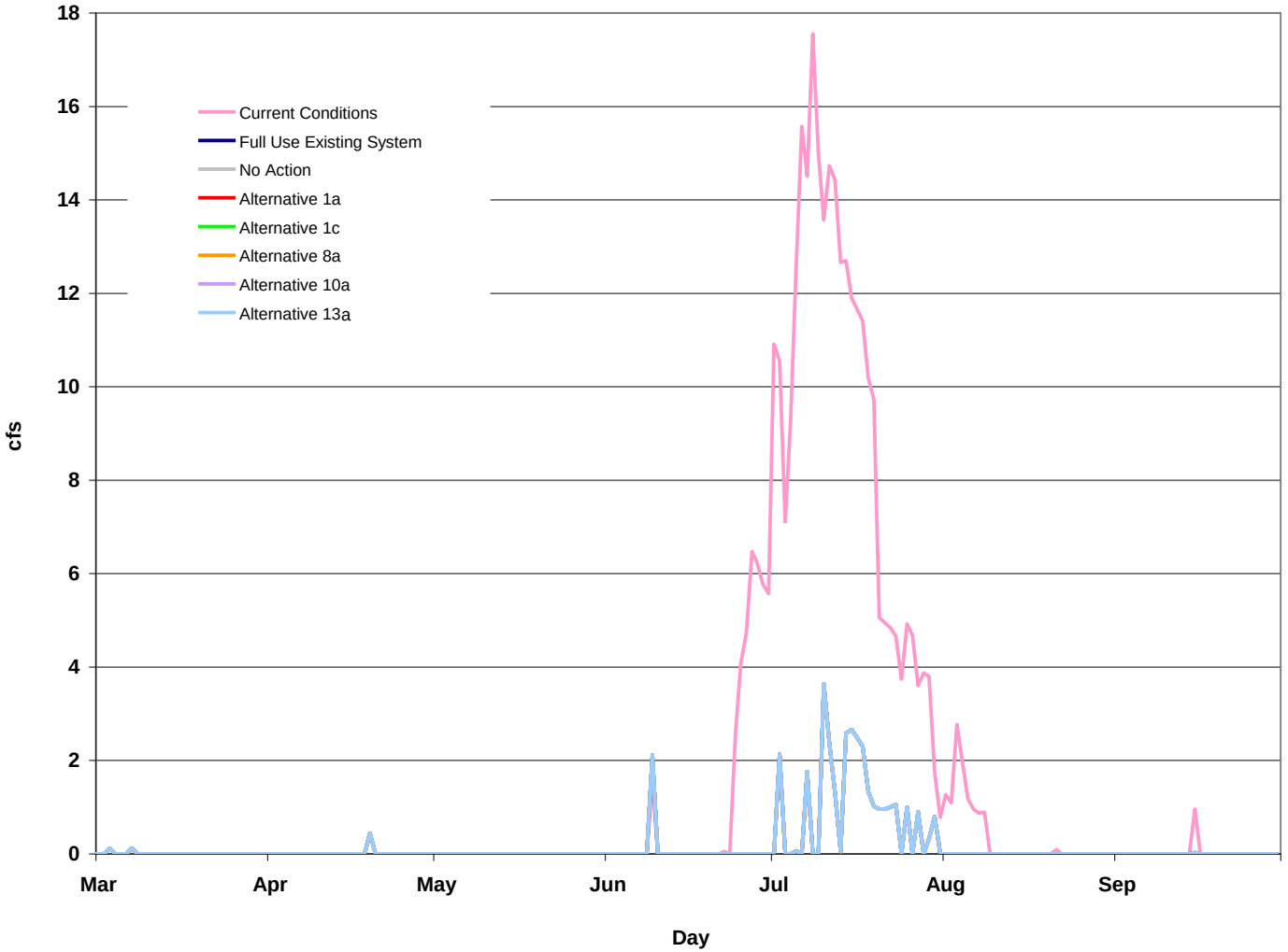


Figure H-4.79. Below Denver Water's Diversion from Jones Creek – Average Daily Flow (cfs)

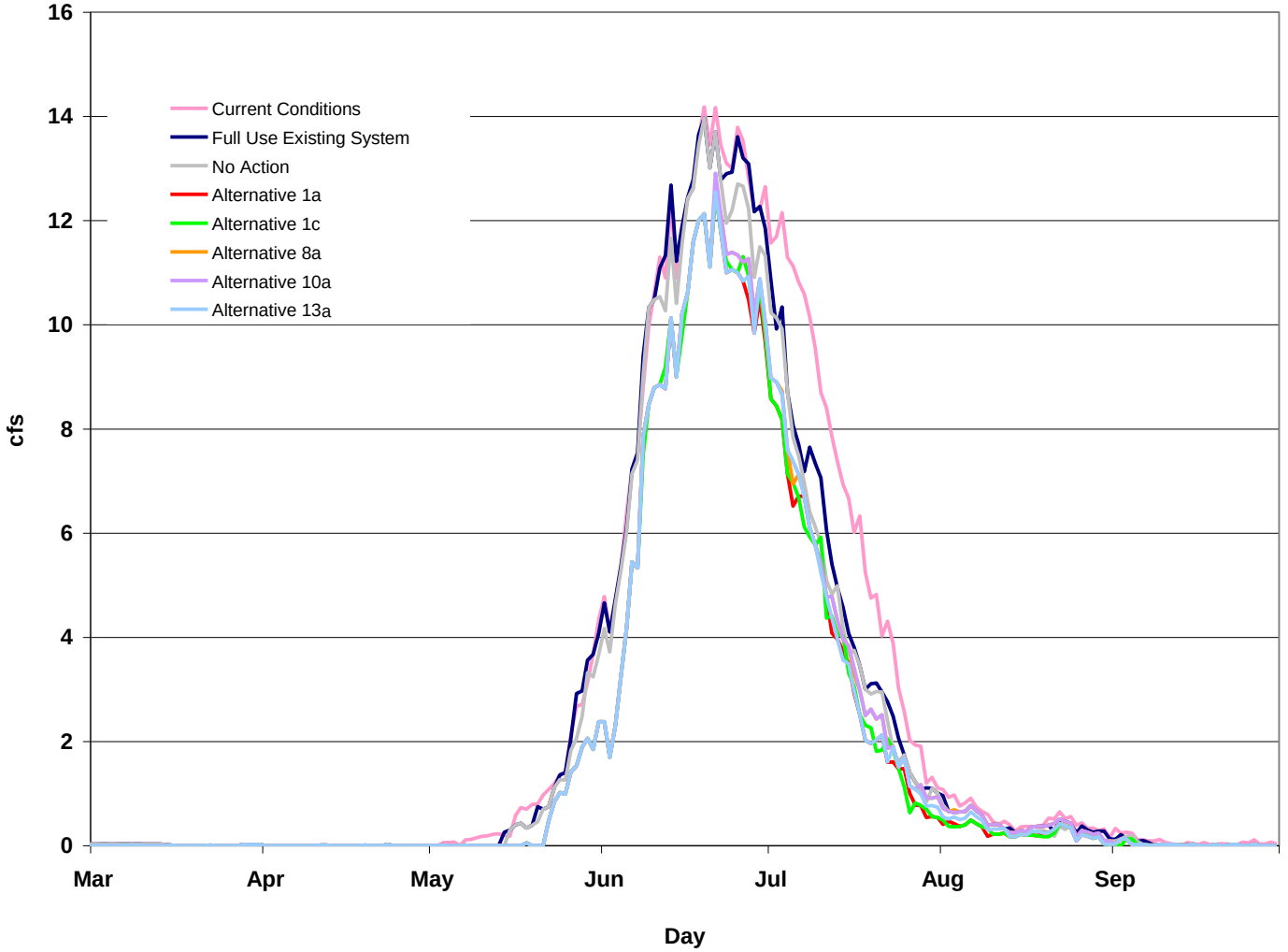


Figure H-4.80. Below Denver Water's Diversion from Jones Creek – Wet Year Average Daily Flow (cfs)

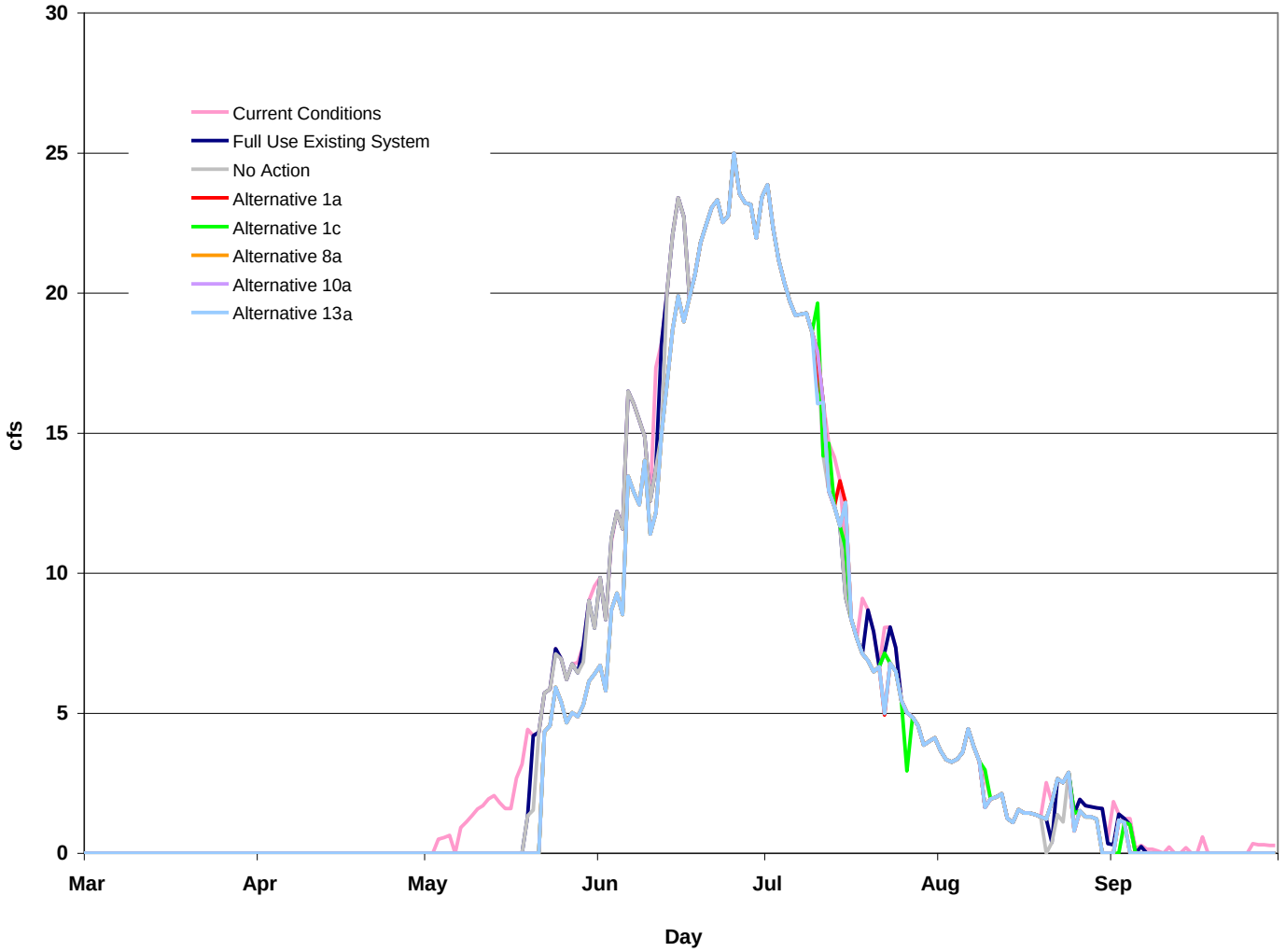


Figure H-4.81. Below Denver Water's Diversion from Jones Creek – Dry Year Average Daily Flow (cfs)

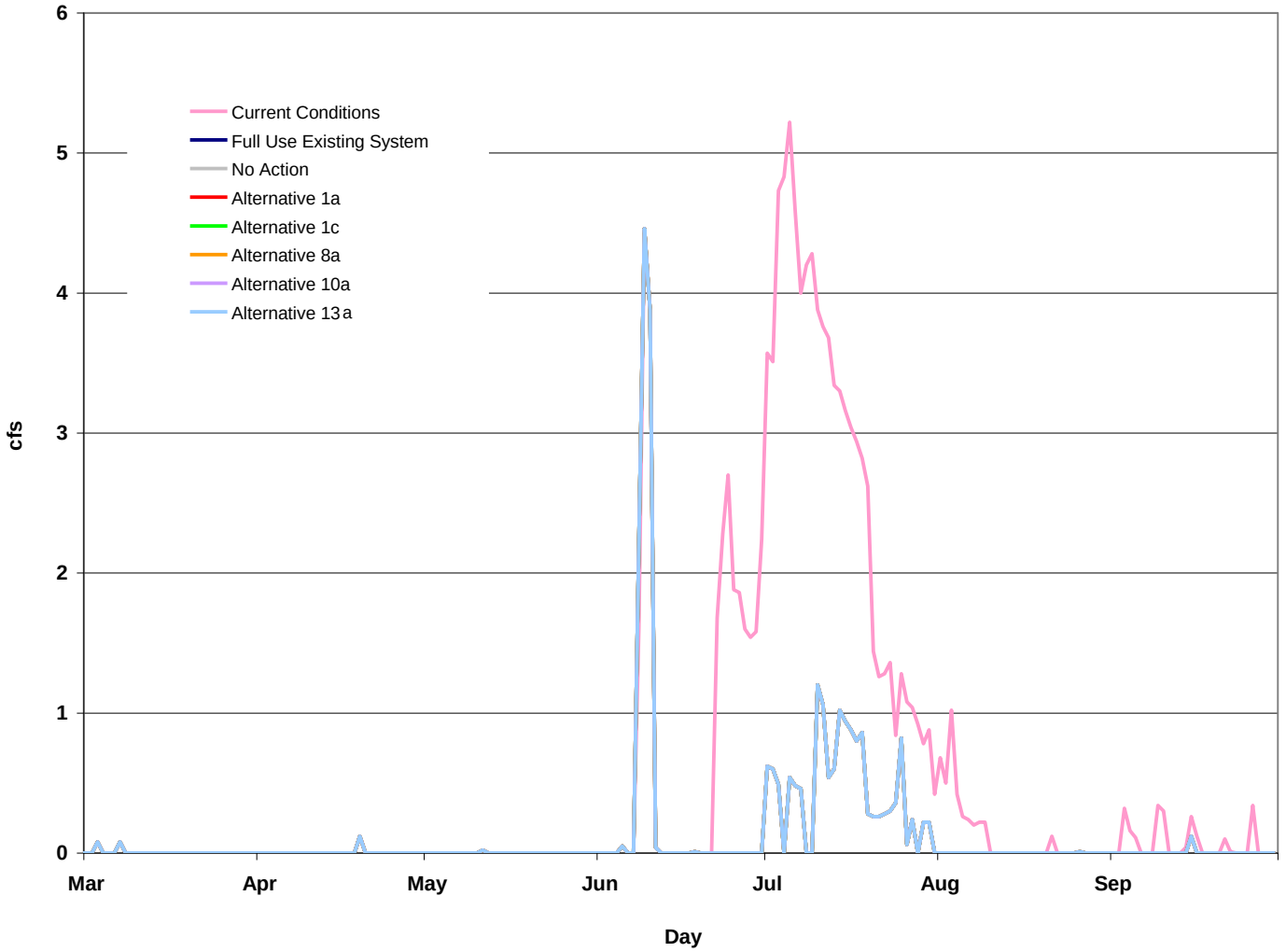


Figure H-4.82. Below Denver Water's Diversion from McQueary Creek – Average Daily Flow (cfs)

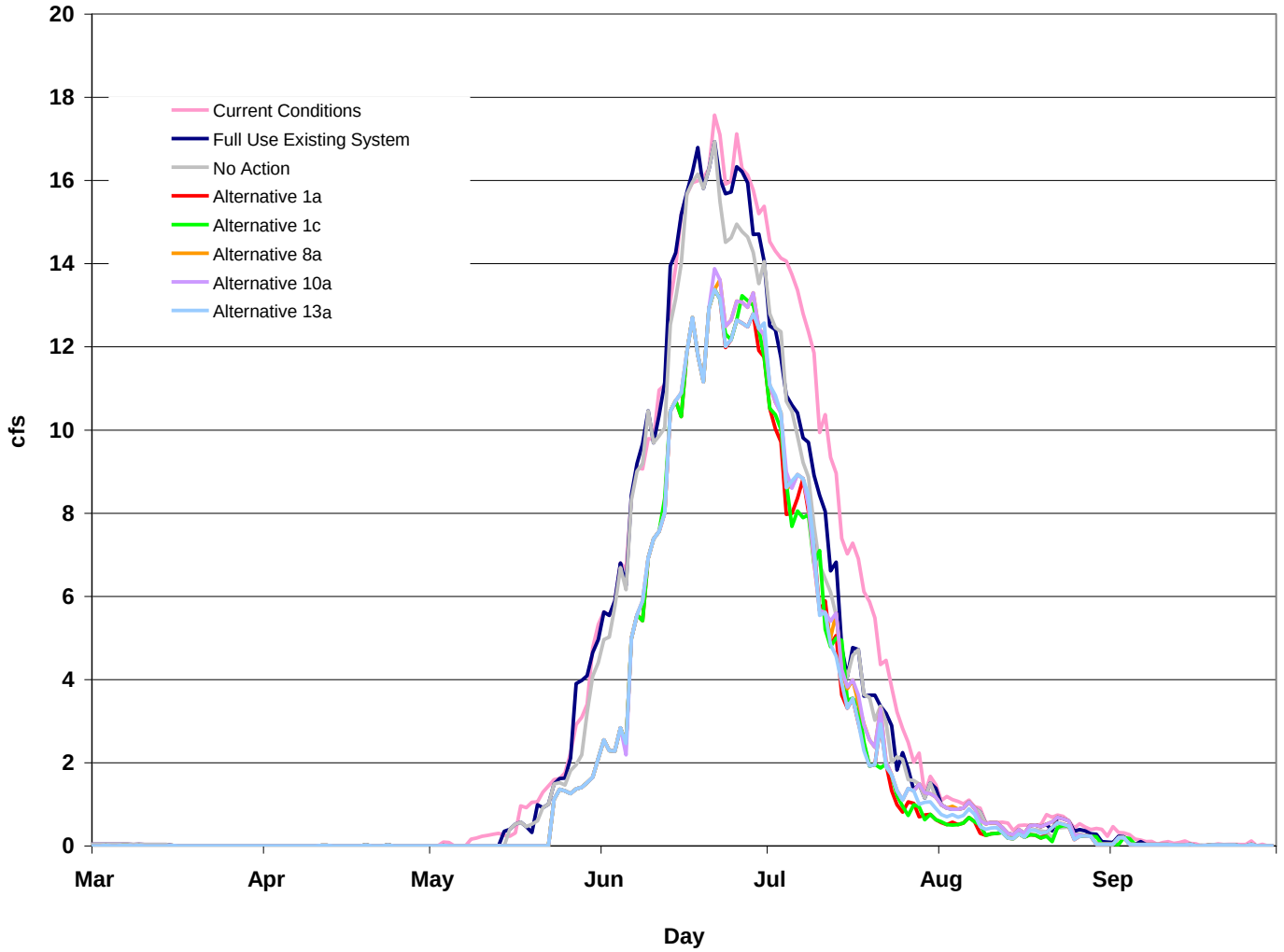


Figure H-4.83. Below Denver Water's Diversion from McQueary Creek – Wet Year Average Daily Flow (cfs)

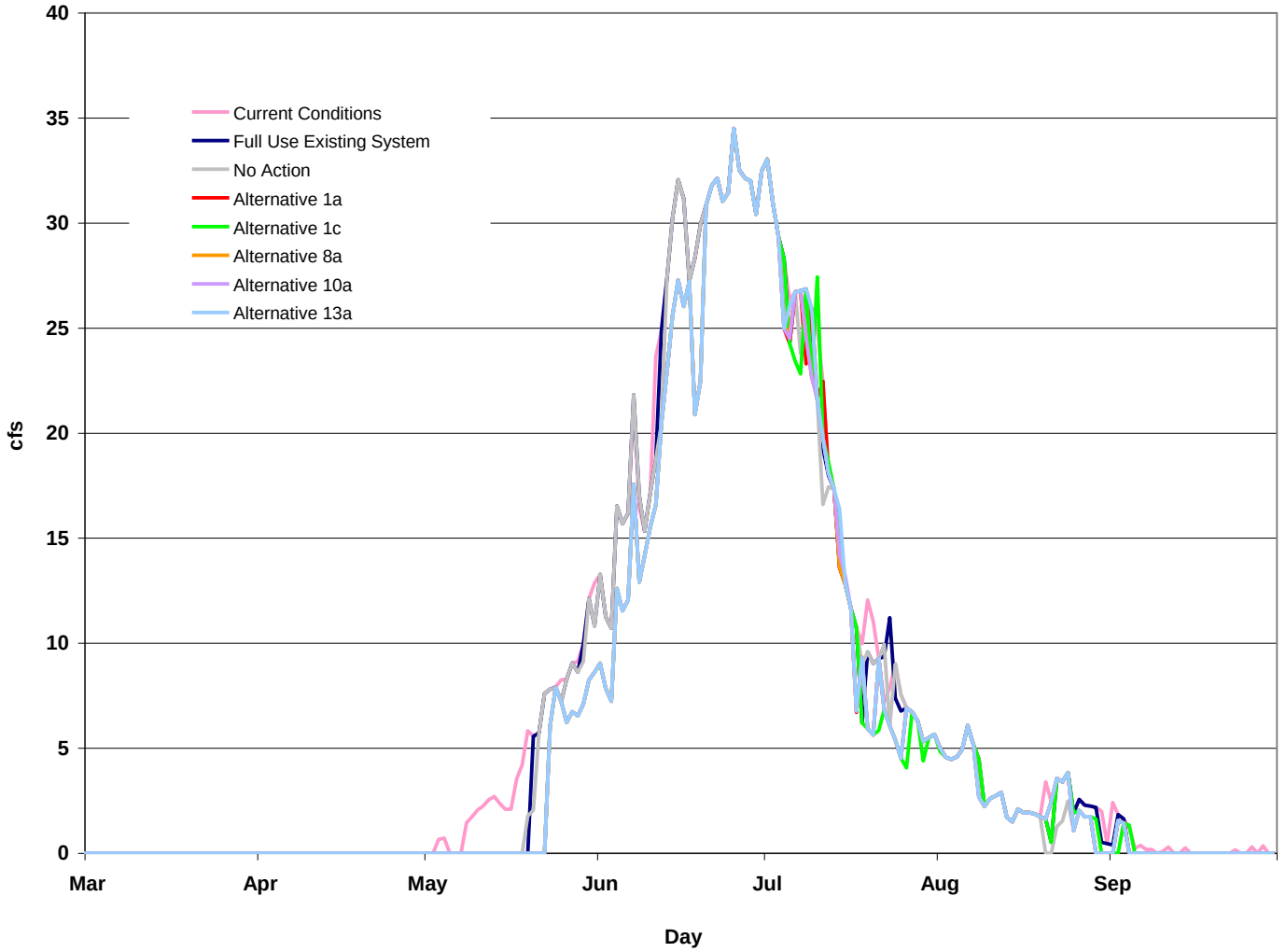


Figure H-4.84. Below Denver Water's Diversion from McQueary Creek – Dry Year Average Daily Flow (cfs)

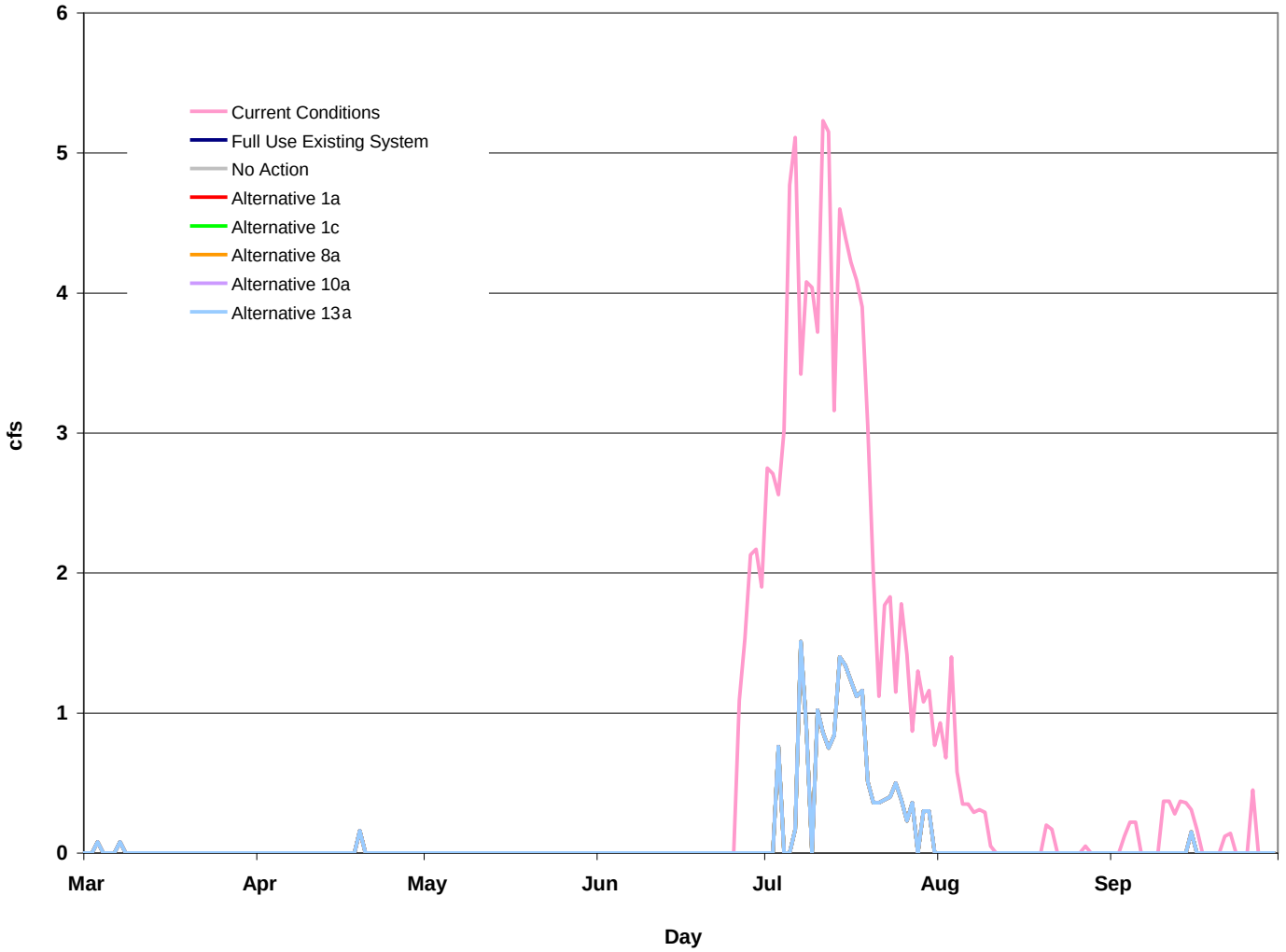


Figure H-4.85. Williams Fork River below Steelman Creek Gage – Average Daily Flow (cfs)

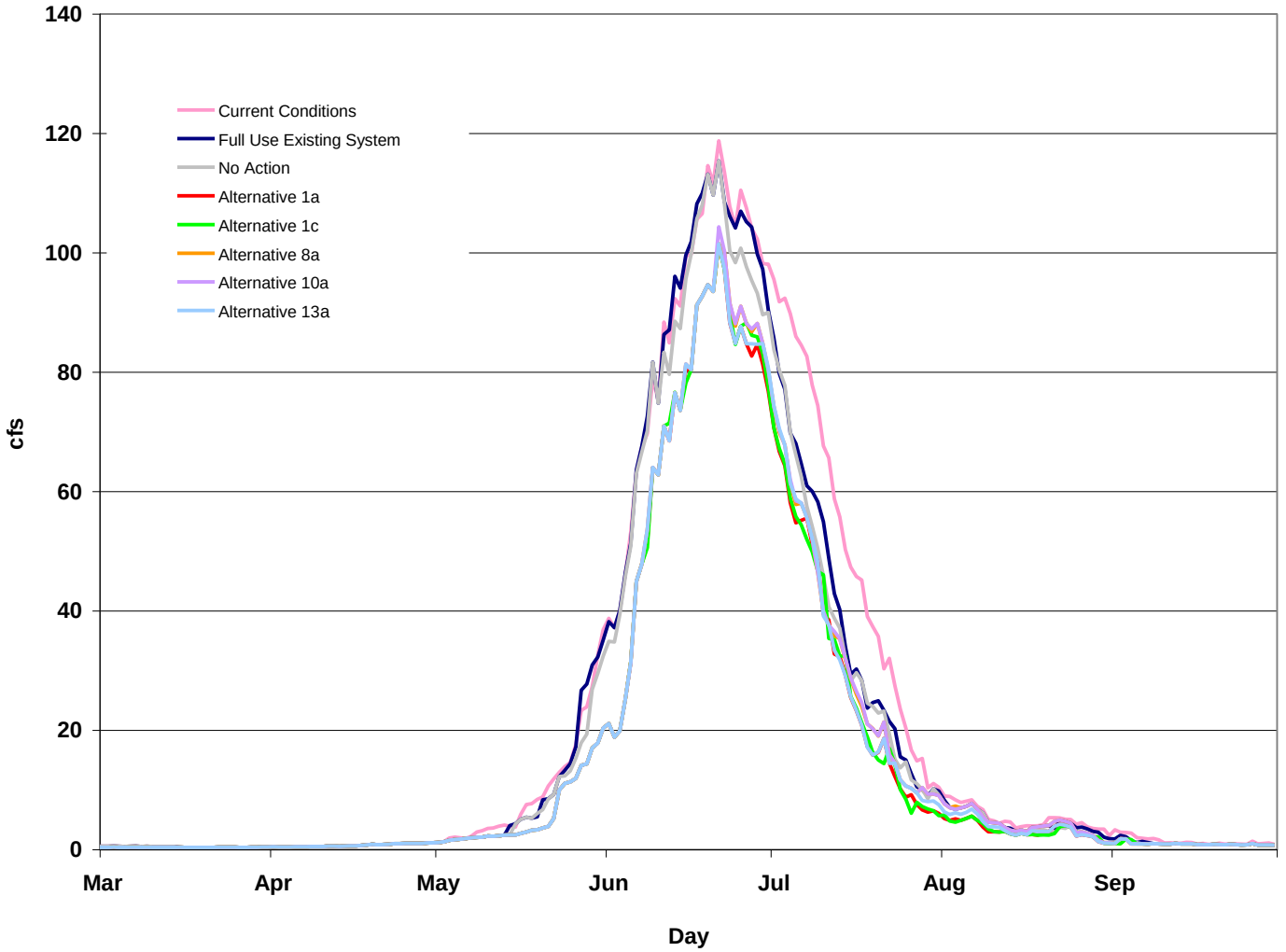


Figure H-4.86. Williams Fork River below Steelman Creek Gage – Wet Year Average Daily Flow (cfs)

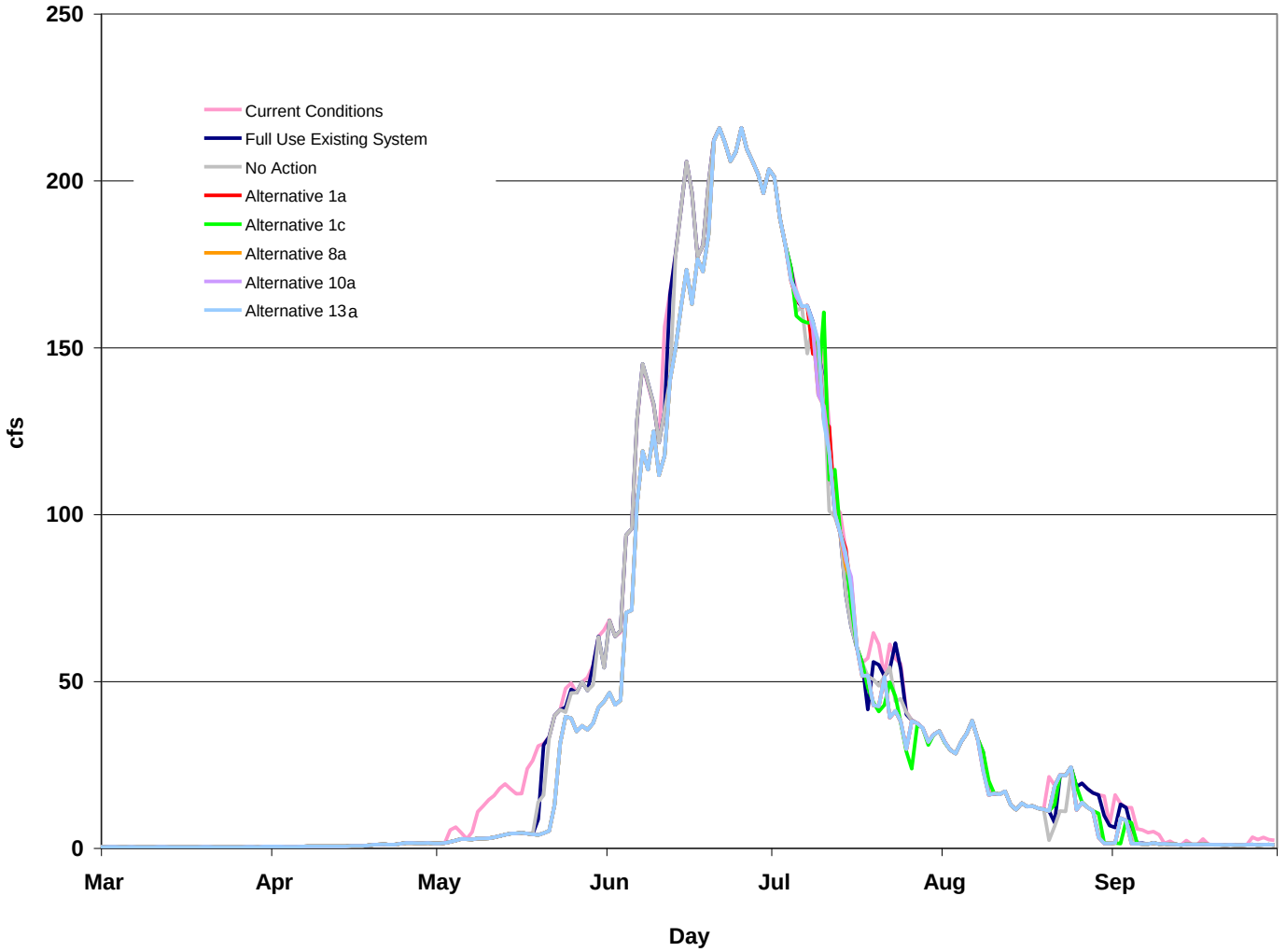


Figure H-4.87. Williams Fork River below Steelman Creek Gage – Dry Year Average Daily Flow (cfs)

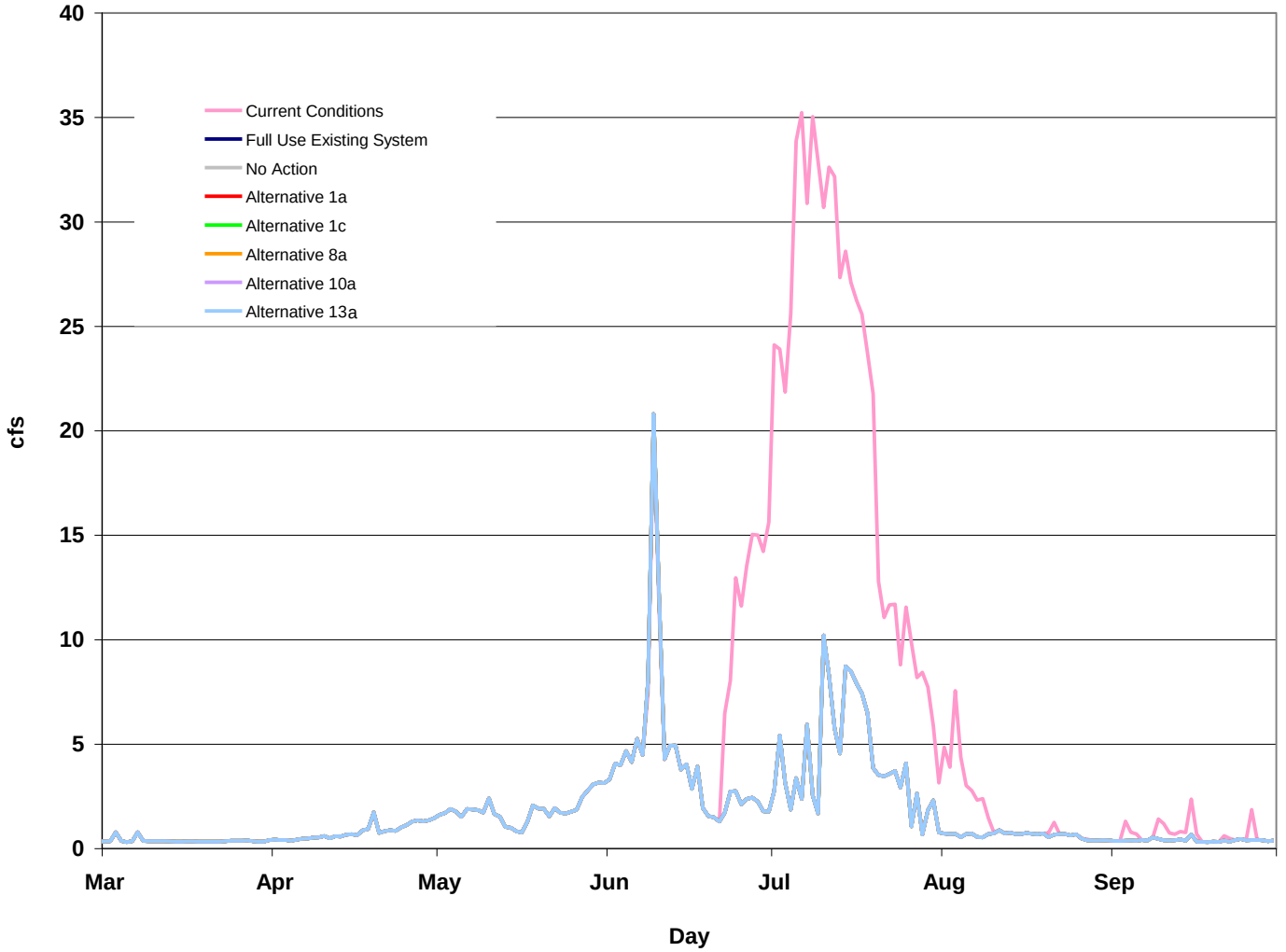


Figure H-4.88. Williams Fork Reservoir – Average Daily Outflow (cfs)

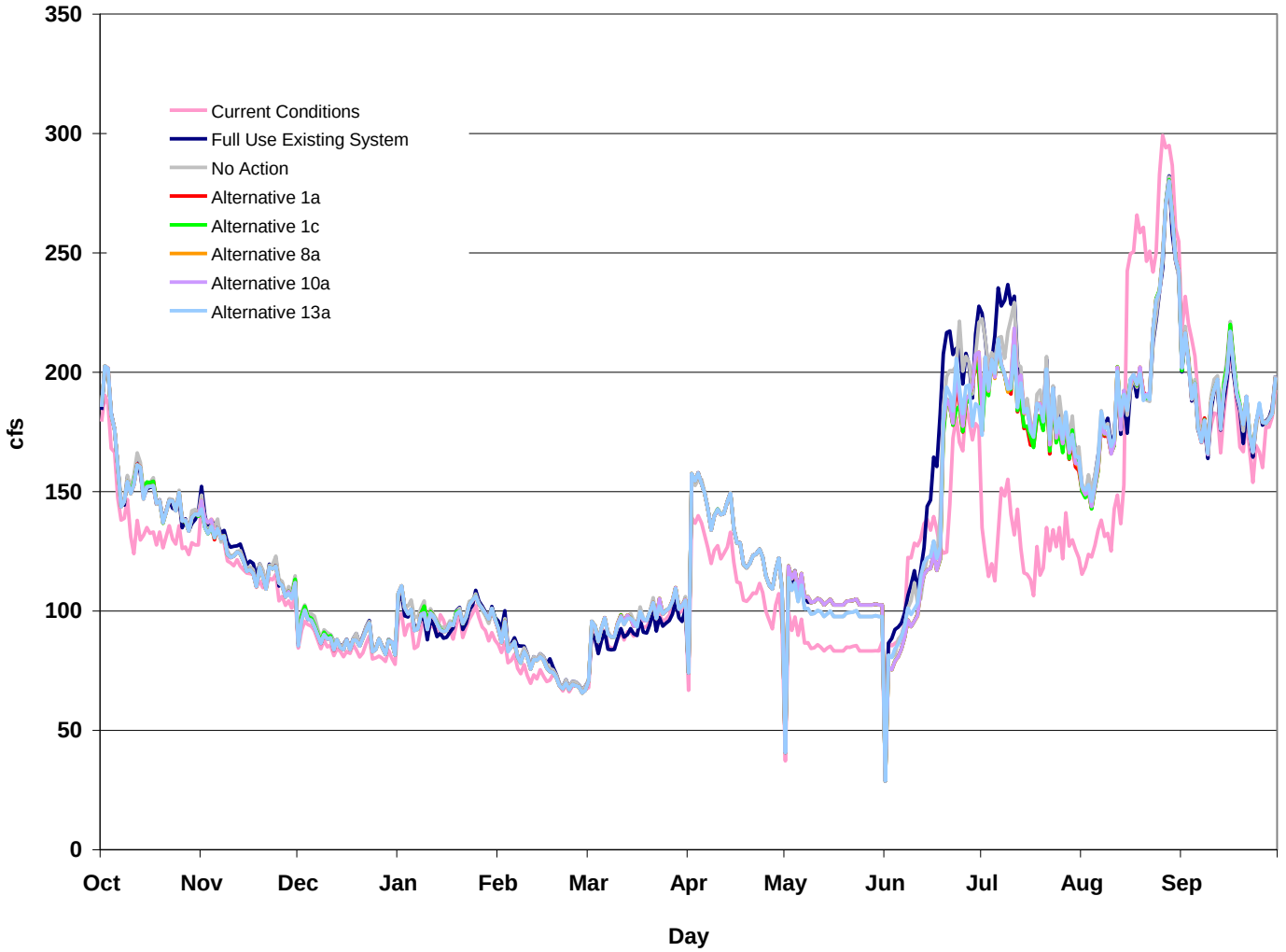


Figure H-4.89. Williams Fork Reservoir – Wet Year Average Daily Outflow (cfs)

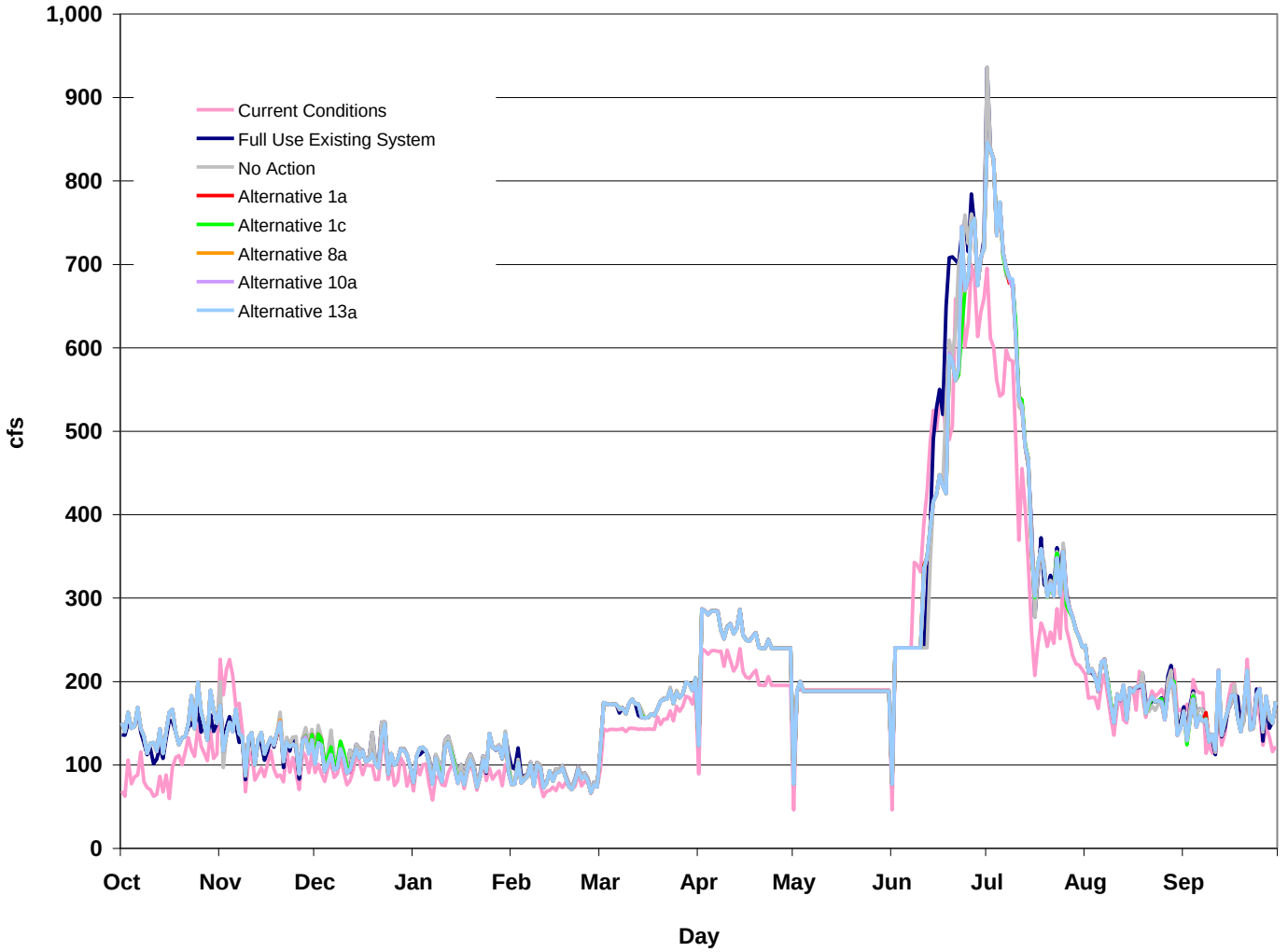


Figure H-4.90. Williams Fork Reservoir – Dry Year Average Daily Outflow (cfs)

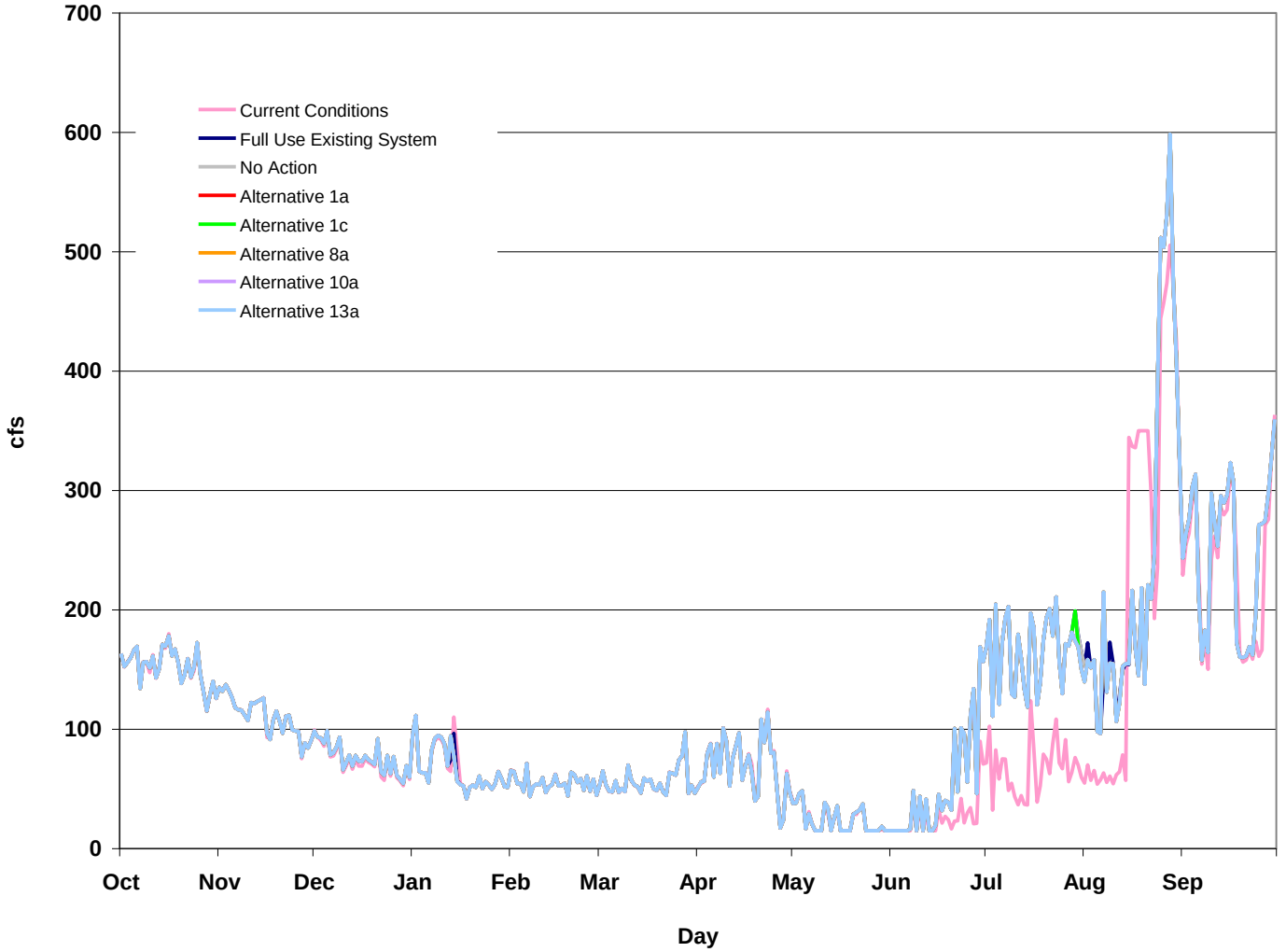


Figure H-4.91. Colorado River below Windy Gap Diversion – Average Daily Flow (cfs)

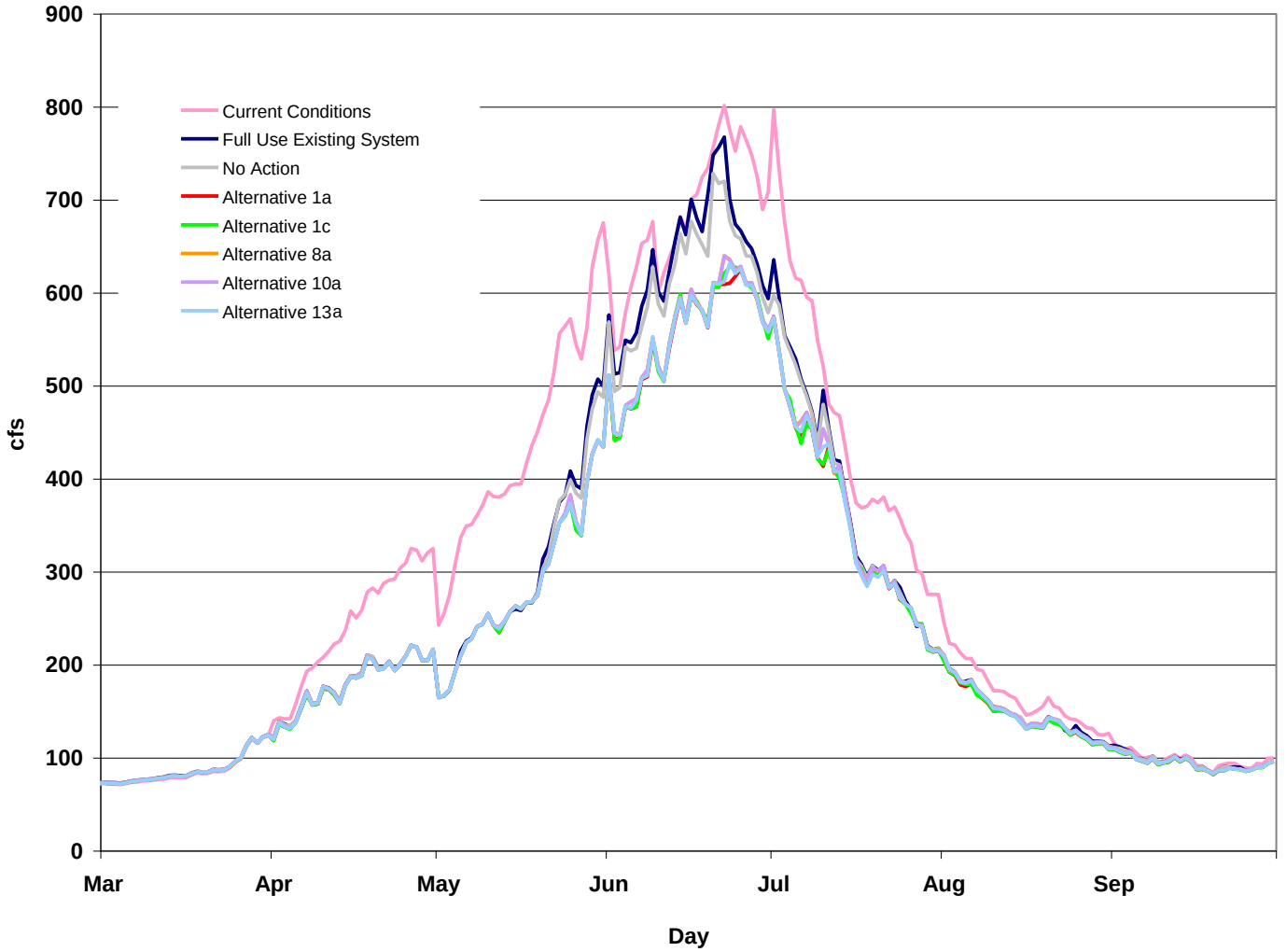


Figure H-4.92. Colorado River below Windy Gap Diversion – Wet Year Average Daily Flow (cfs)

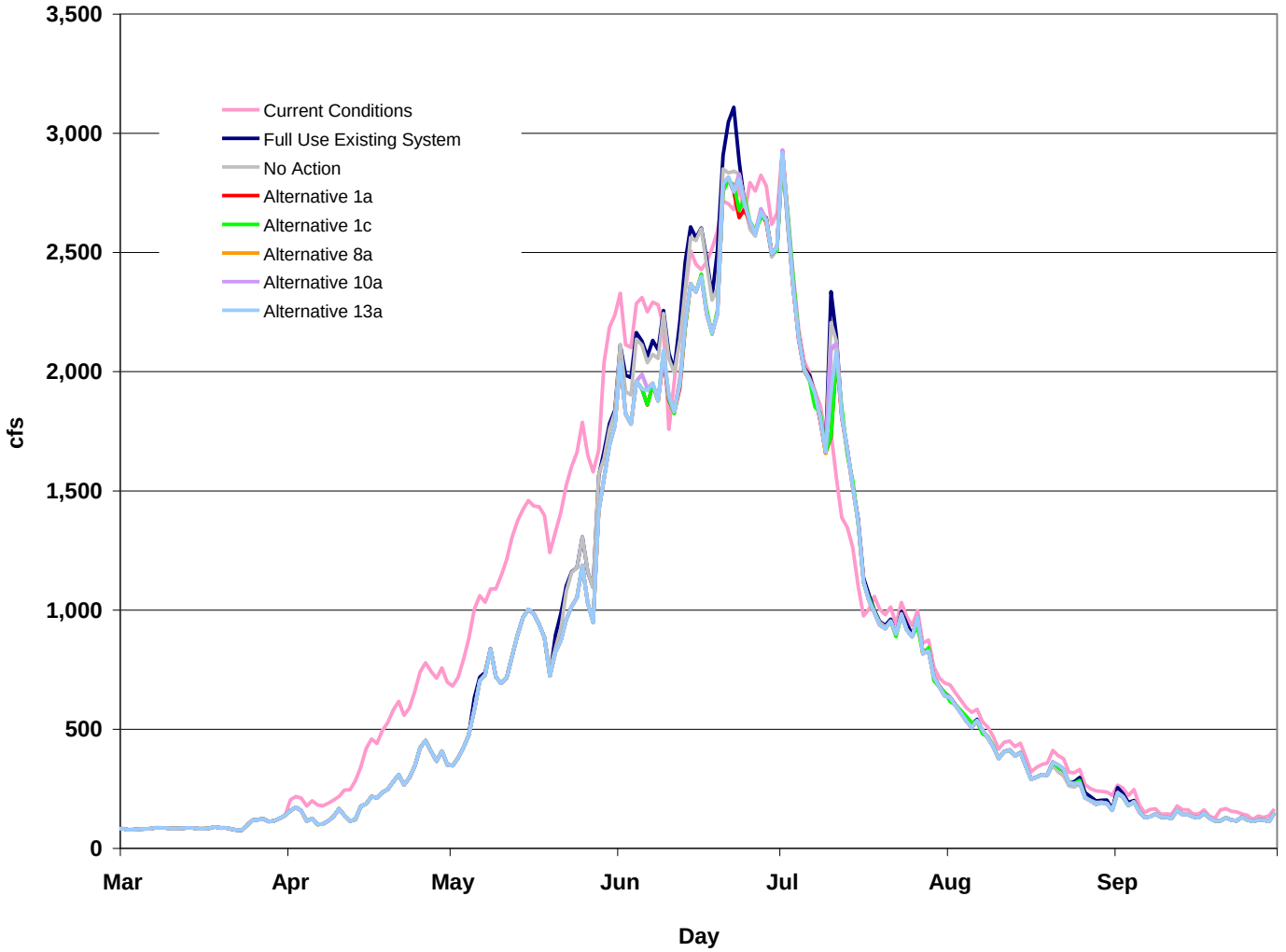


Figure H-4.93. Colorado River below Windy Gap Diversion – Dry Year Average Daily Flow (cfs)

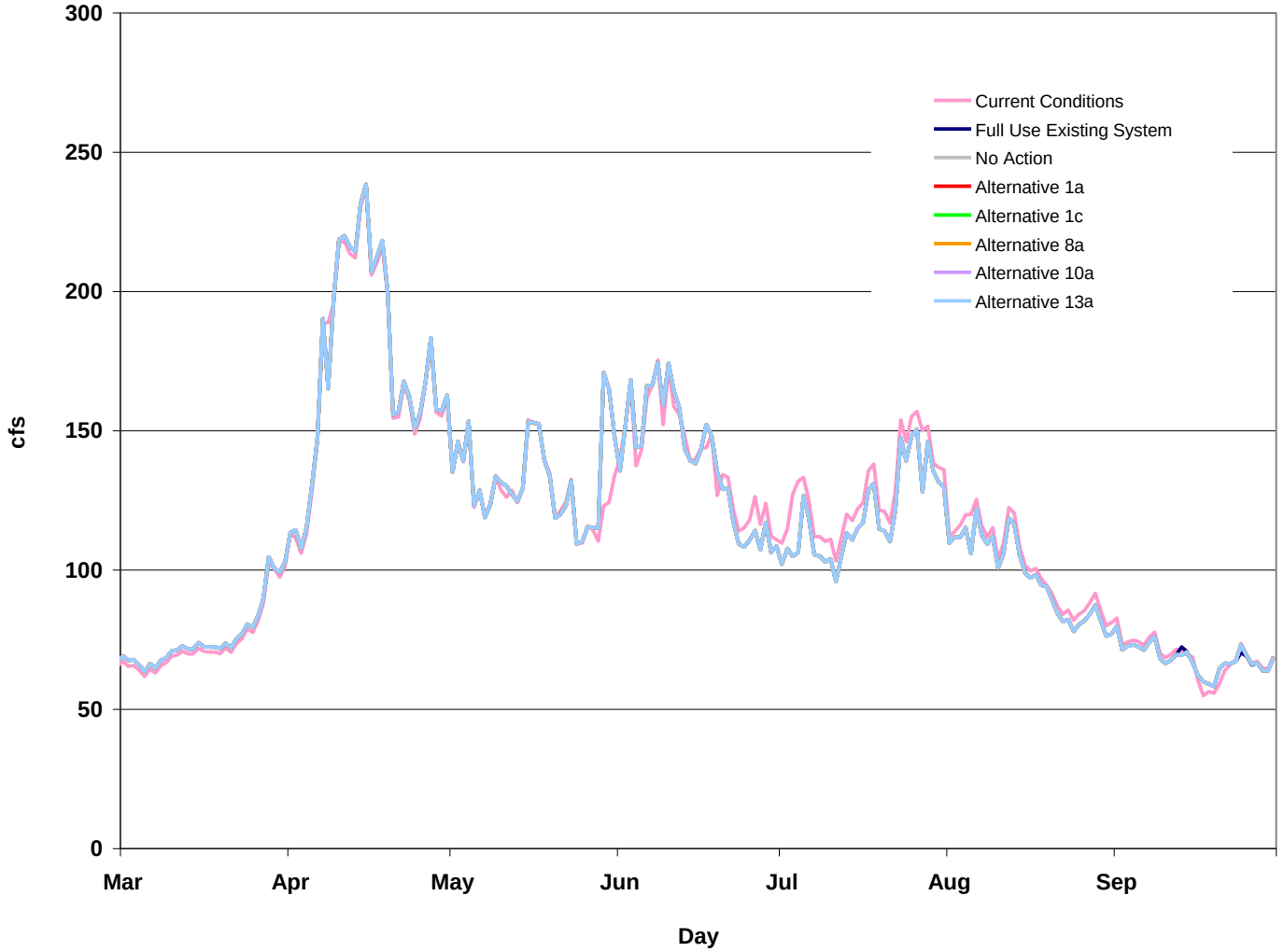


Figure H-4.94. Colorado River below Confluence with Williams Fork River – Average Daily Flow (cfs)

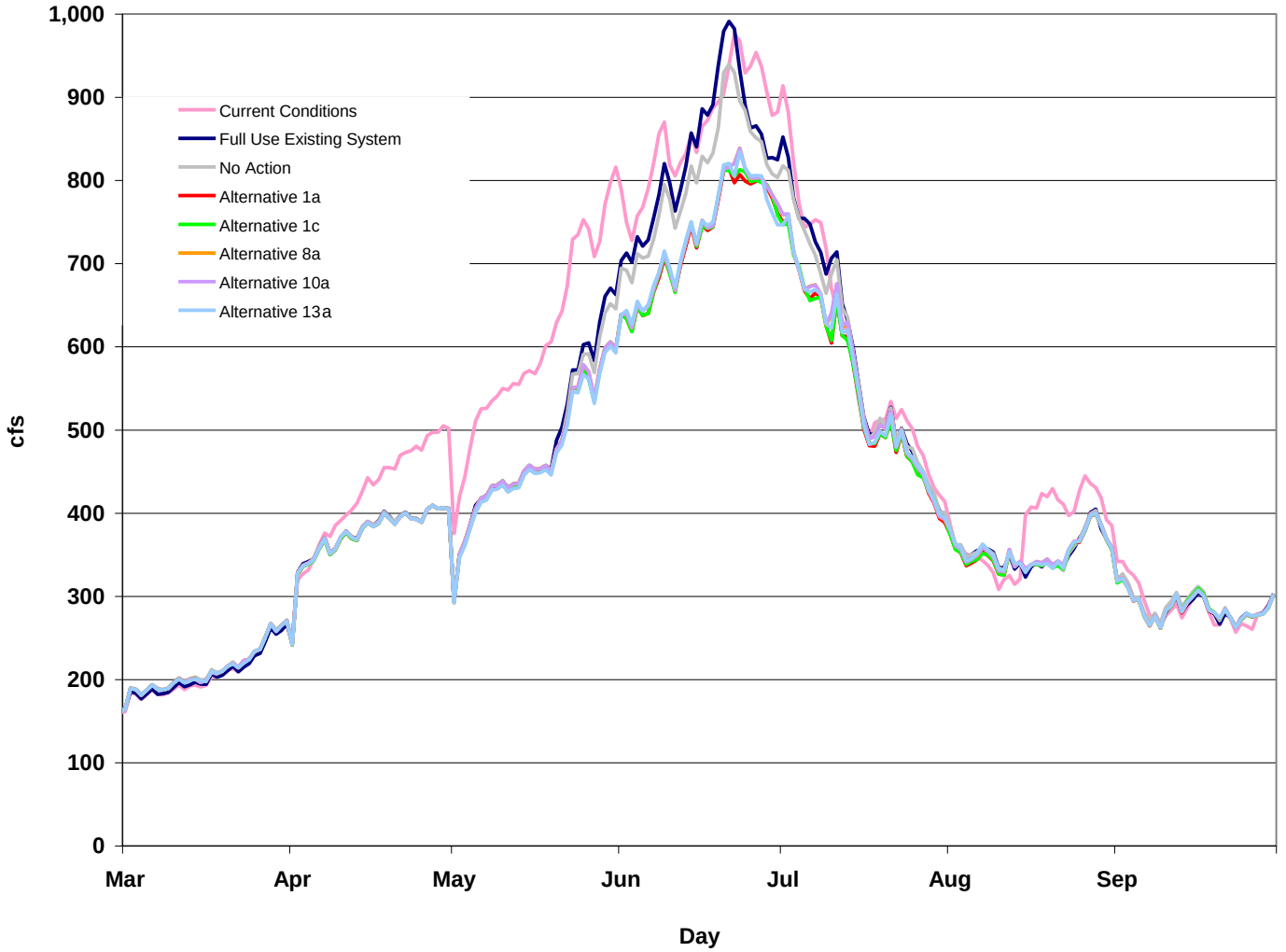


Figure H-4.95. Colorado River below Confluence with Williams Fork River – Wet Year Average Daily Flow (cfs)

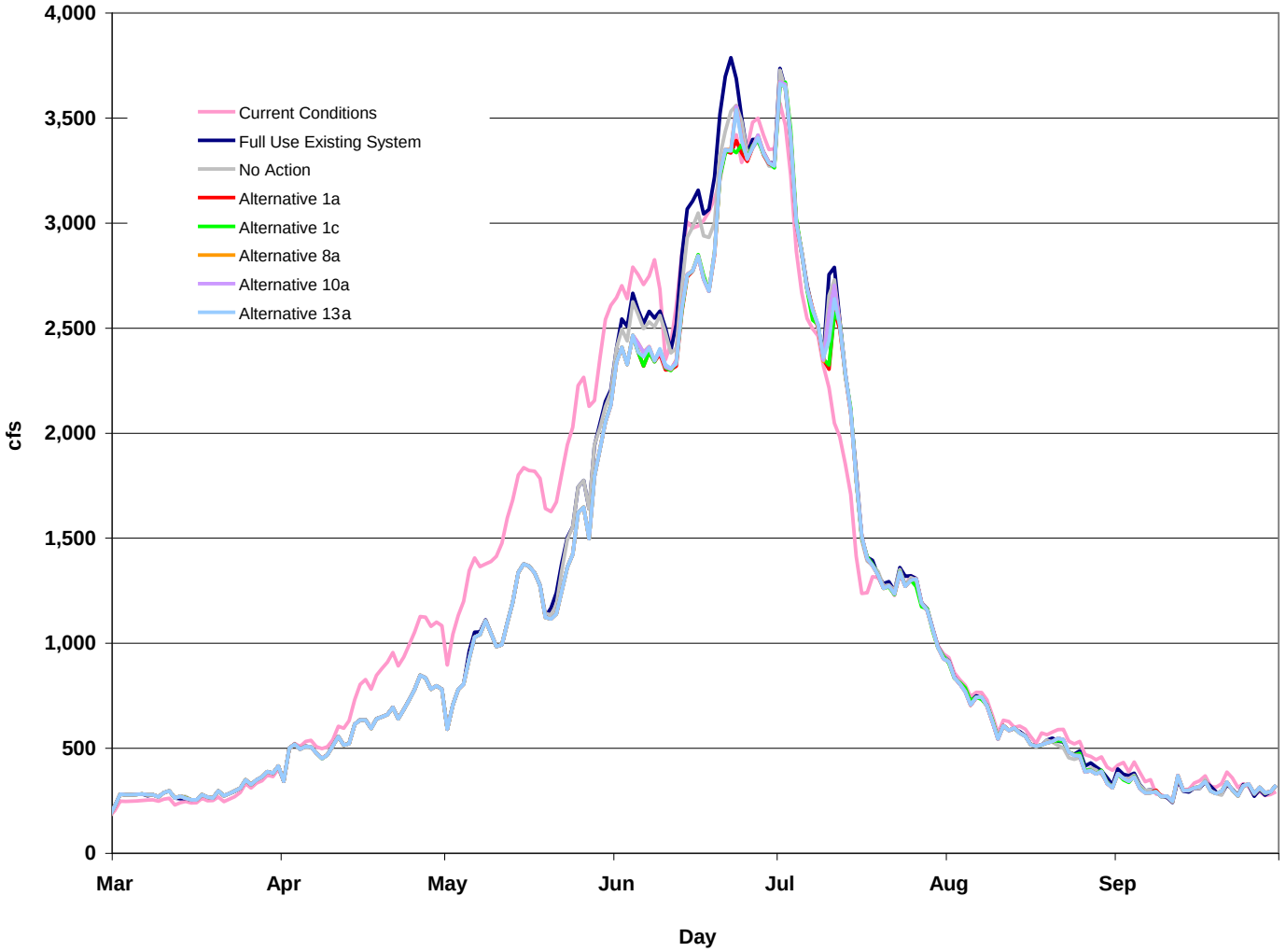


Figure H-4.96. Colorado River below Confluence with Williams Fork River – Dry Year Average Daily Flow (cfs)

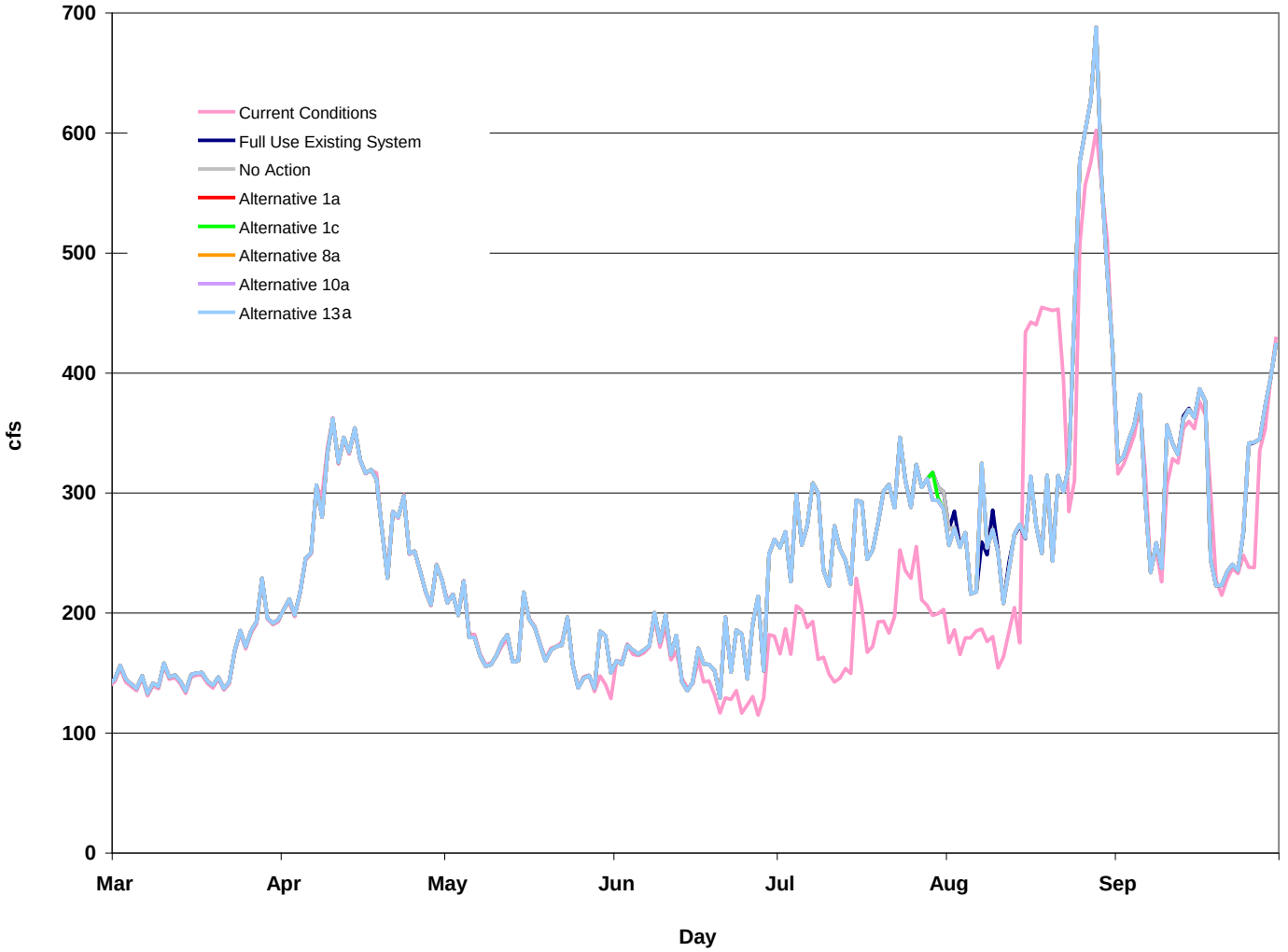


Figure H-4.97. Colorado River near Kremmling Gage – Average Daily Flow (cfs)

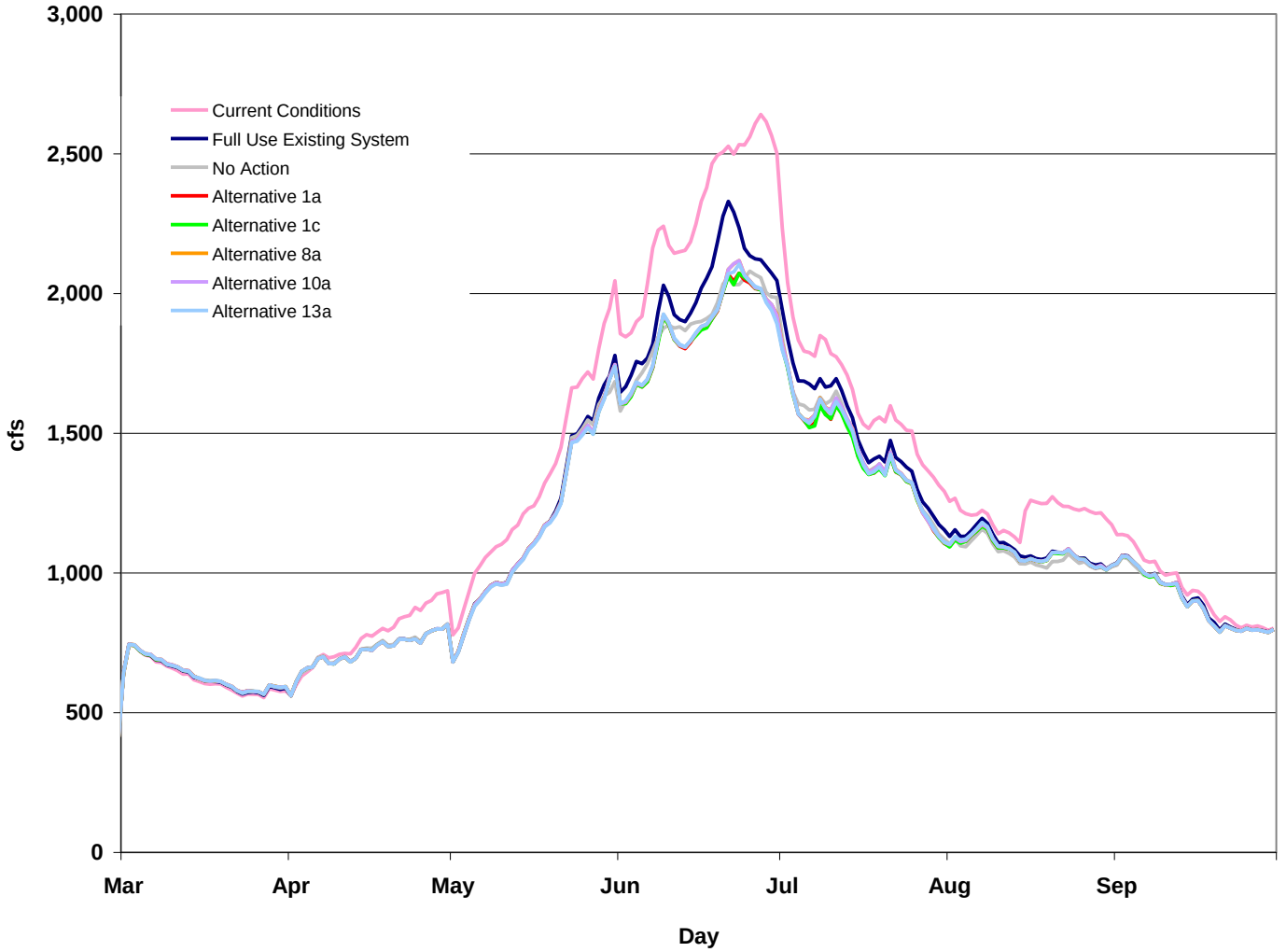


Figure H-4.98. Colorado River near Kremmling Gage – Wet Year Average Daily Flow (cfs)

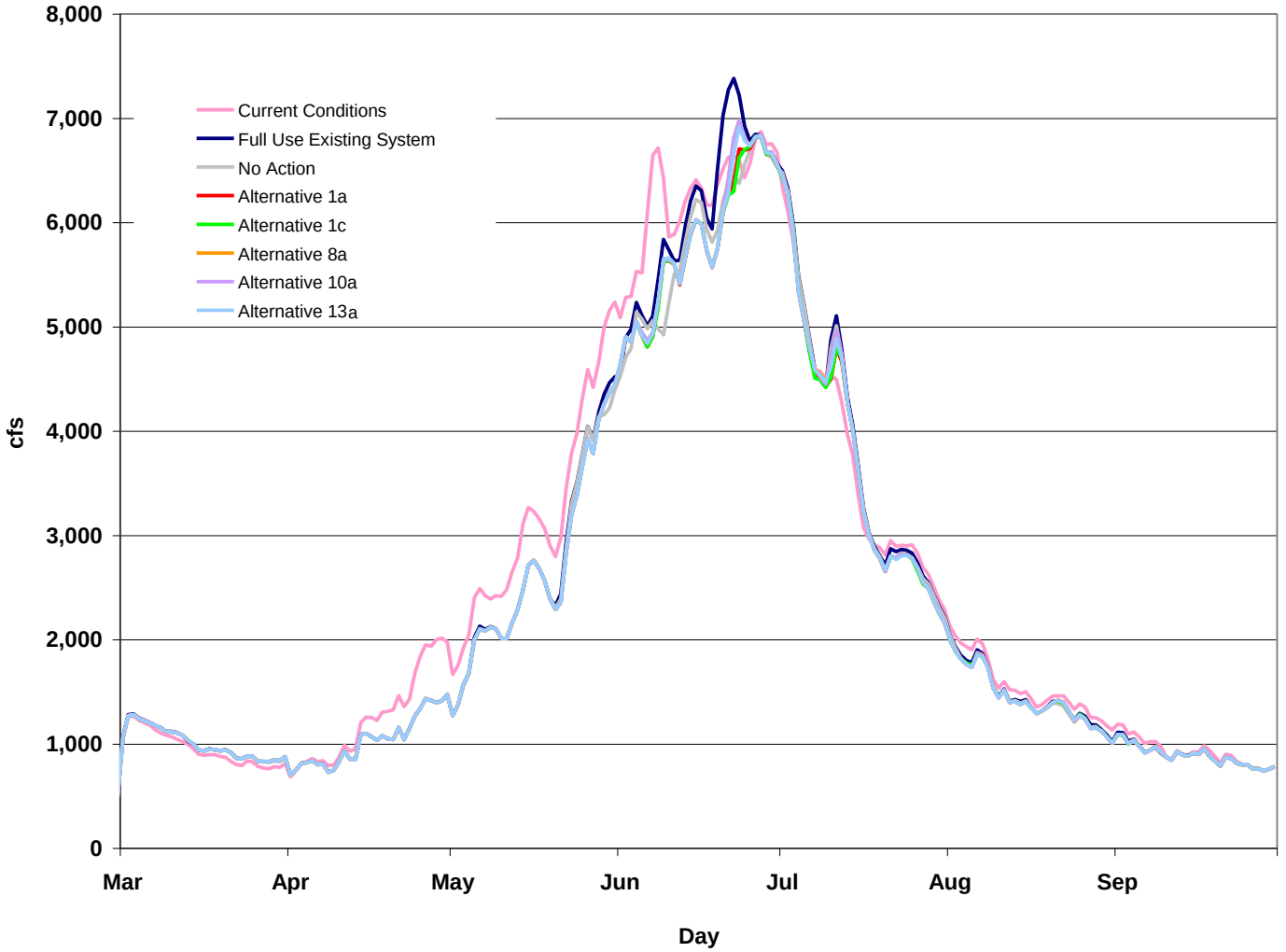


Figure H-4.99. Colorado River near Kremmling Gage – Dry Year Average Daily Flow (cfs)

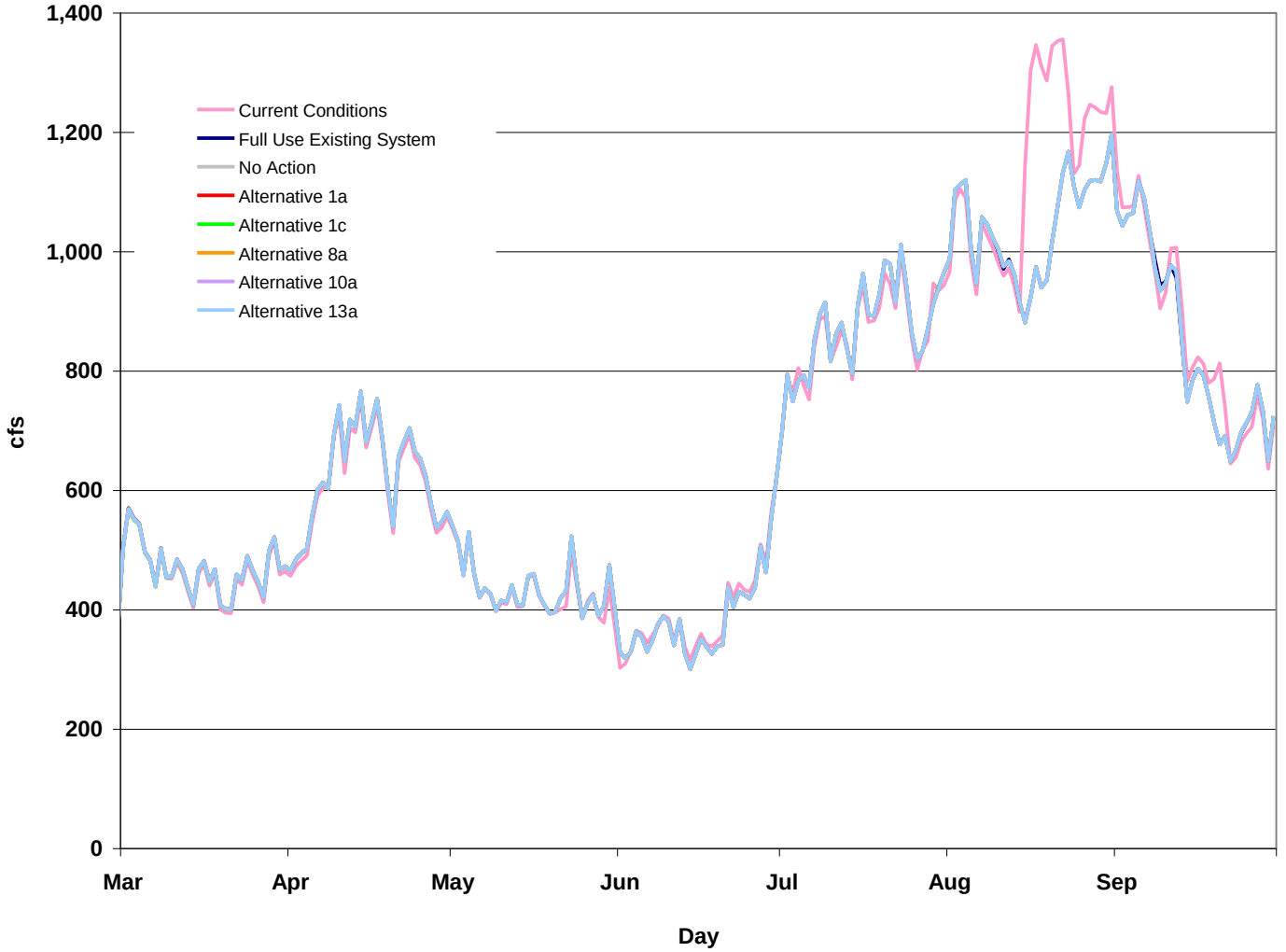


Figure H-4.100. Wolford Mountain Reservoir – Average Daily Flow (cfs)

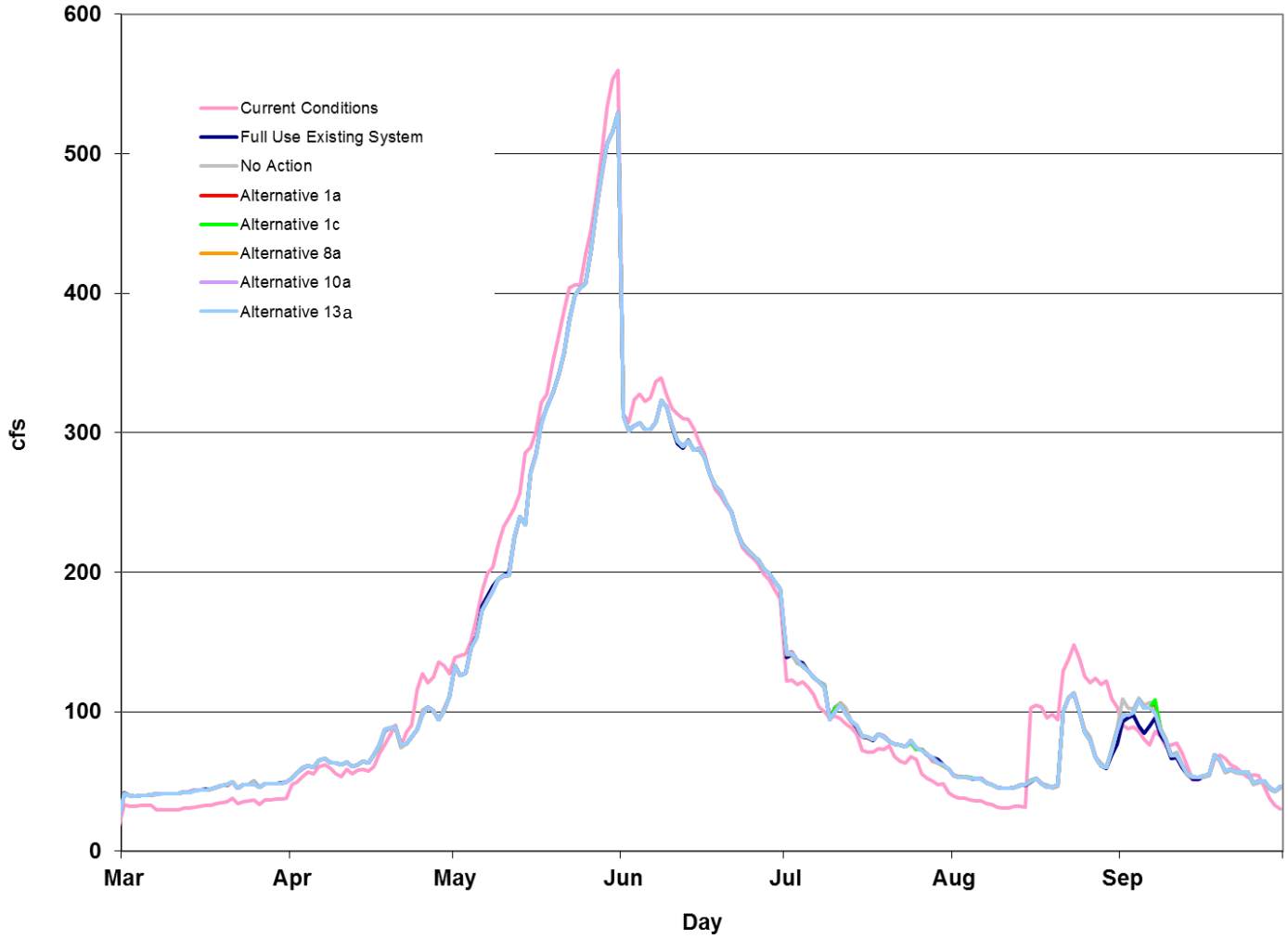


Figure H-4.101. Wolford Mountain Reservoir – Wet Year Average Daily Flow (cfs)

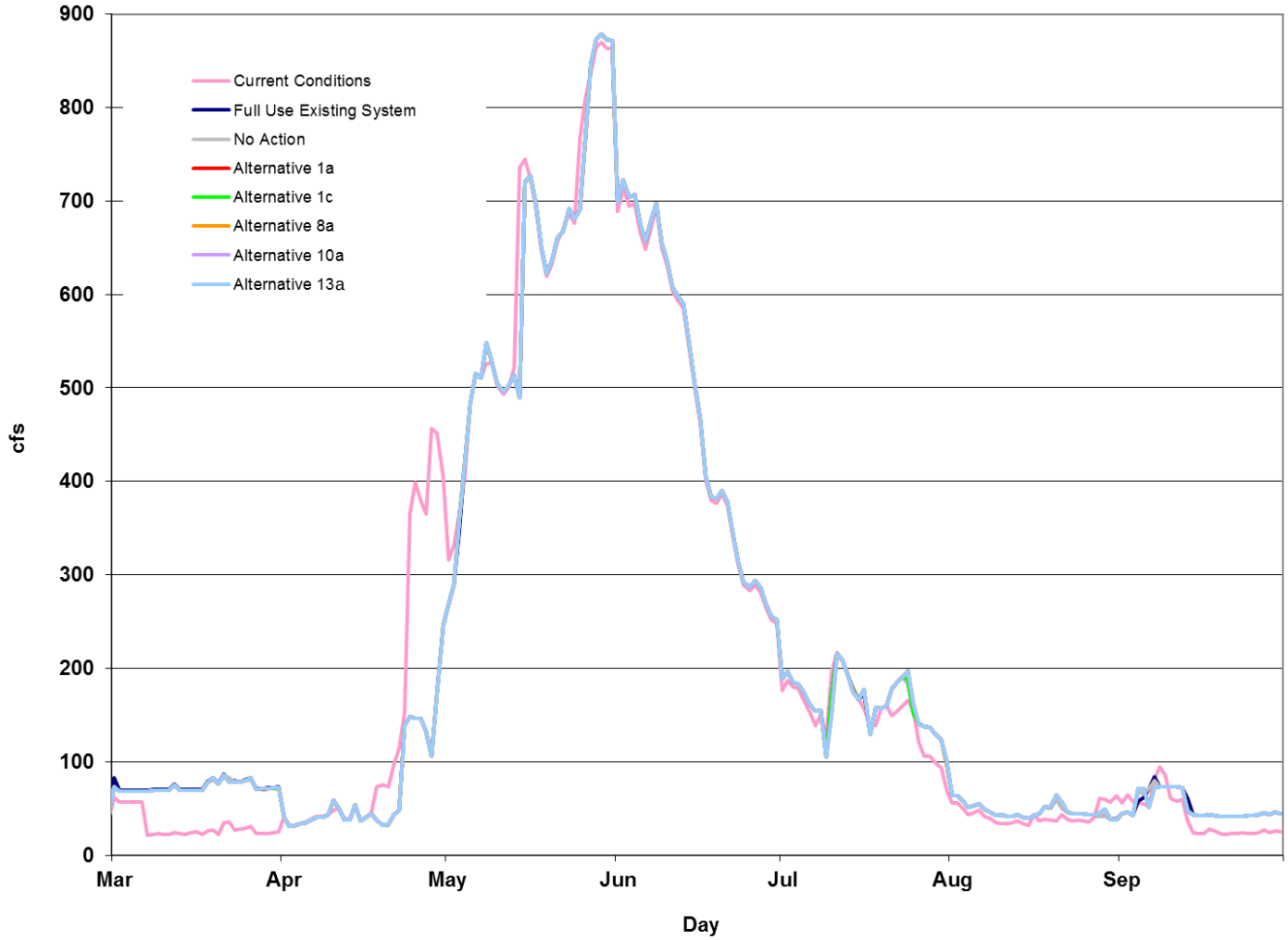


Figure H-4.102. Wolford Mountain Reservoir – Dry Year Average Daily Flow (cfs)

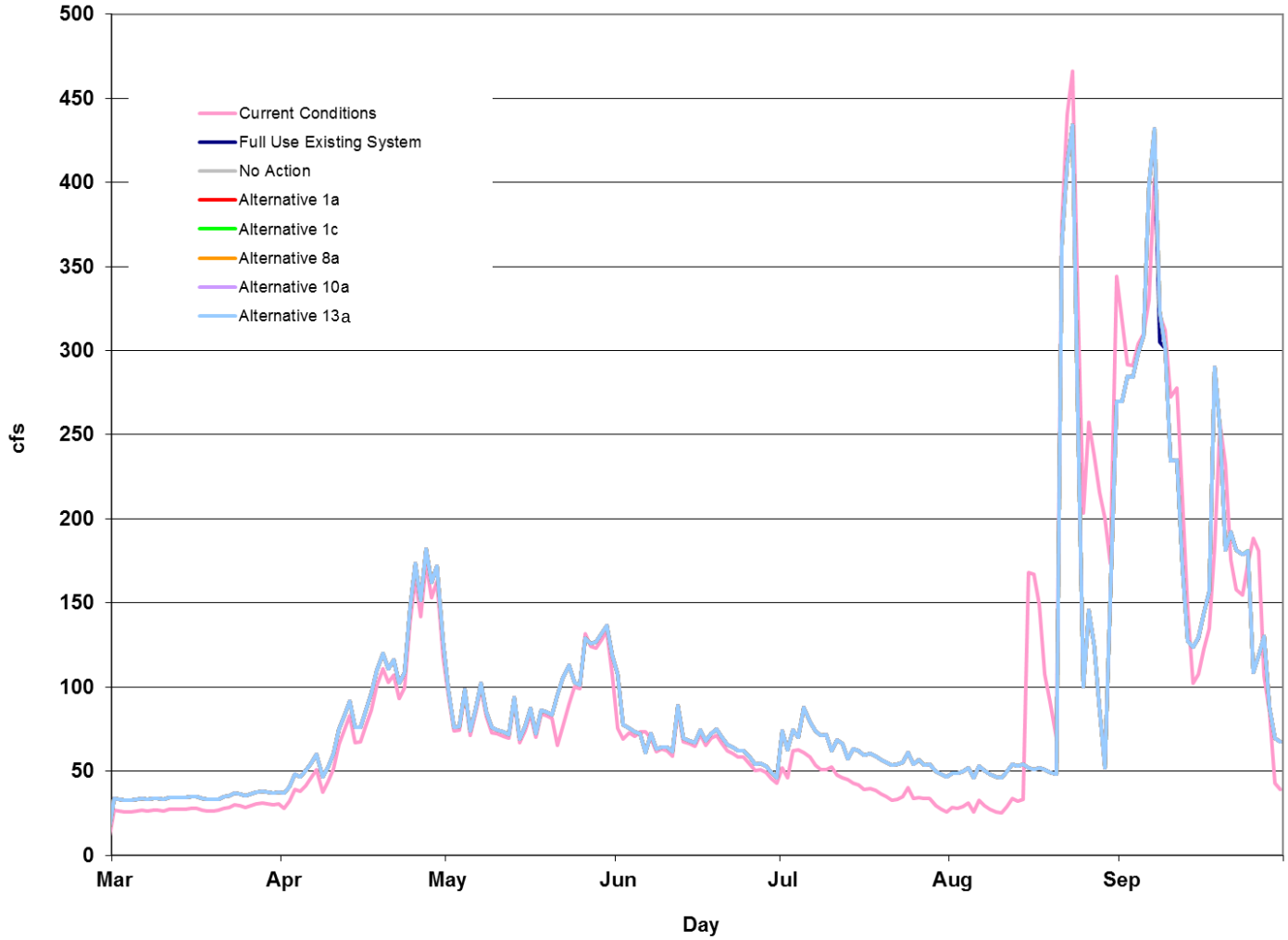


Figure H-4.103. Roberts Tunnel – Average Daily Diversion (cfs)

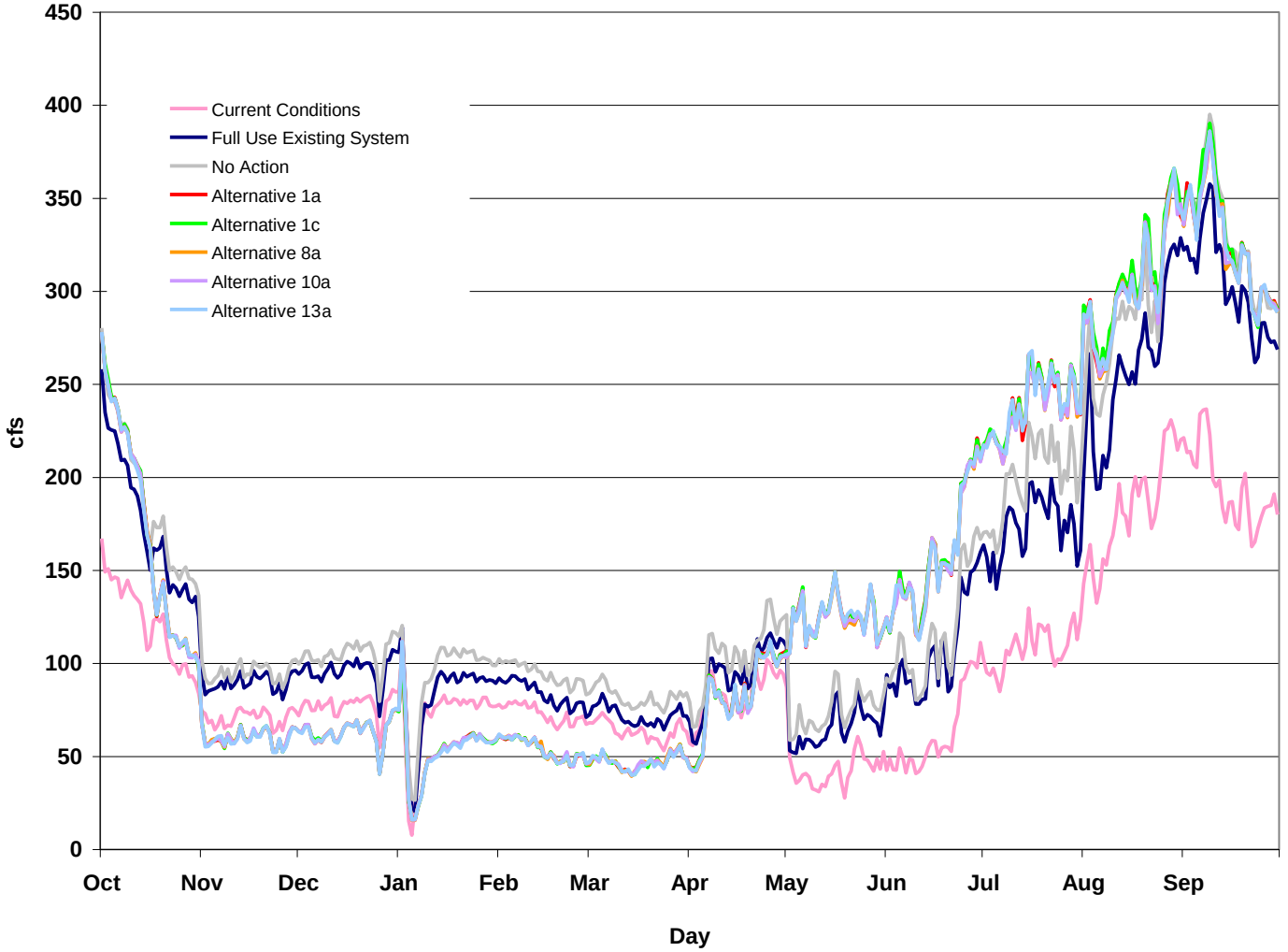


Figure H-4.104. Roberts Tunnel – Wet Year Average Daily Diversion (cfs)

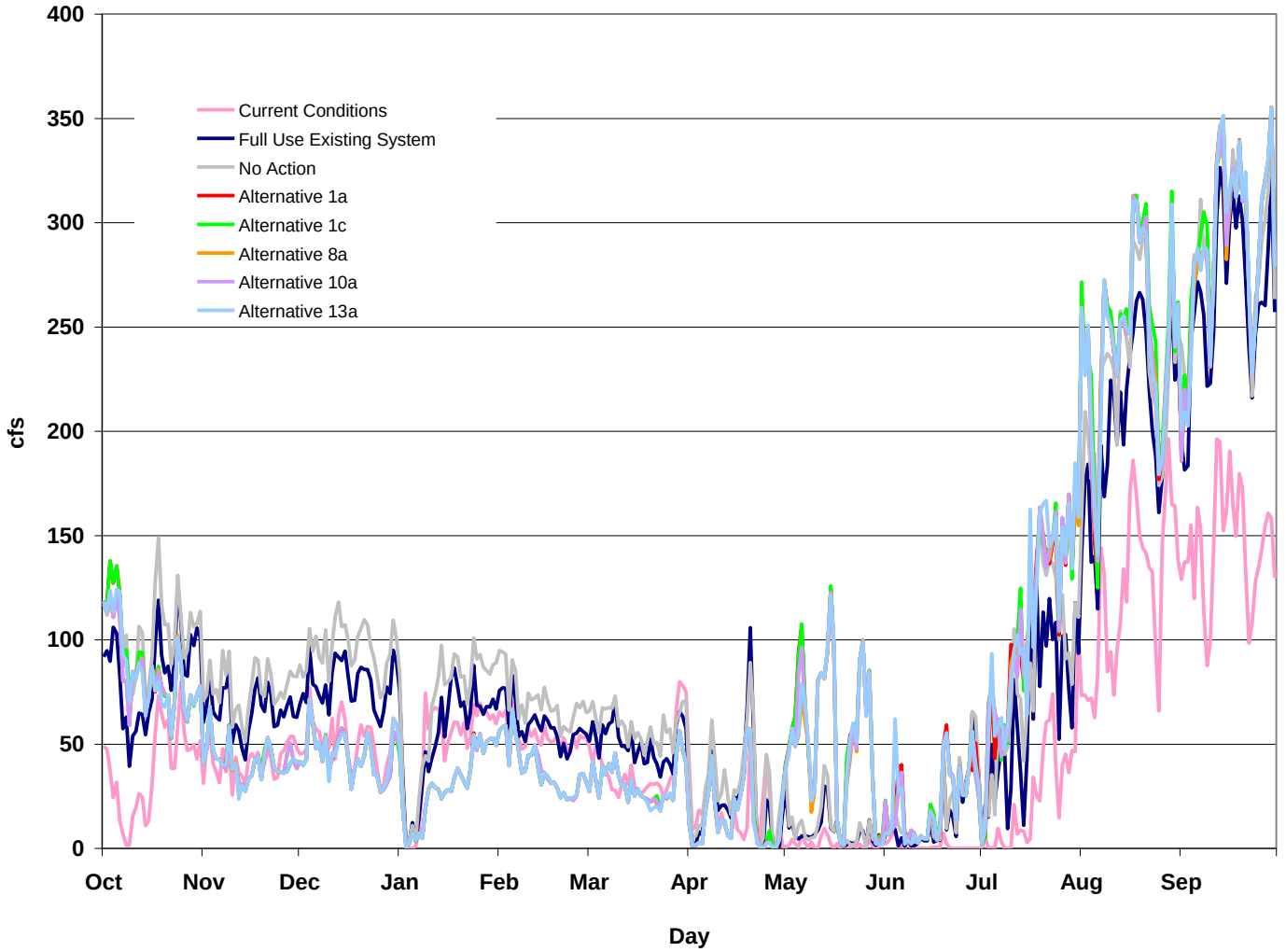


Figure H-4.105. Roberts Tunnel – Dry Year Average Daily Diversion (cfs)

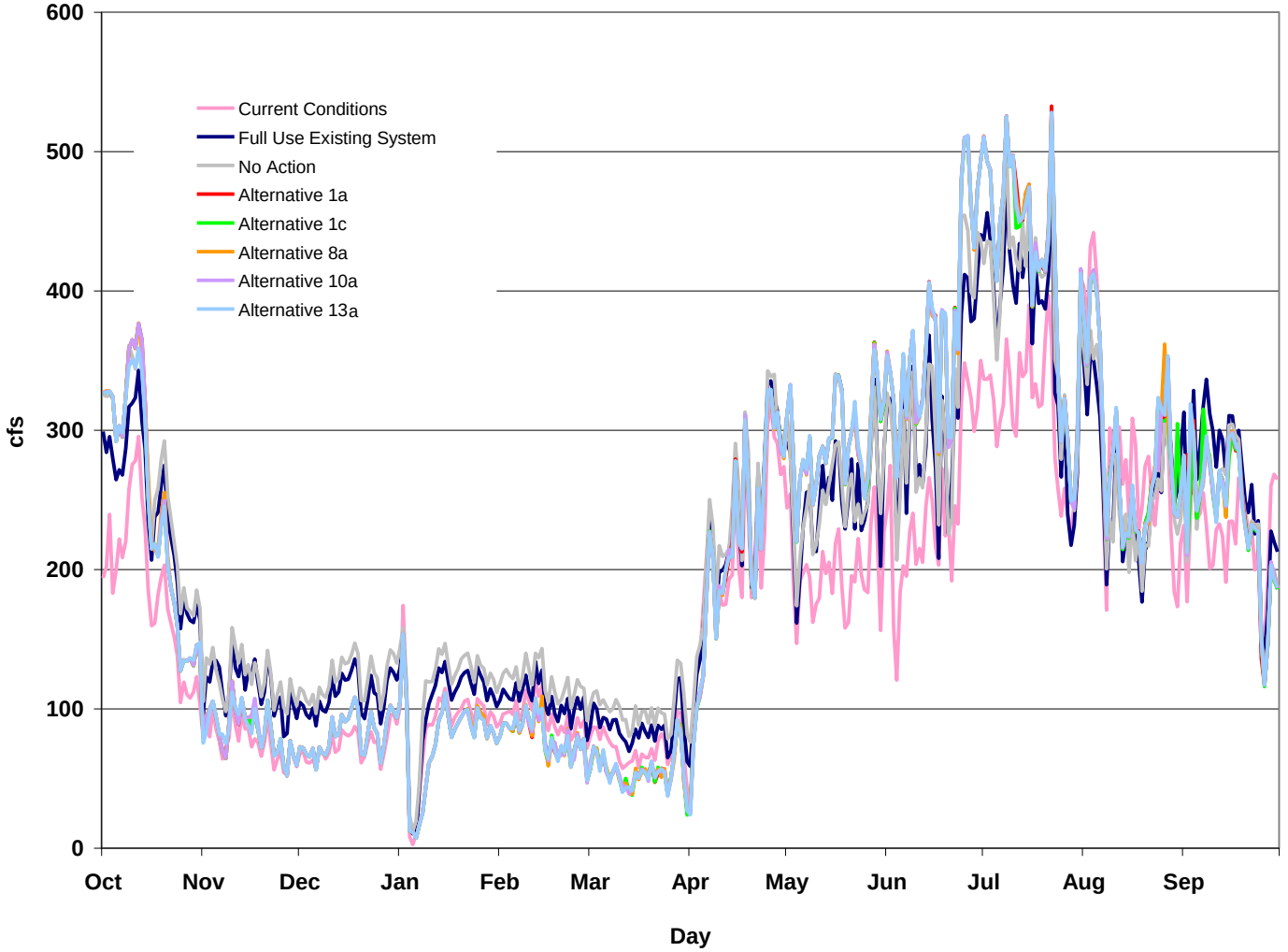


Figure H-4.106. Dillon Reservoir – Average Daily Outflow (cfs)

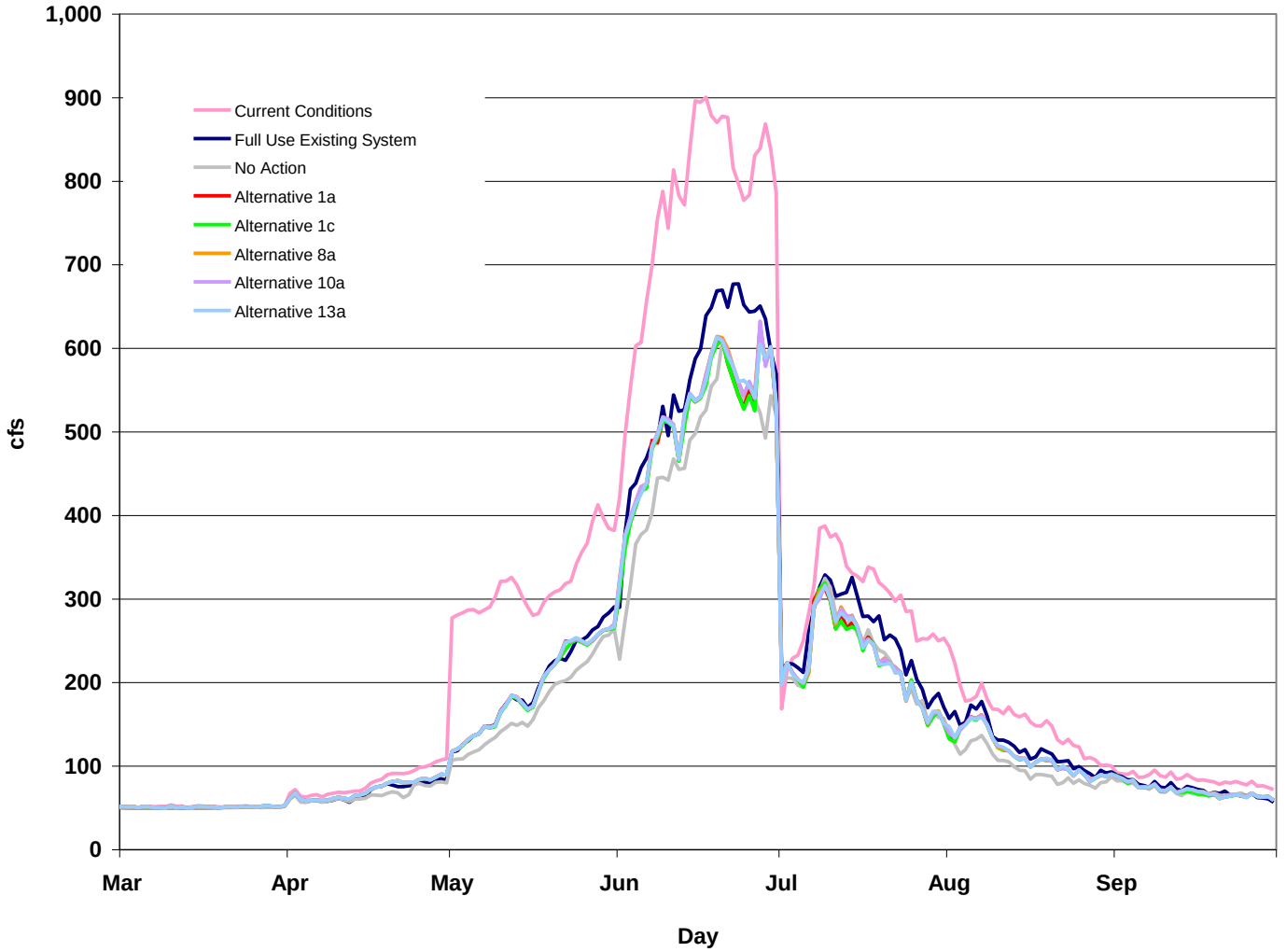


Figure H-4.107. Dillon Reservoir – Wet Year Average Daily Outflow (cfs)

Figure H-4.108. Dillon Reservoir – Dry Year Average Daily Outflow (cfs)

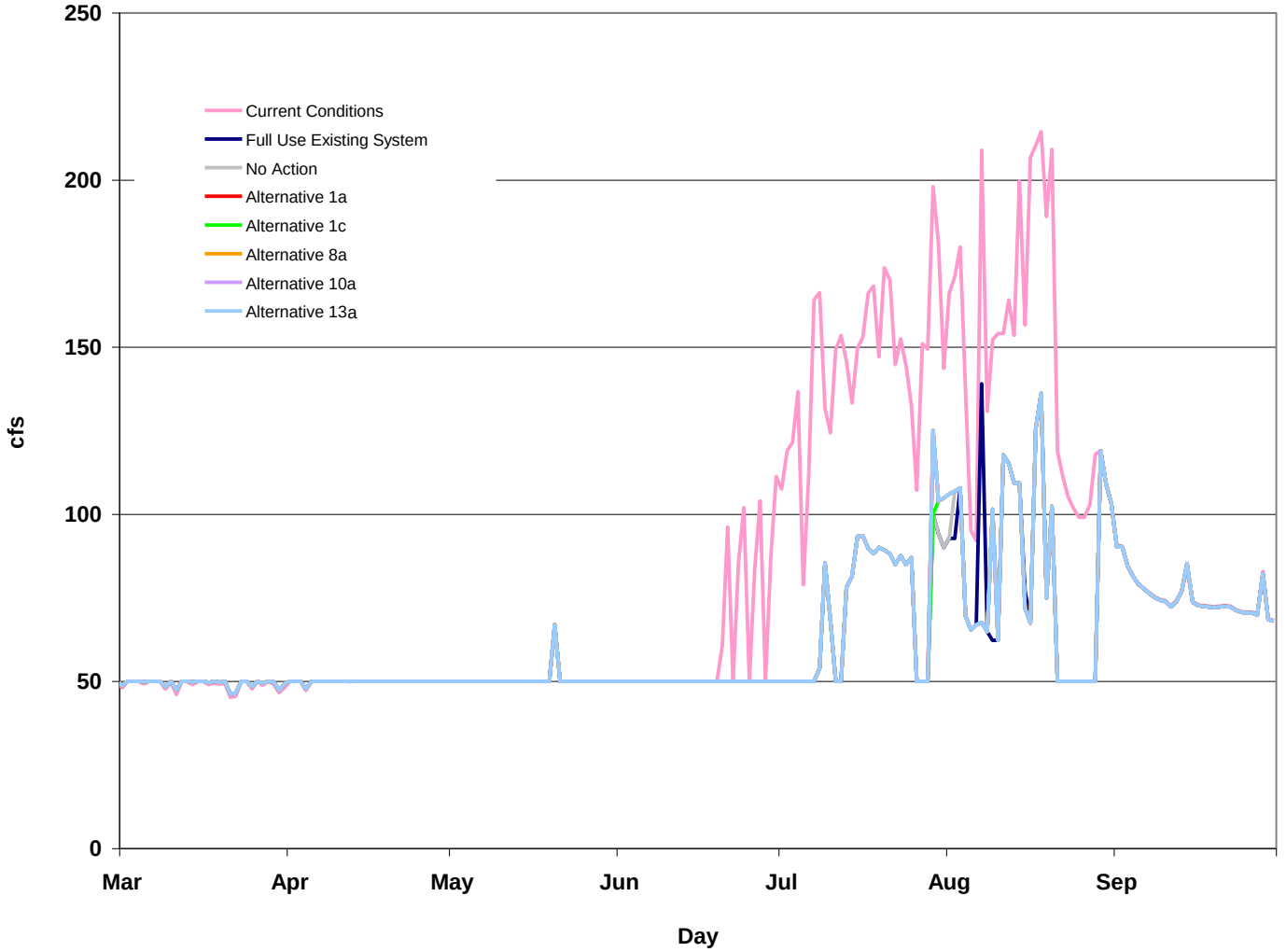


Figure H-4.109. Green Mountain Reservoir – Average Daily Outflow (cfs)

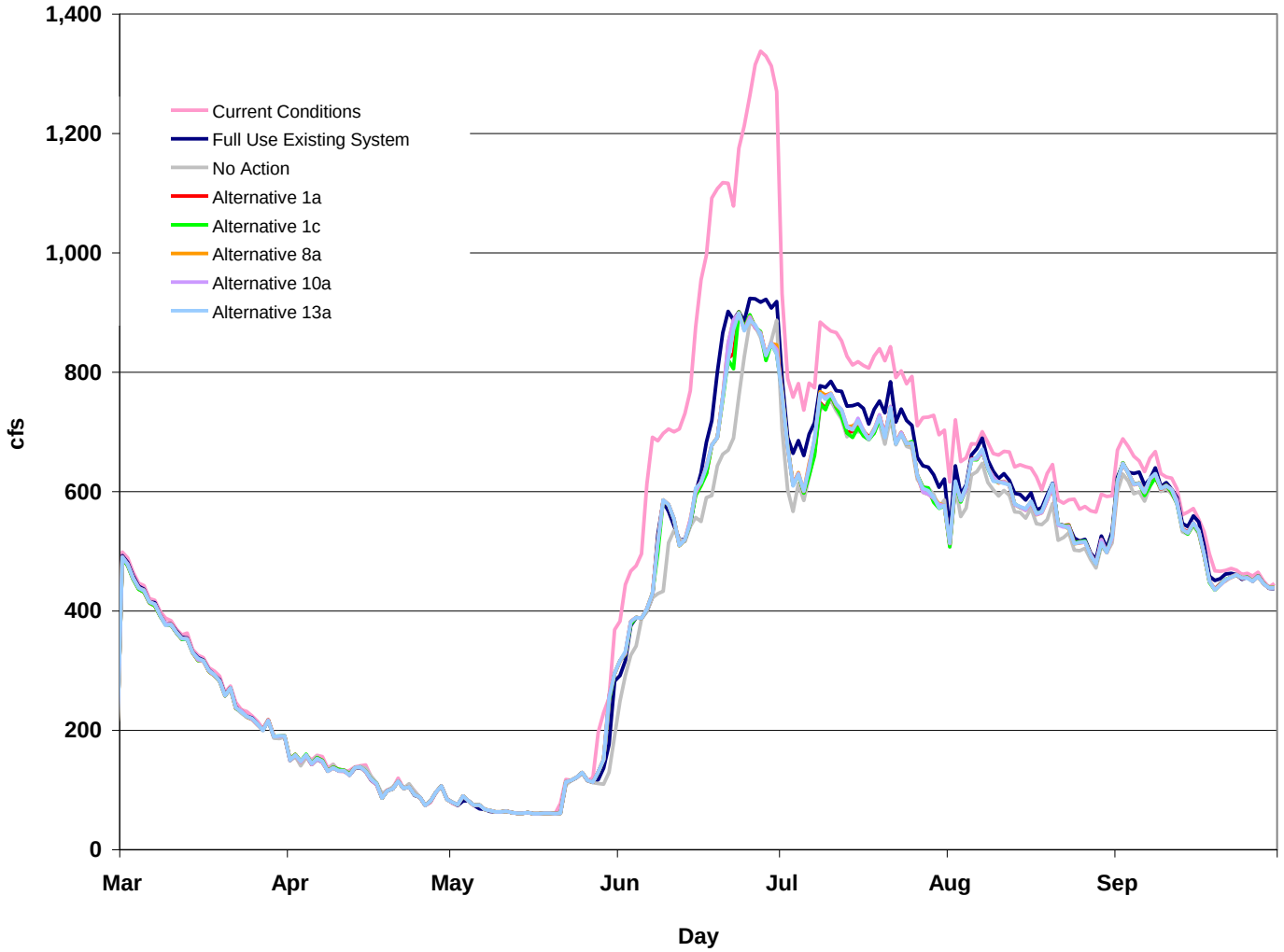


Figure H-4.110. Green Mountain Reservoir – Wet Year Average Daily Outflow (cfs)

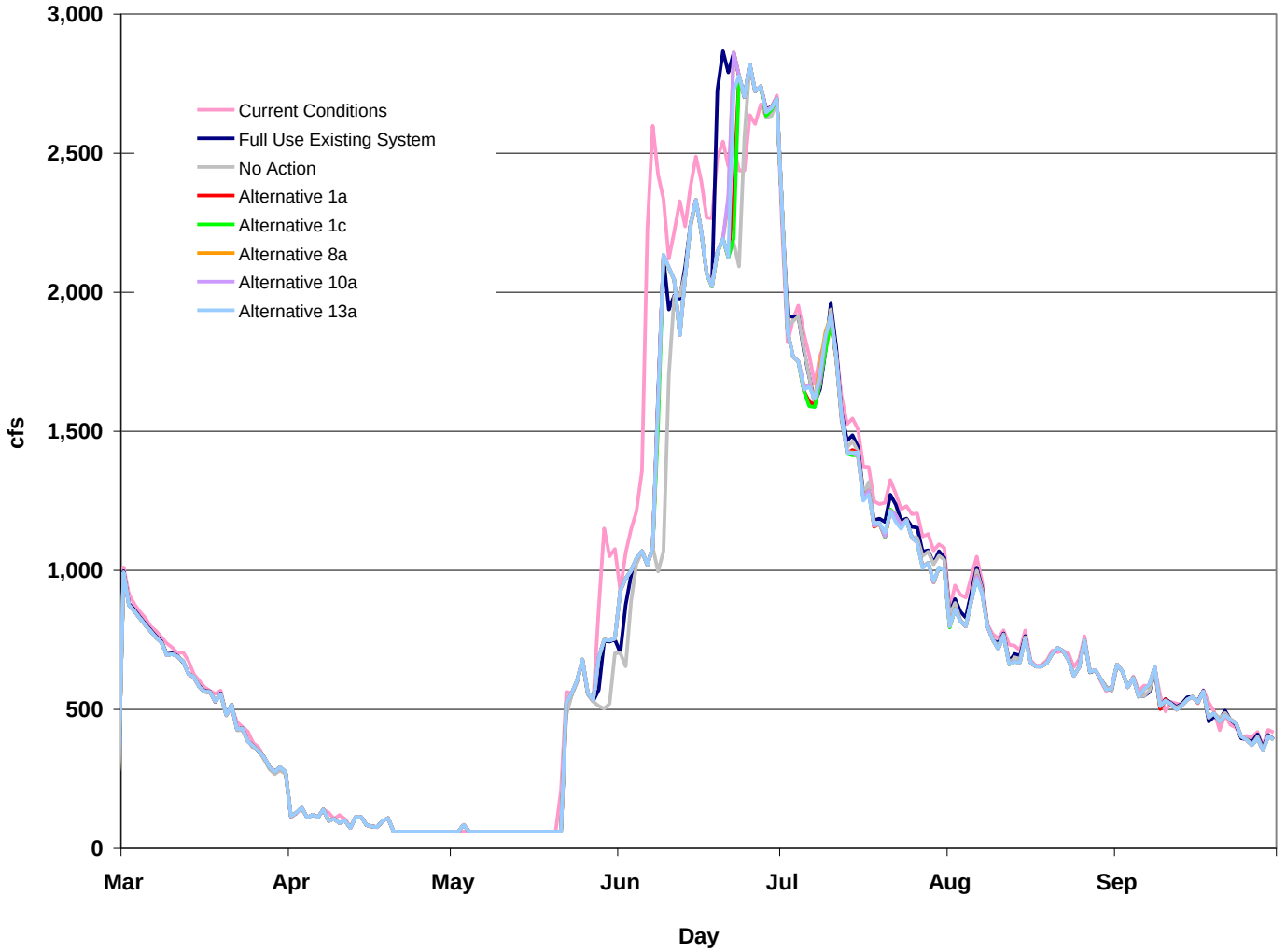


Figure H-4.111. Green Mountain Reservoir – Dry Year Average Daily Outflow (cfs)

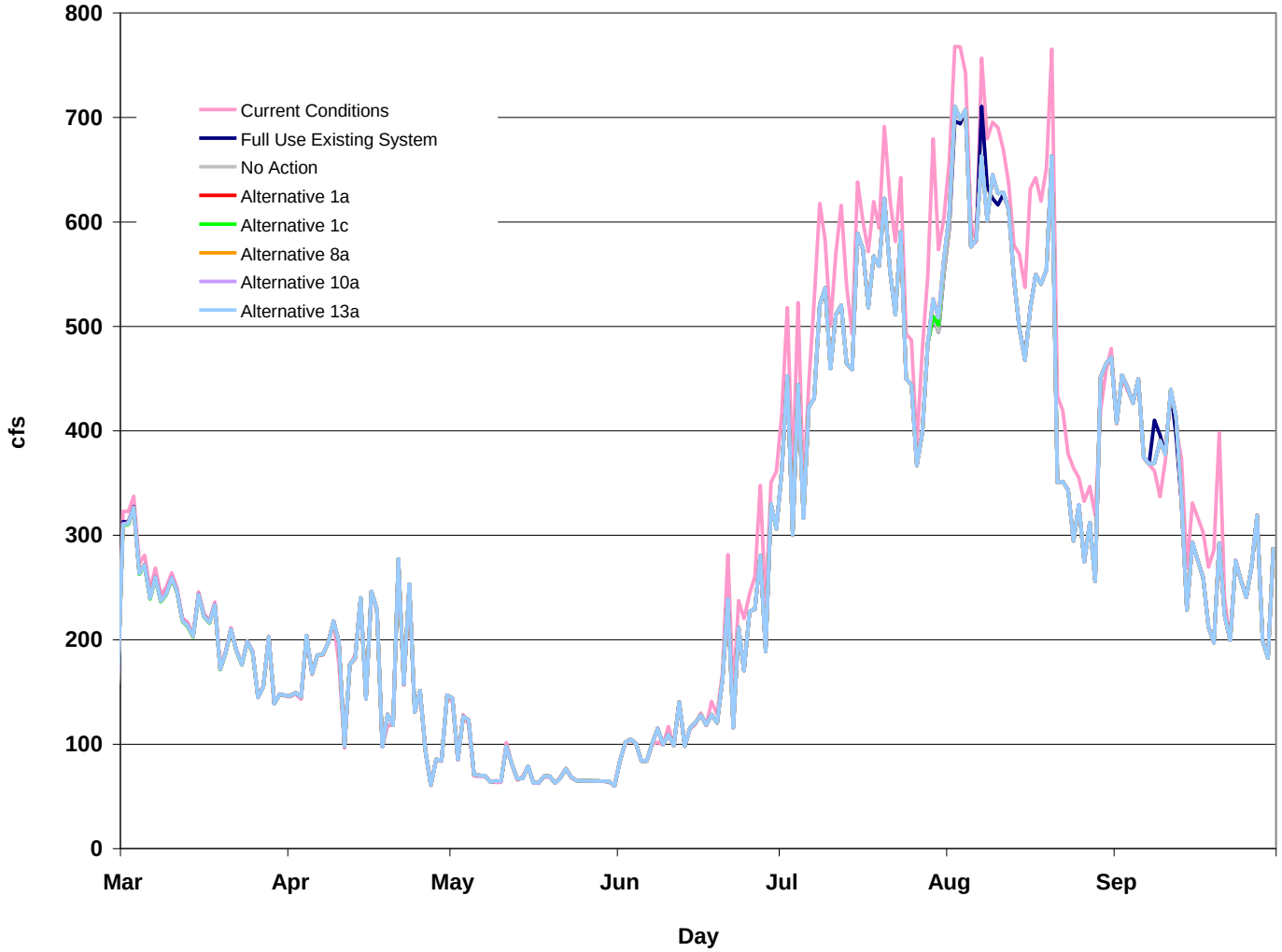


Figure H-4.112. South Boulder Creek at Pinecliffe Gage – Average Daily Flow (cfs)

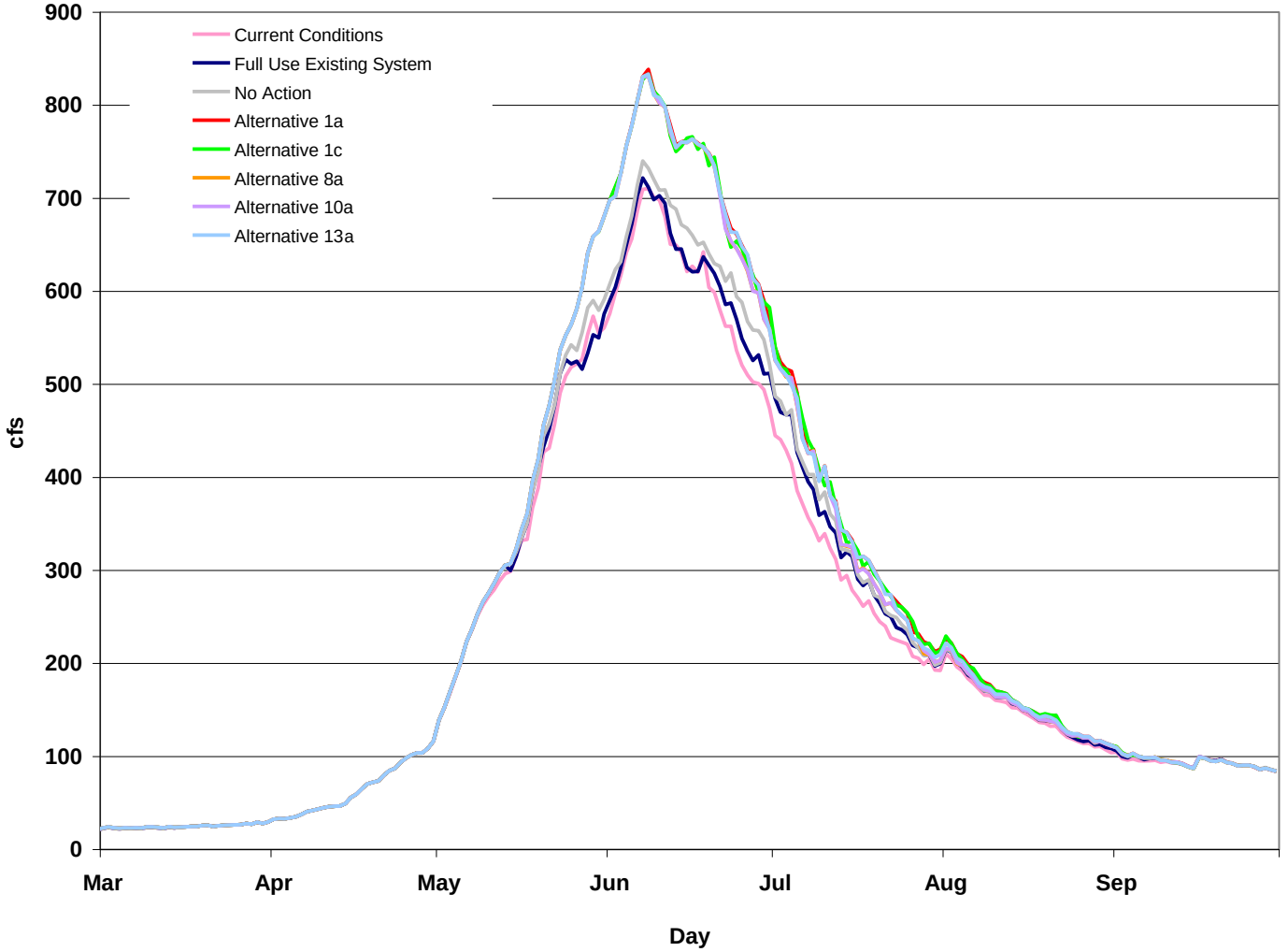


Figure H-4.113. South Boulder Creek at Pinecliffe Gage – Wet Year Average Daily Flow (cfs)

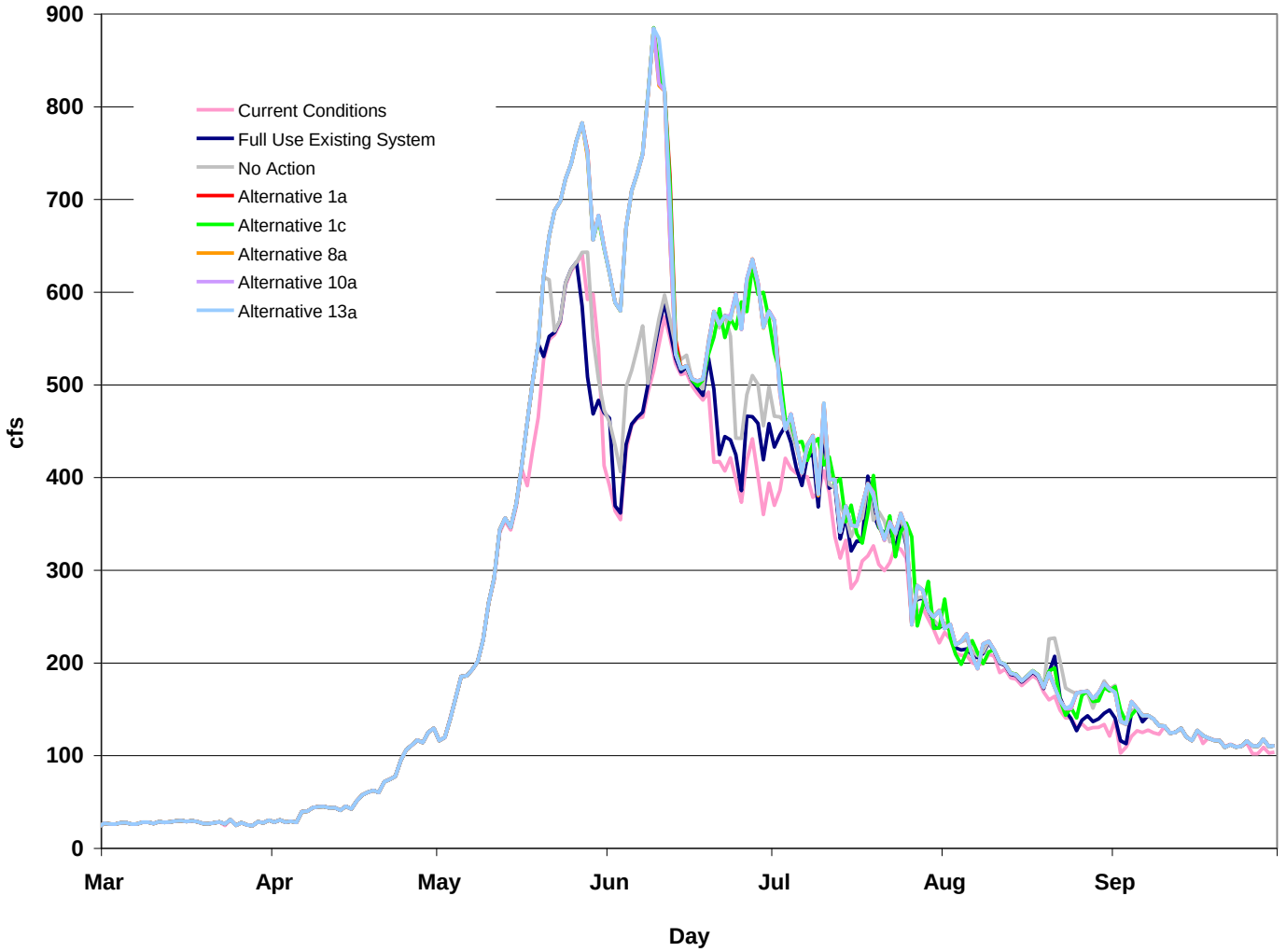


Figure H-4.114. South Boulder Creek at Pinecliffe Gage – Dry Year Average Daily Flow (cfs)

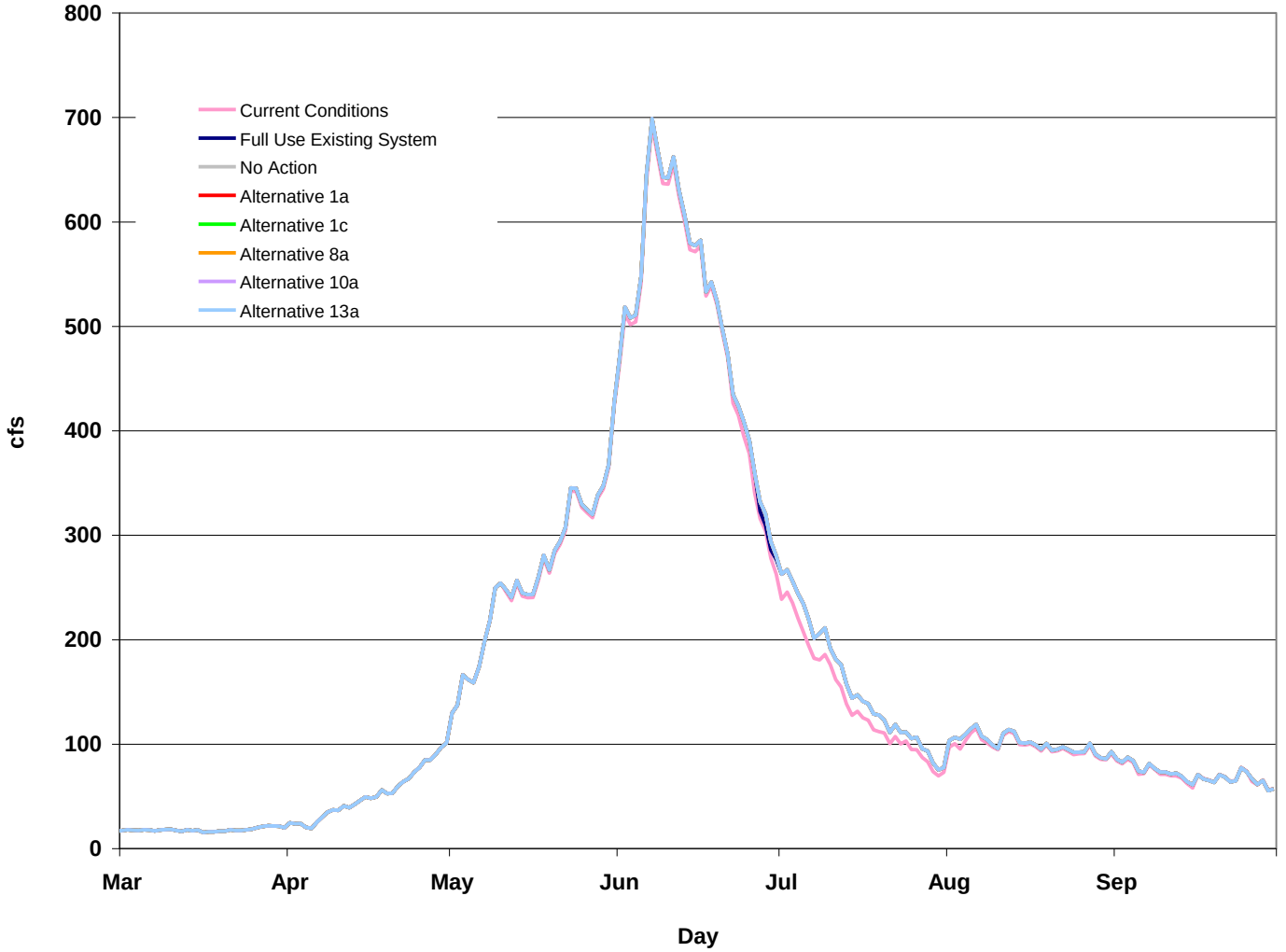
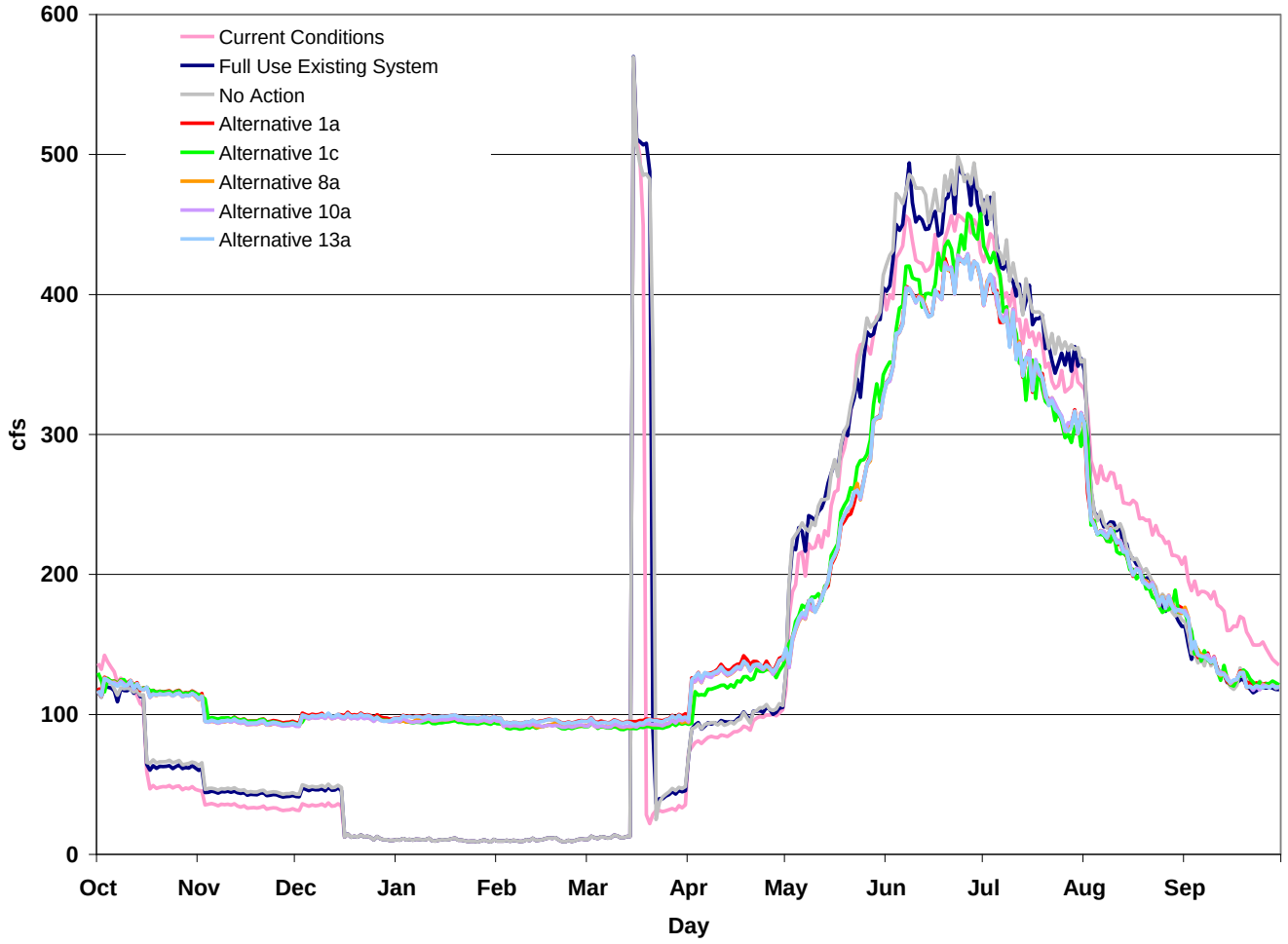
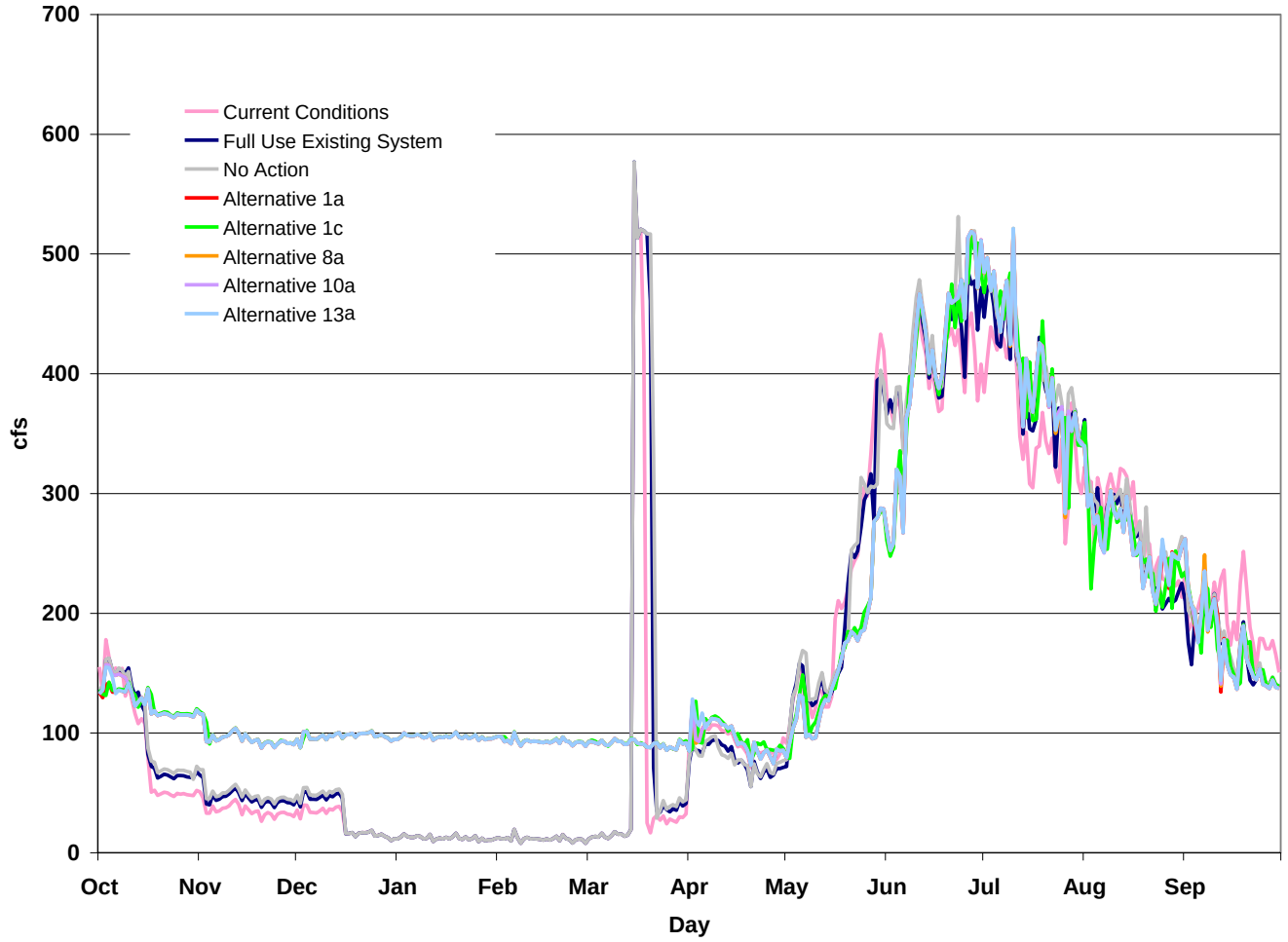


Figure H-4.115. Gross Reservoir – Average Daily Outflow (cfs)



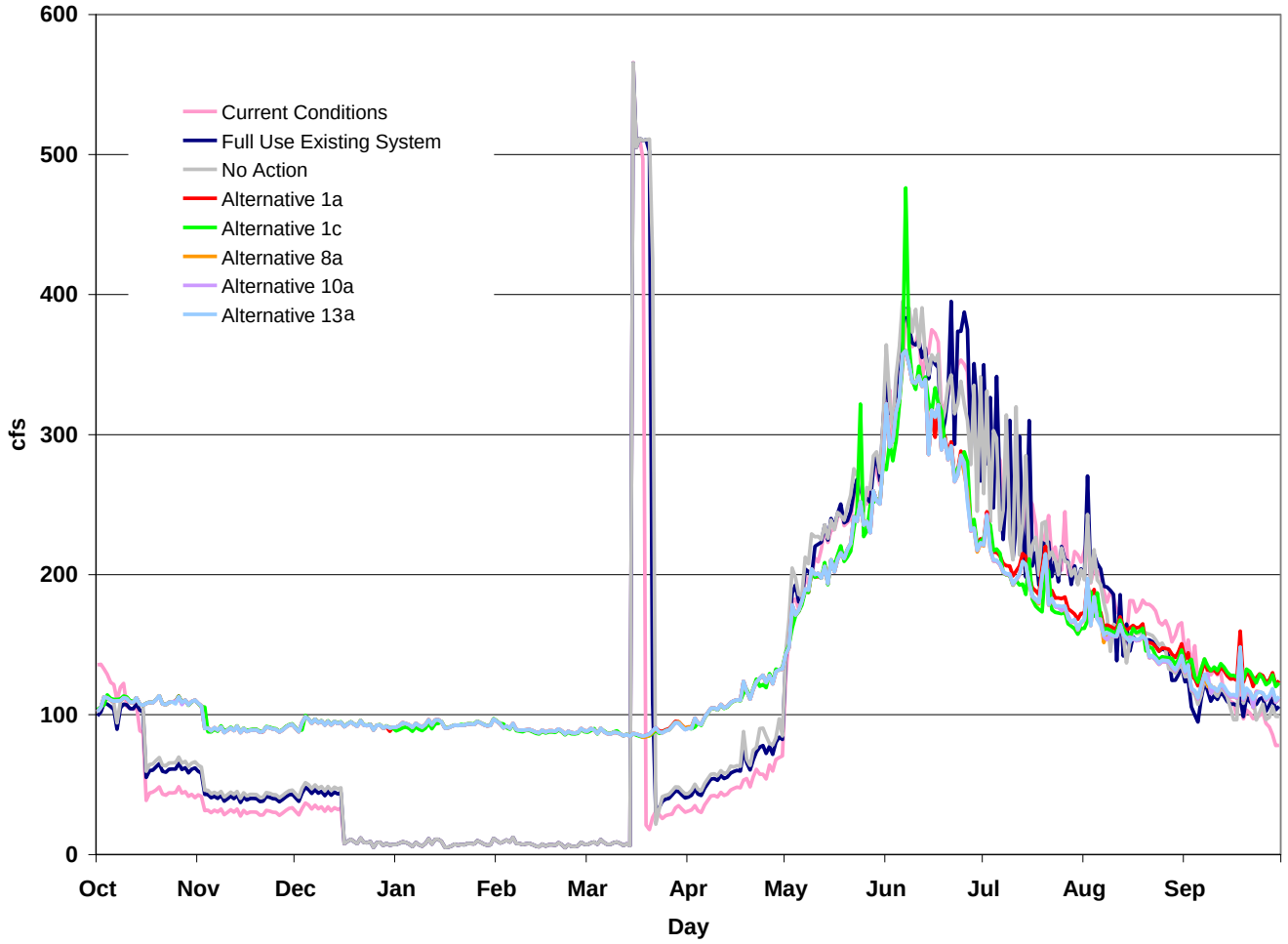
*Although the model shows a large release of water from Gross Reservoir to Ralston Reservoir in late March under typical operations, this release would be spread out over several weeks.

Figure H-4.116. Gross Reservoir – Wet Year Average Daily Outflow (cfs)



*Although the model shows a large release of water from Gross Reservoir to Ralston Reservoir in late March under typical operations, this release would be spread out over several weeks.

Figure H-4.117. Gross Reservoir – Dry Year Average Daily Outflow (cfs)



*Although the model shows a large release of water from Gross Reservoir to Ralston Reservoir in late March under typical operations, this release would be spread out over several weeks.

Figure H-4.118. South Boulder Creek near Eldorado Springs Gage – Average Daily Flow (cfs)

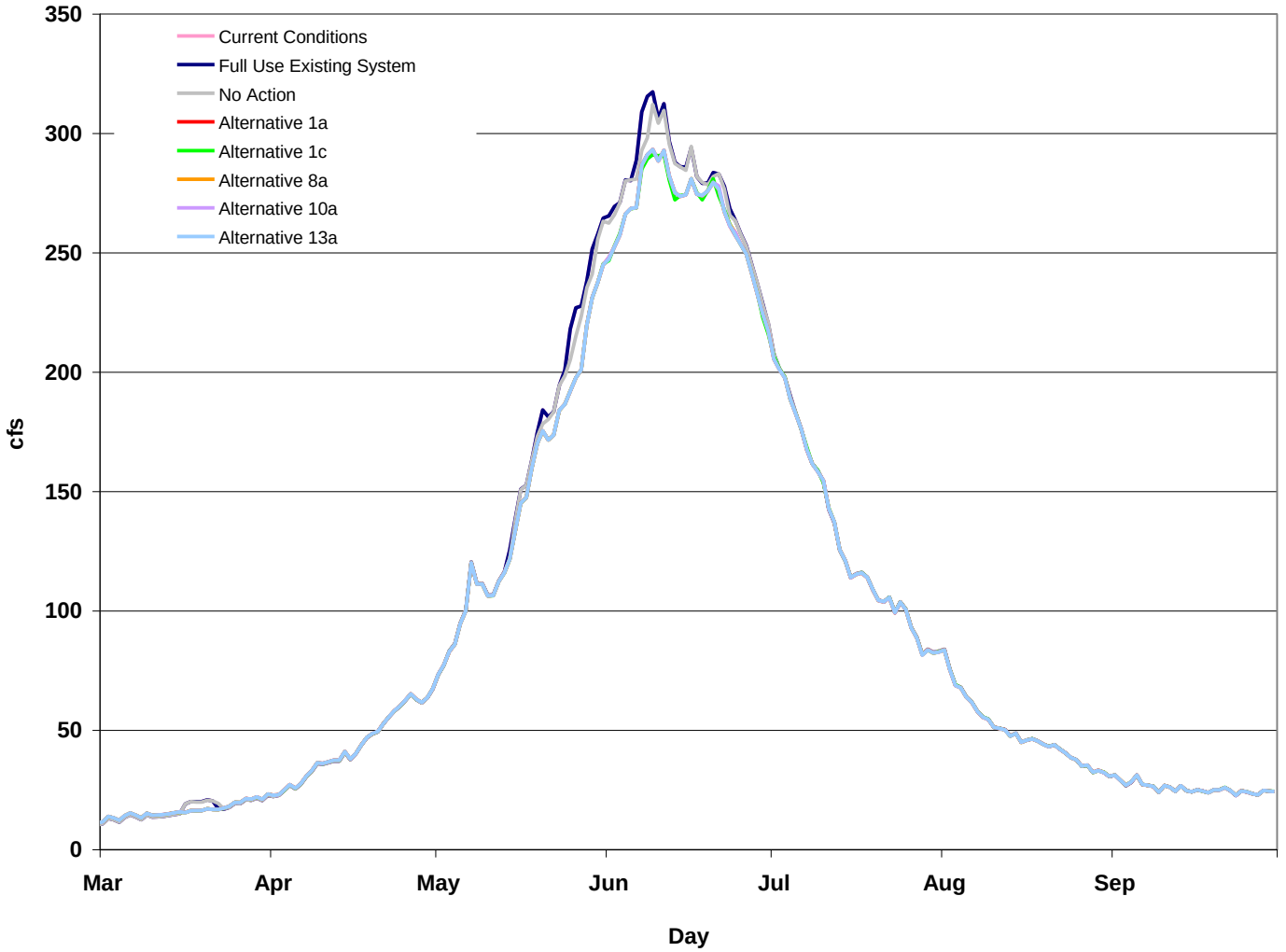


Figure H-4.119. South Boulder Creek near Eldorado Springs Gage – Wet Year Average Daily Flow (cfs)

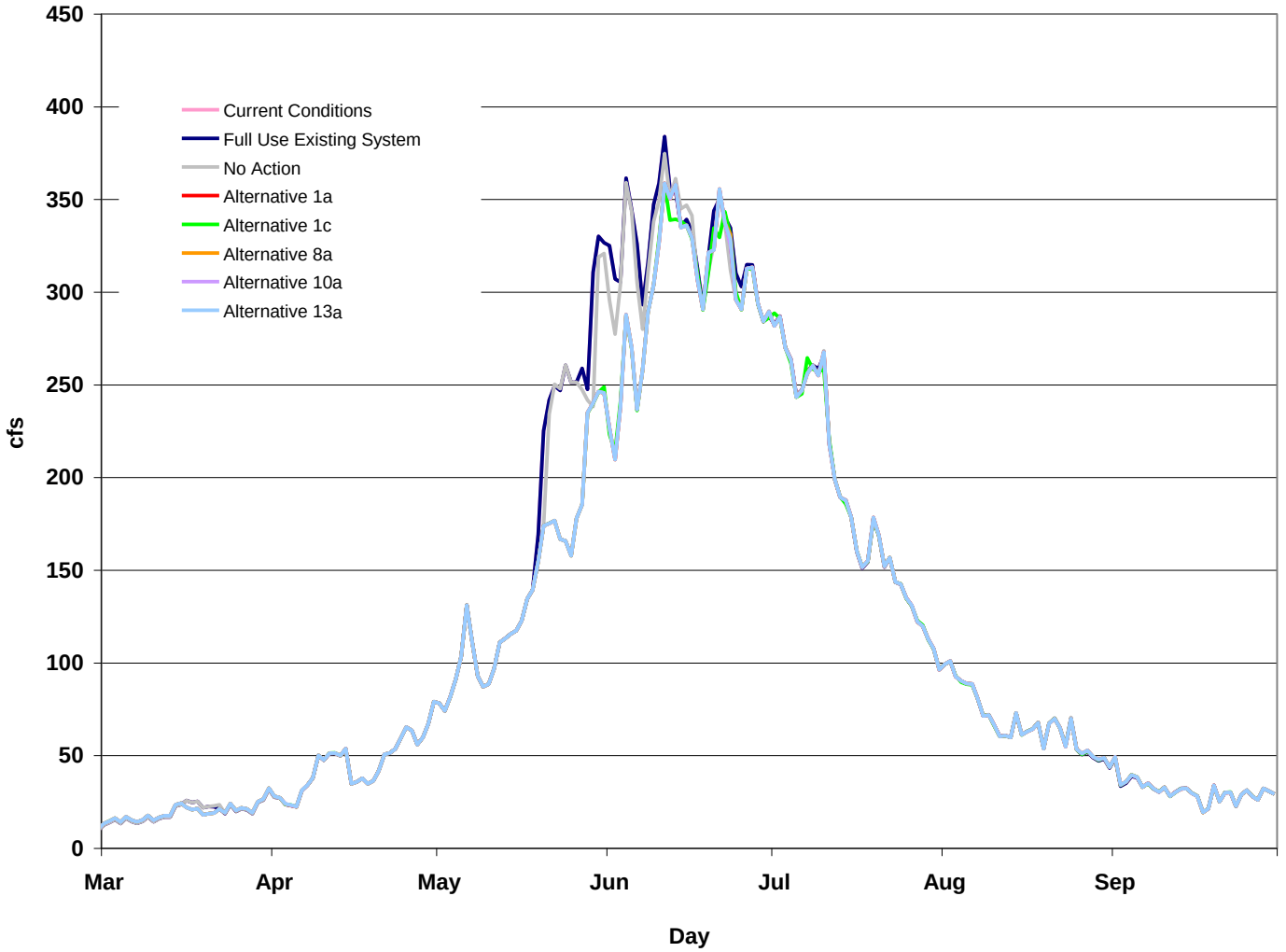


Figure H-4.120. South Boulder Creek near Eldorado Springs Gage – Dry Year Average Daily Flow (cfs)

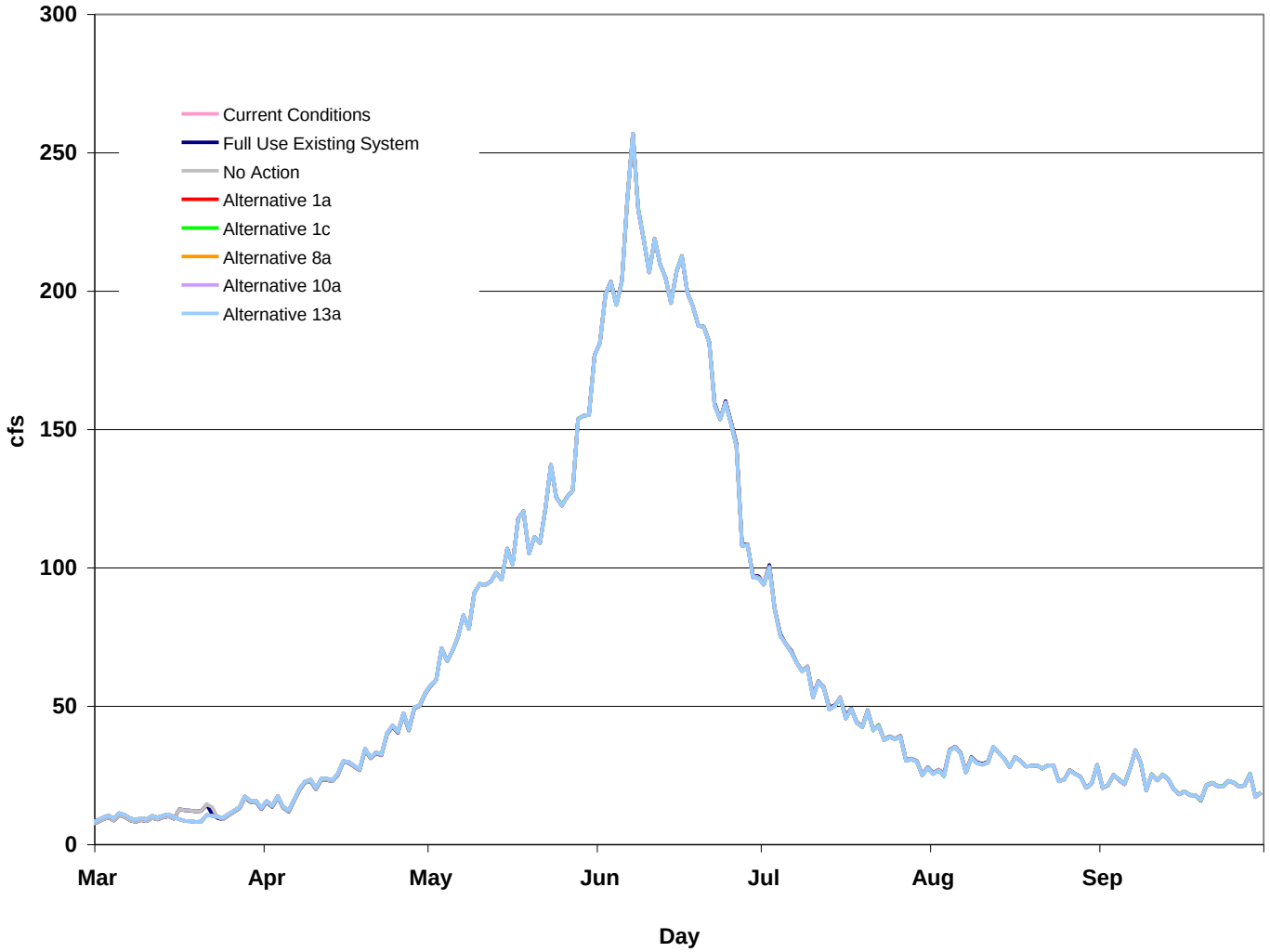


Figure H-4.121. North Fork South Platte River below Geneva Creek Gage – Average Daily Flow (cfs)

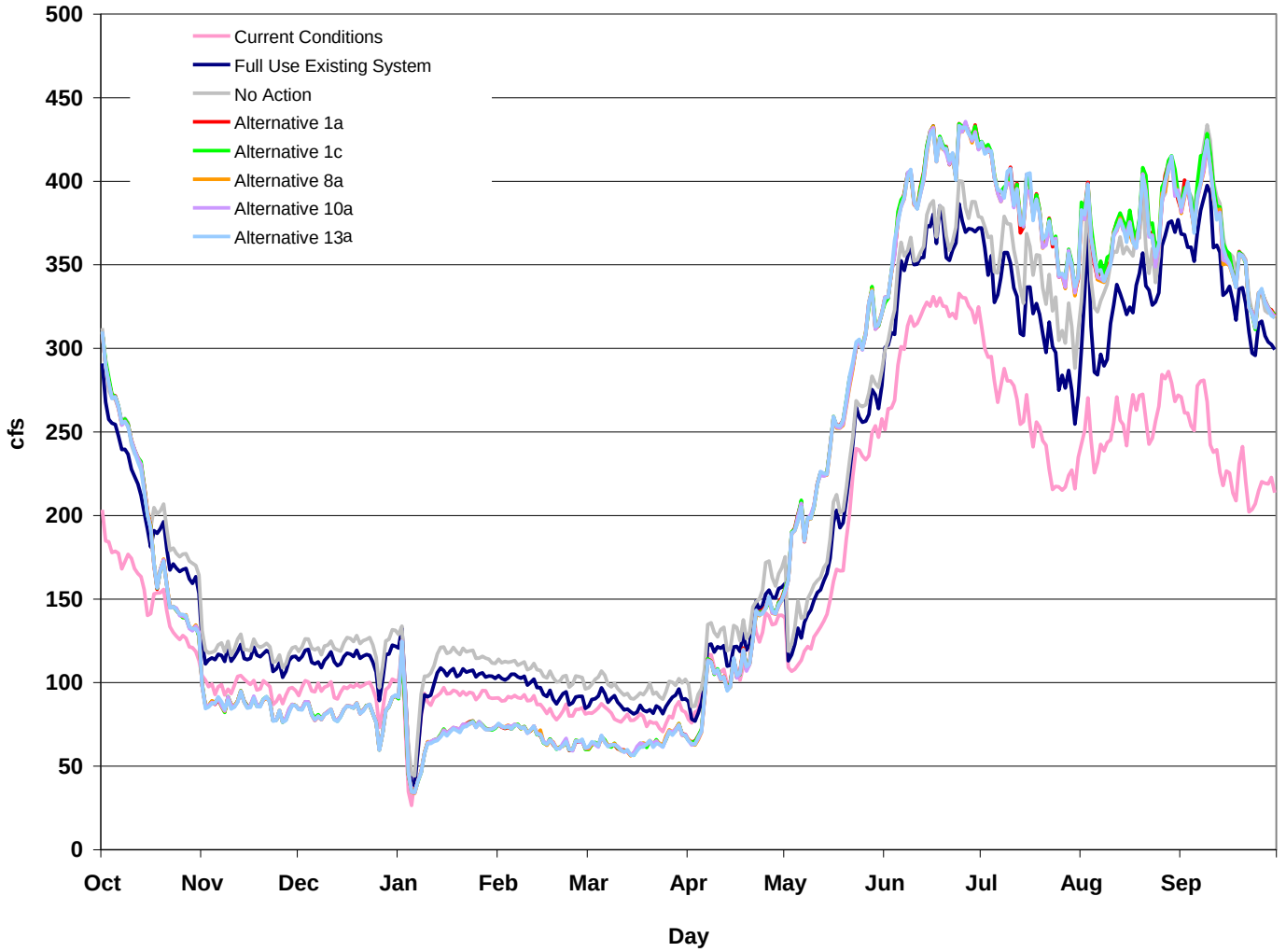


Figure H-4.122. North Fork South Platte River below Geneva Creek Gage – Wet Year Average Daily Flow (cfs)

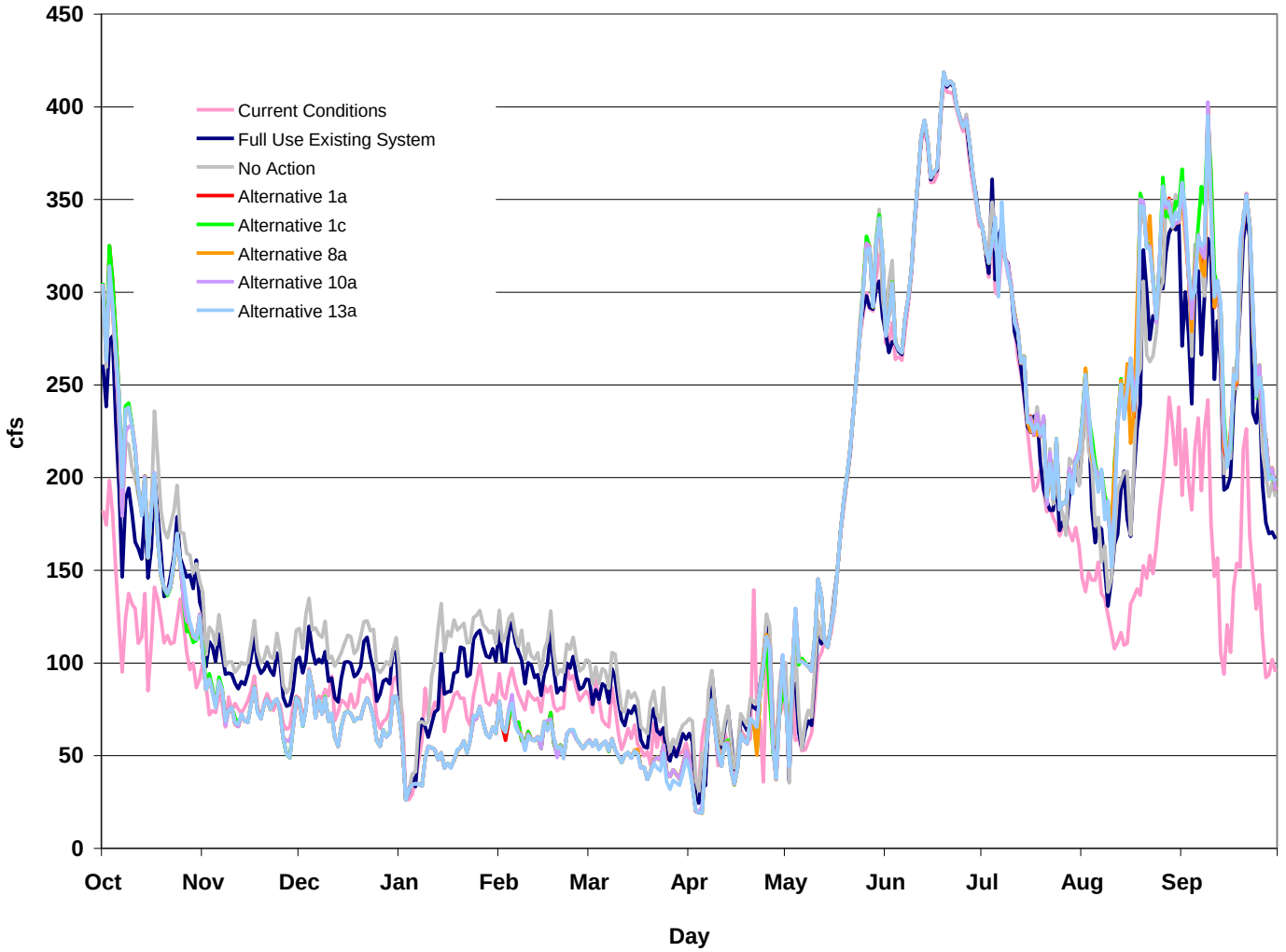


Figure H-4.123. North Fork South Platte River below Geneva Creek Gage – Dry Year Average Daily Flow (cfs)

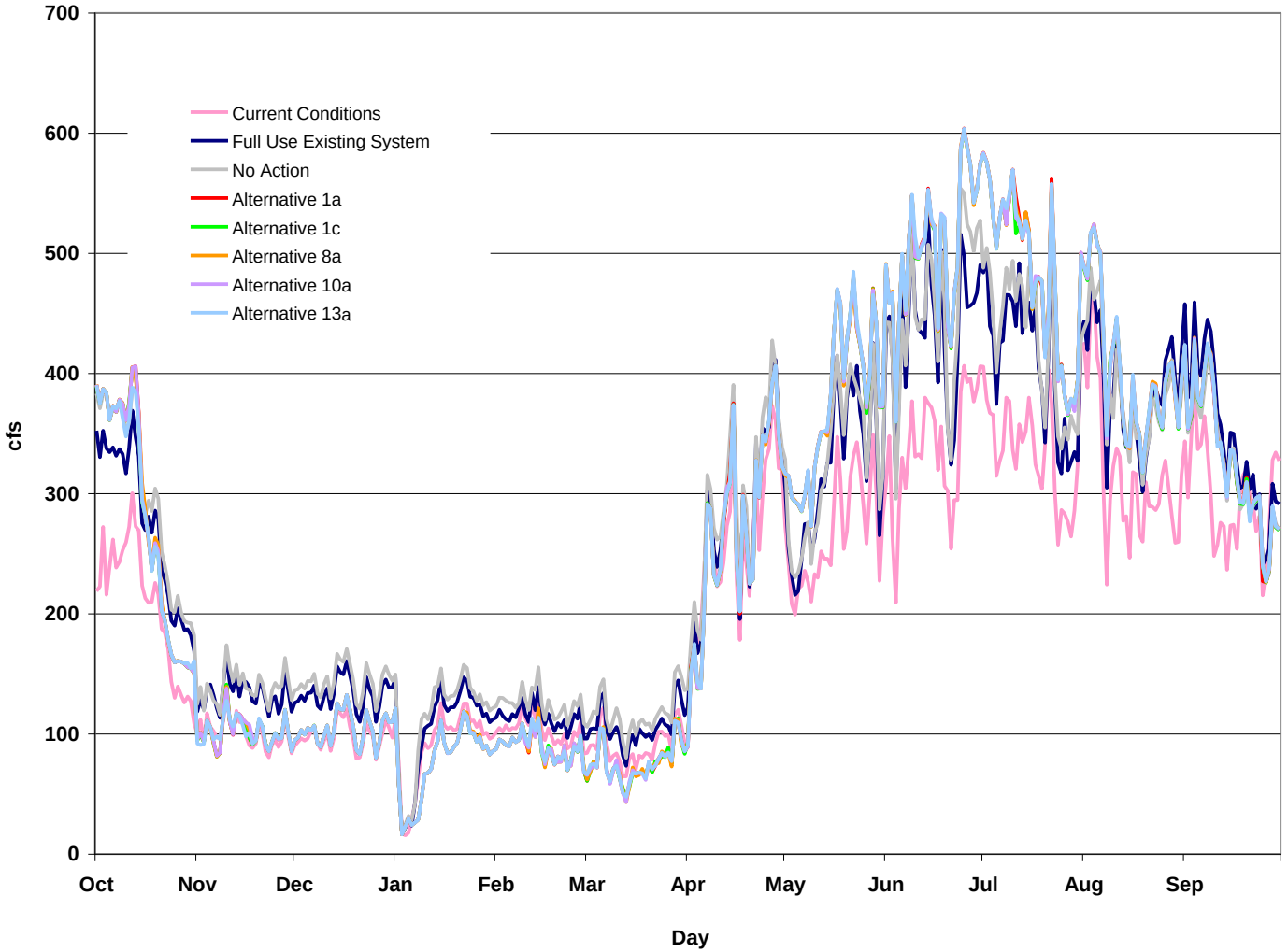
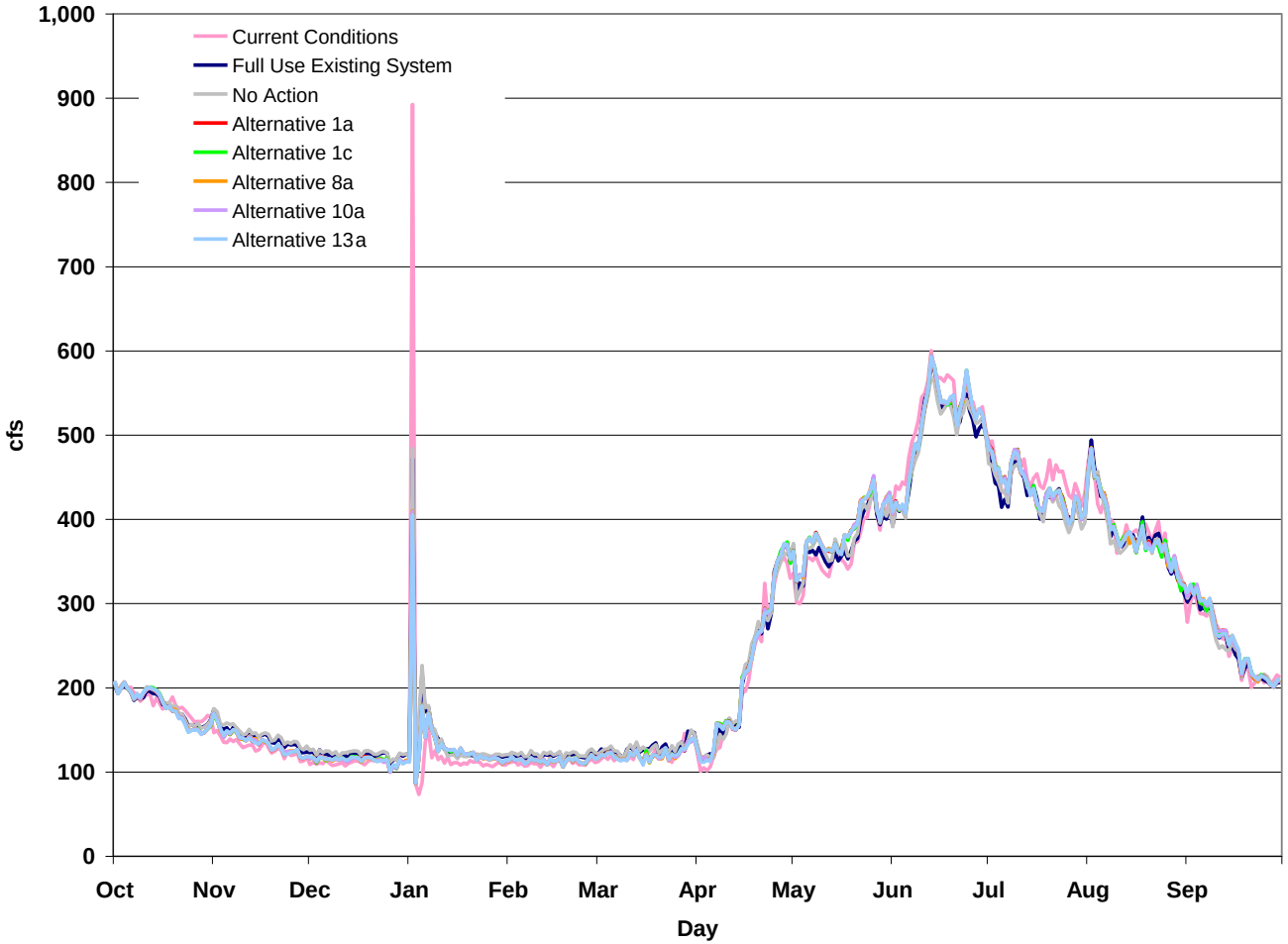
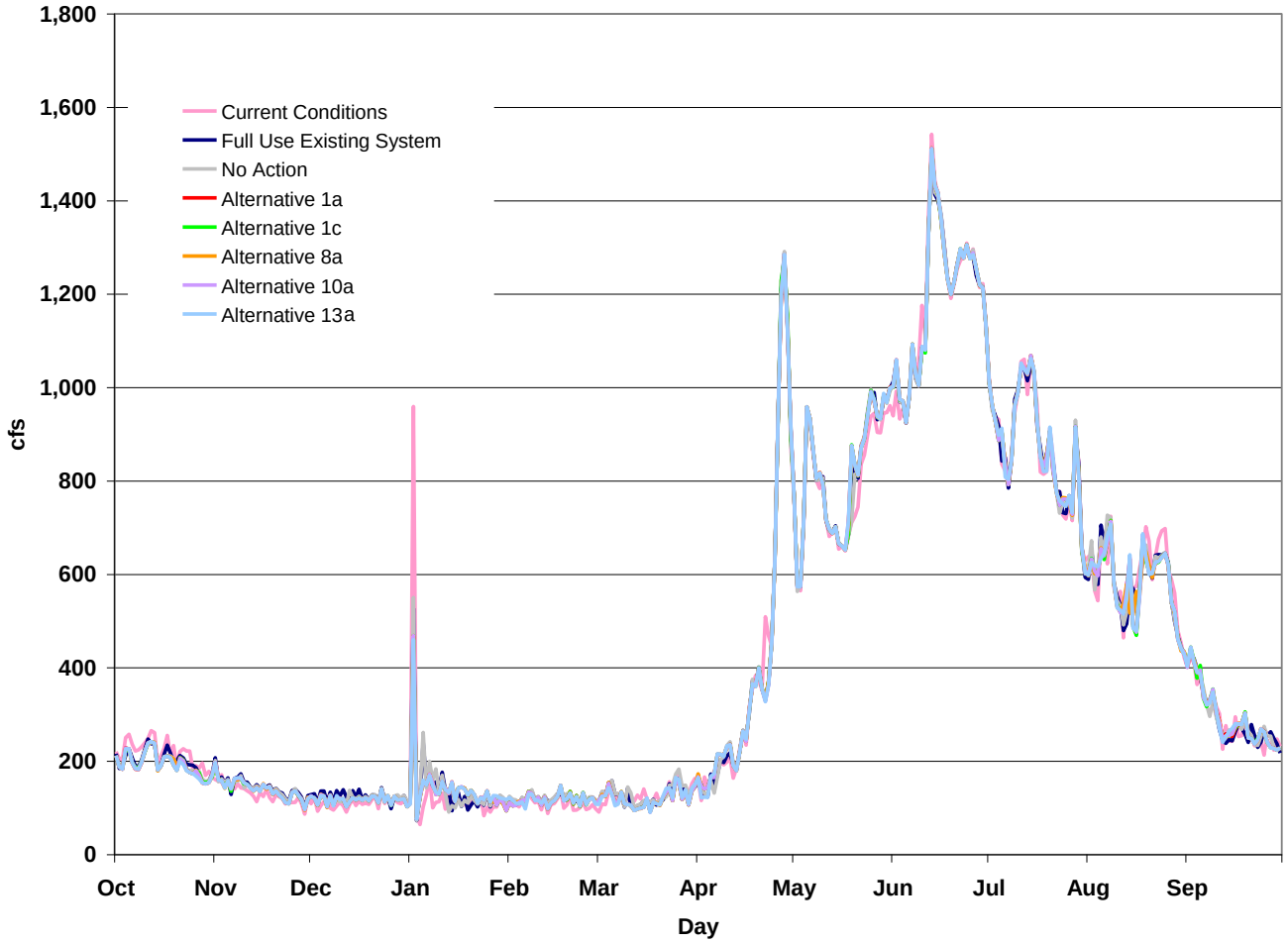


Figure H-4.124. Cheesman Reservoir – Average Daily Outflow (cfs)



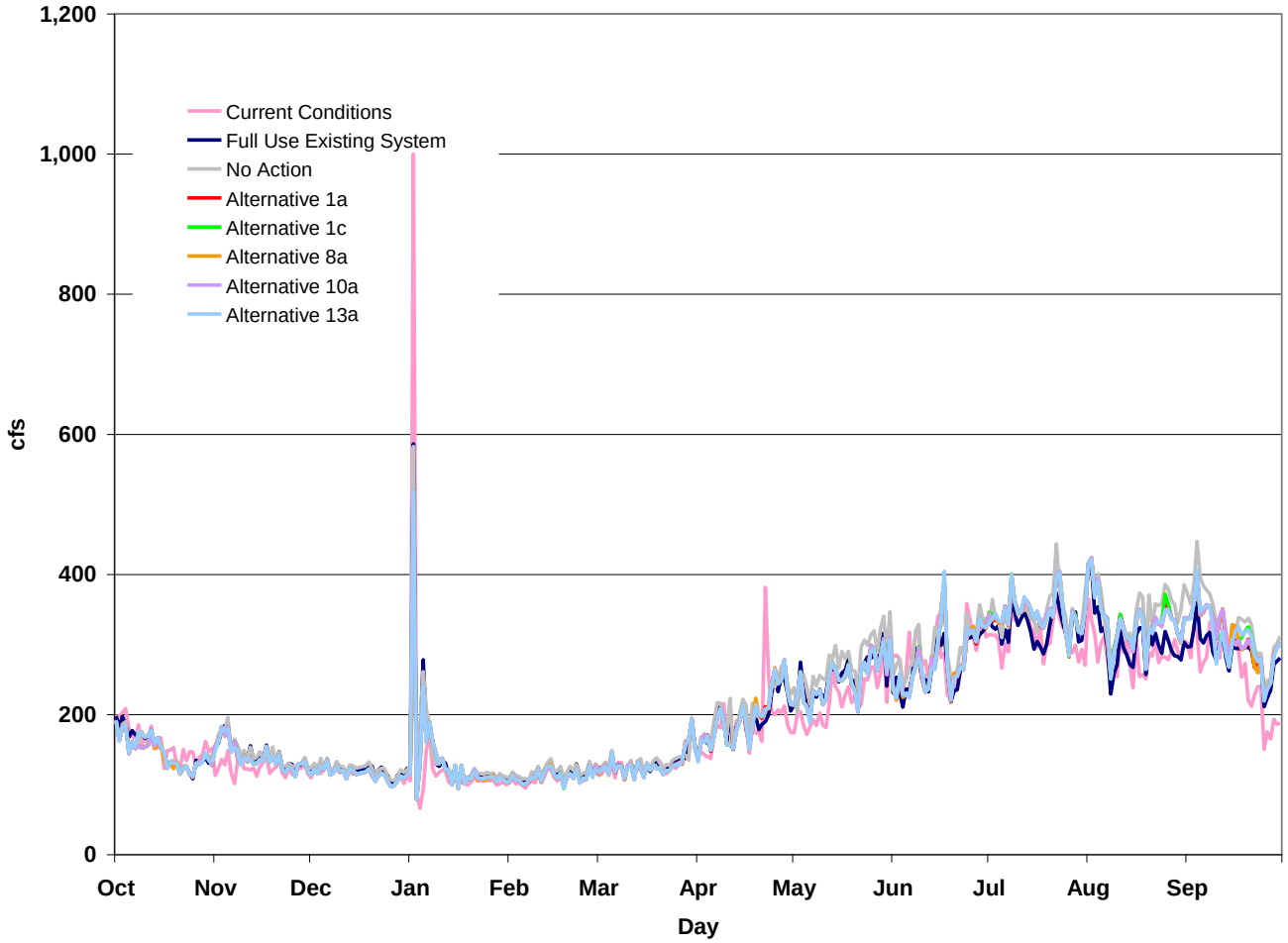
*The large release in January is a modeling technique to move enough water from Cheesman Reservoir to Strontia Springs Reservoir to assure adequate water for minimum releases. During actual operation, these releases would be spread over several weeks.

Figure H-4.125. Cheesman Reservoir – Wet Year Average Daily Outflow (cfs)



*The large release in January is a modeling technique to move enough water from Cheesman Reservoir to Strontia Springs Reservoir to assure adequate water for minimum releases. During actual operation, these releases would be spread over several weeks.

Figure H-4.126. Cheesman Reservoir – Dry Year Average Daily Outflow (cfs)



*The large release in January is a modeling technique to move enough water from Cheesman Reservoir to Strontia Springs Reservoir to assure adequate water for minimum releases. During actual operation, these releases would be spread over several weeks.

Figure H-4.127. South Platte River at Waterton Gage – Average Daily Flow (cfs)

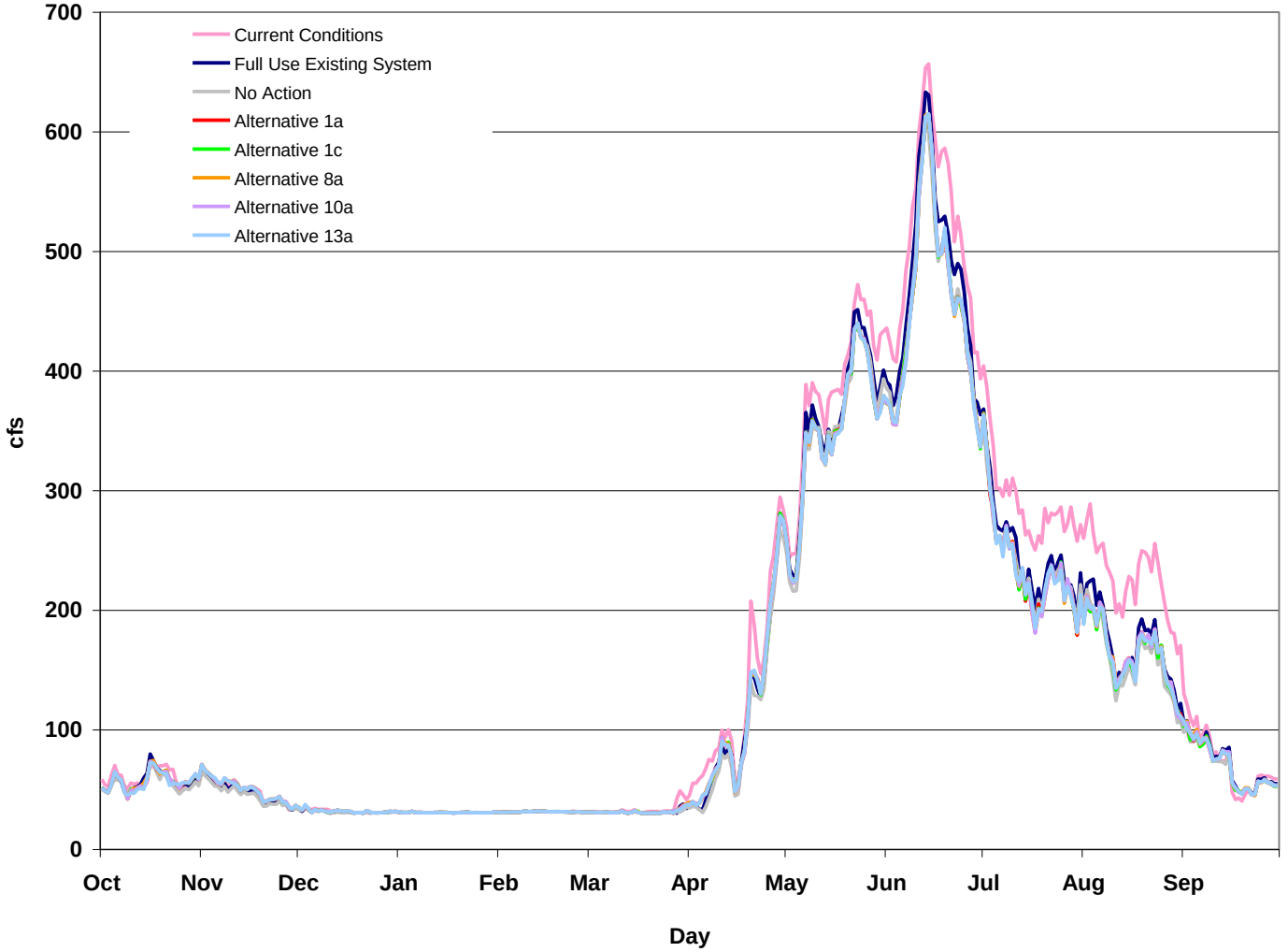


Figure H-4.128. South Platte River at Waterton Gage – Wet Year Average Daily Flow (cfs)

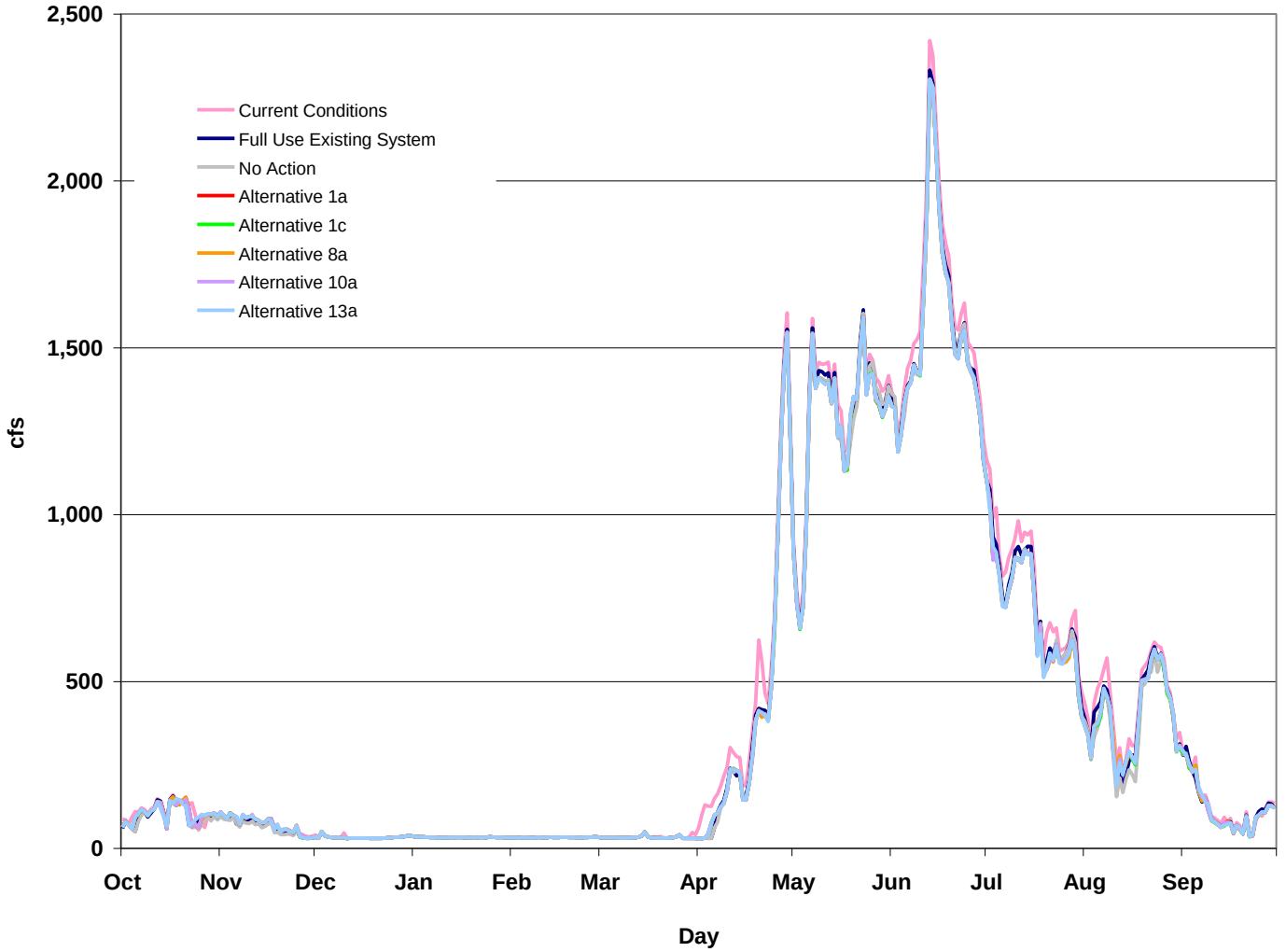
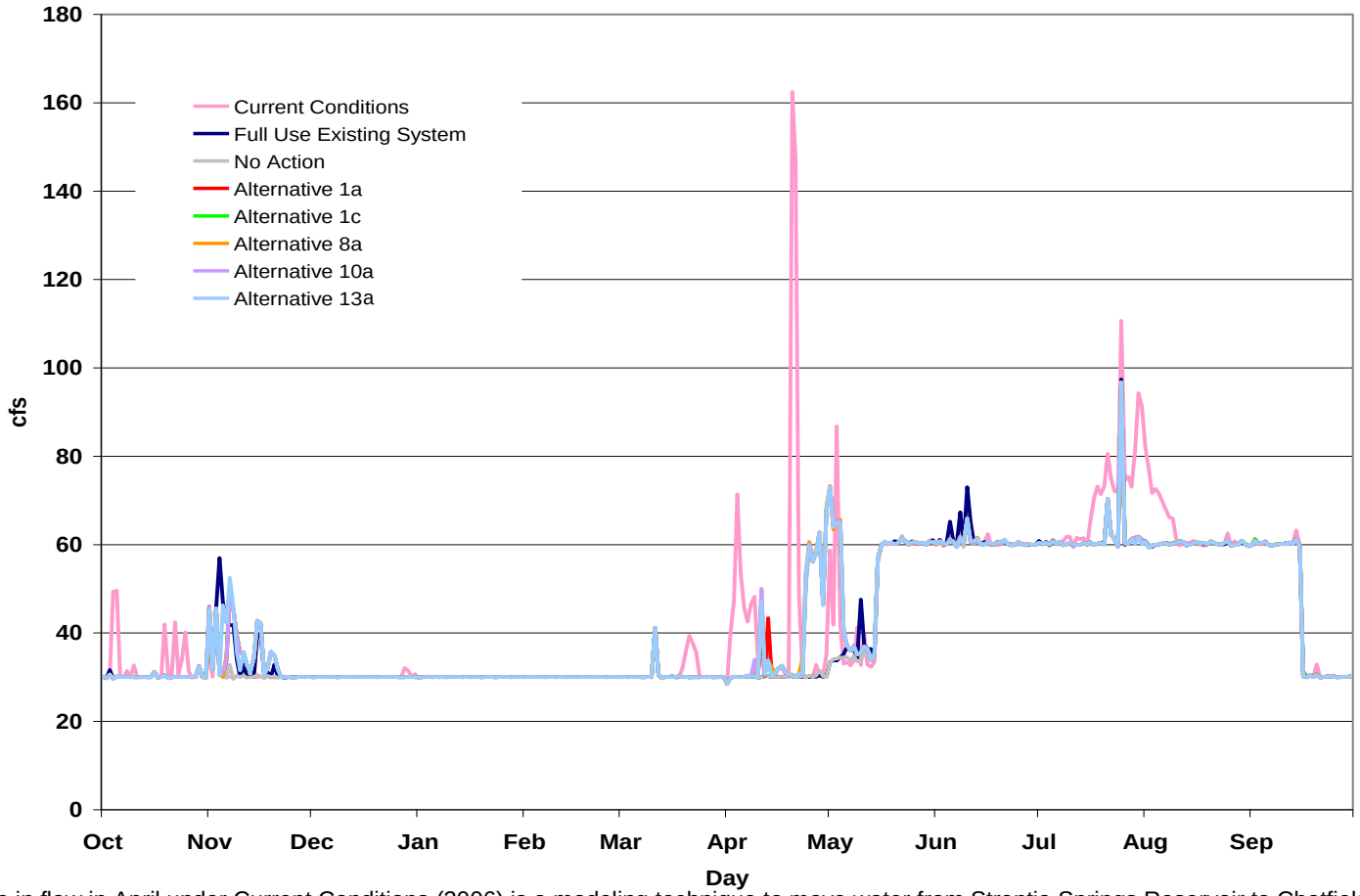


Figure H-4.129. South Platte River at Waterton Gage – Dry Year Average Daily Flow (cfs)



*The spike in flow in April under Current Conditions (2006) is a modeling technique to move water from Strontia Springs Reservoir to Chatfield Reservoir to assure adequate water in Chatfield Reservoir by May 1 for recreational purposes. In PACSM these releases start on April 20 of each year and continue through the end of that month since that is typically adequate in most years. During actual operations, high magnitude releases, which occurred in one of the five dry years selected, would be spread over several weeks. This release is required under Current Conditions (2006) but not in any other scenarios because Chatfield Reservoir is lower due to less exchange from Denver Water gravel pits.

Figure H-4.130. South Platte River at Denver Gage – Average Daily Flow (cfs)

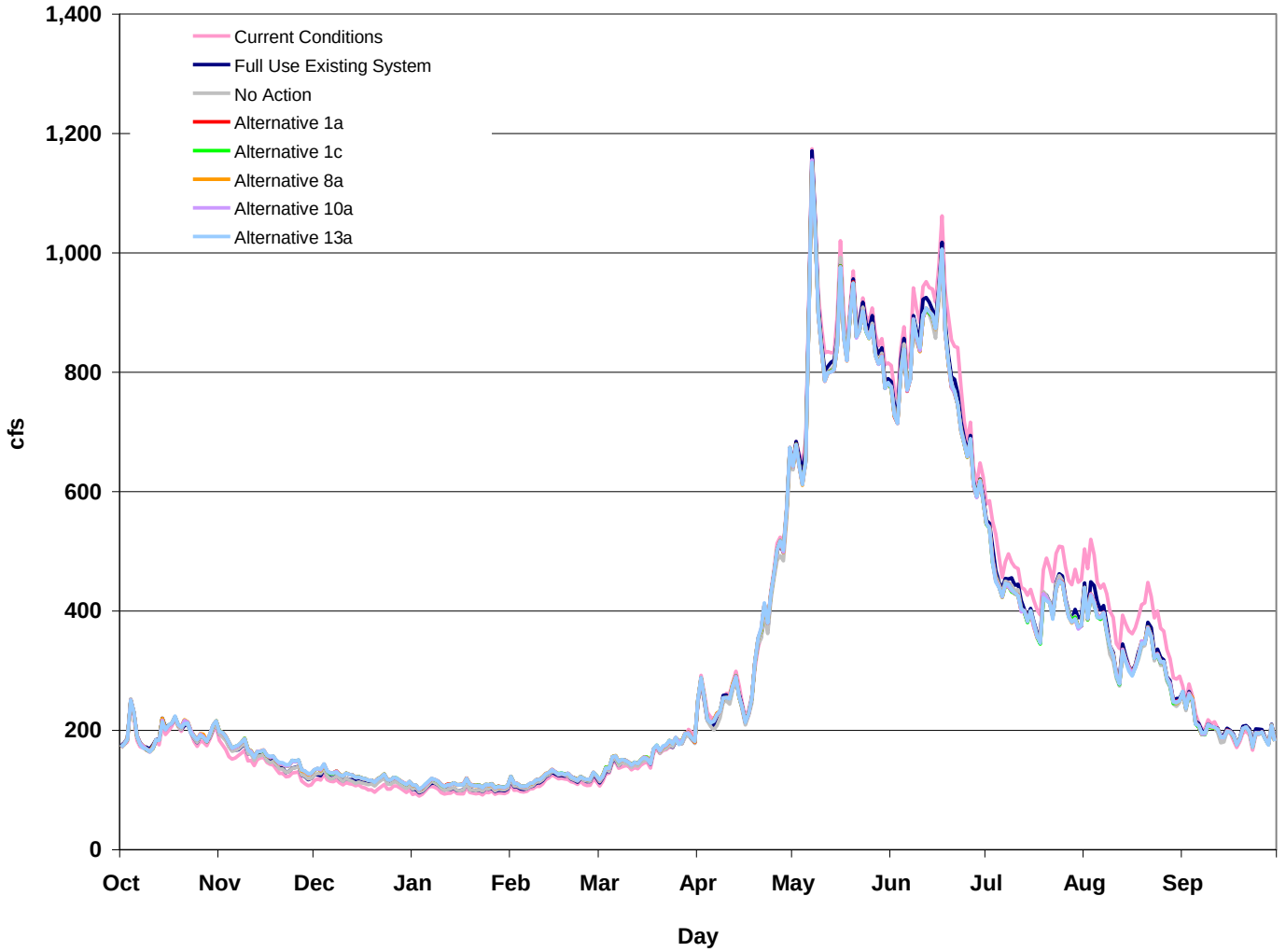


Figure H-4.131. South Platte River at Denver Gage – Wet Year Average Daily Flow (cfs)

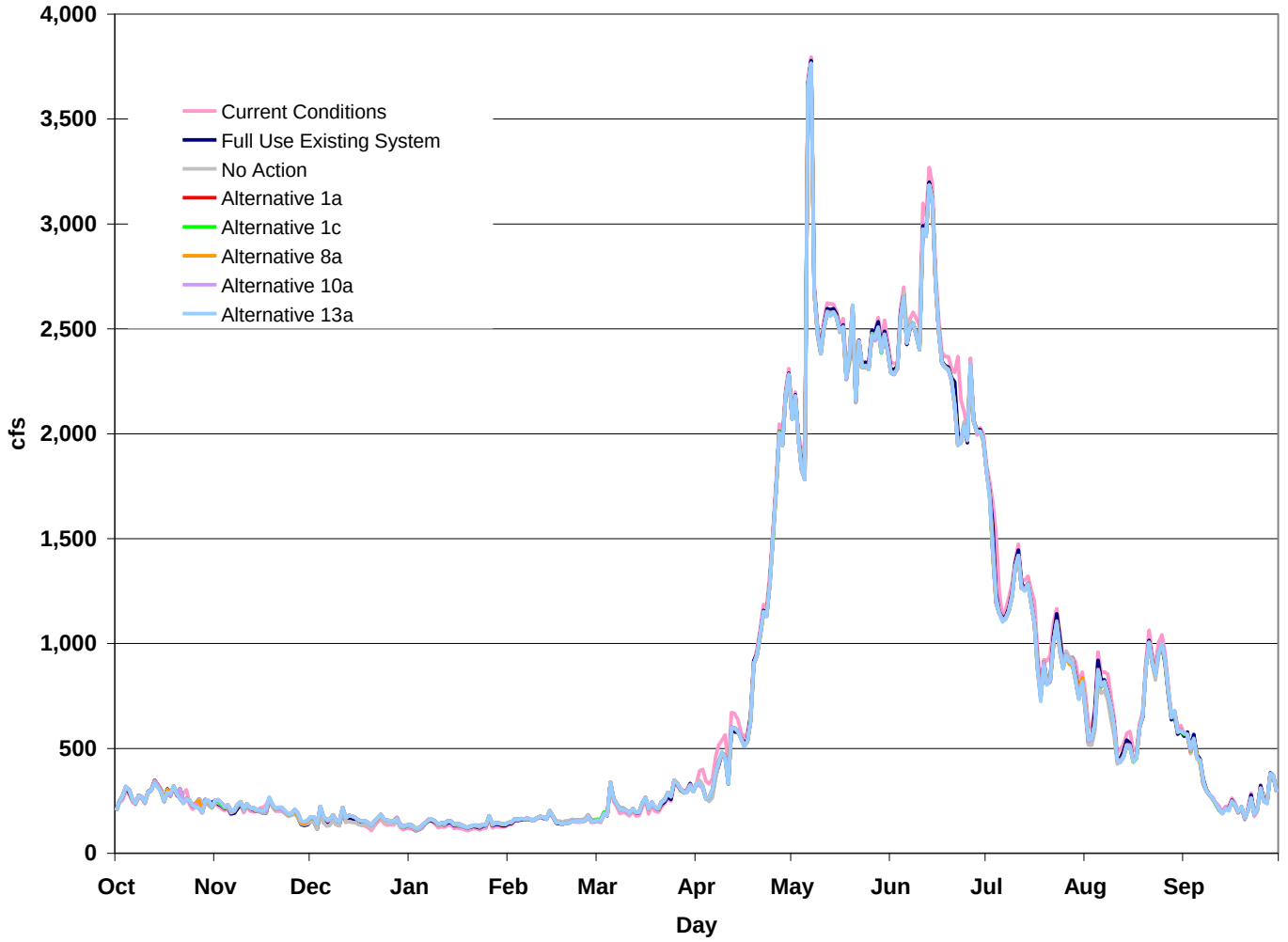
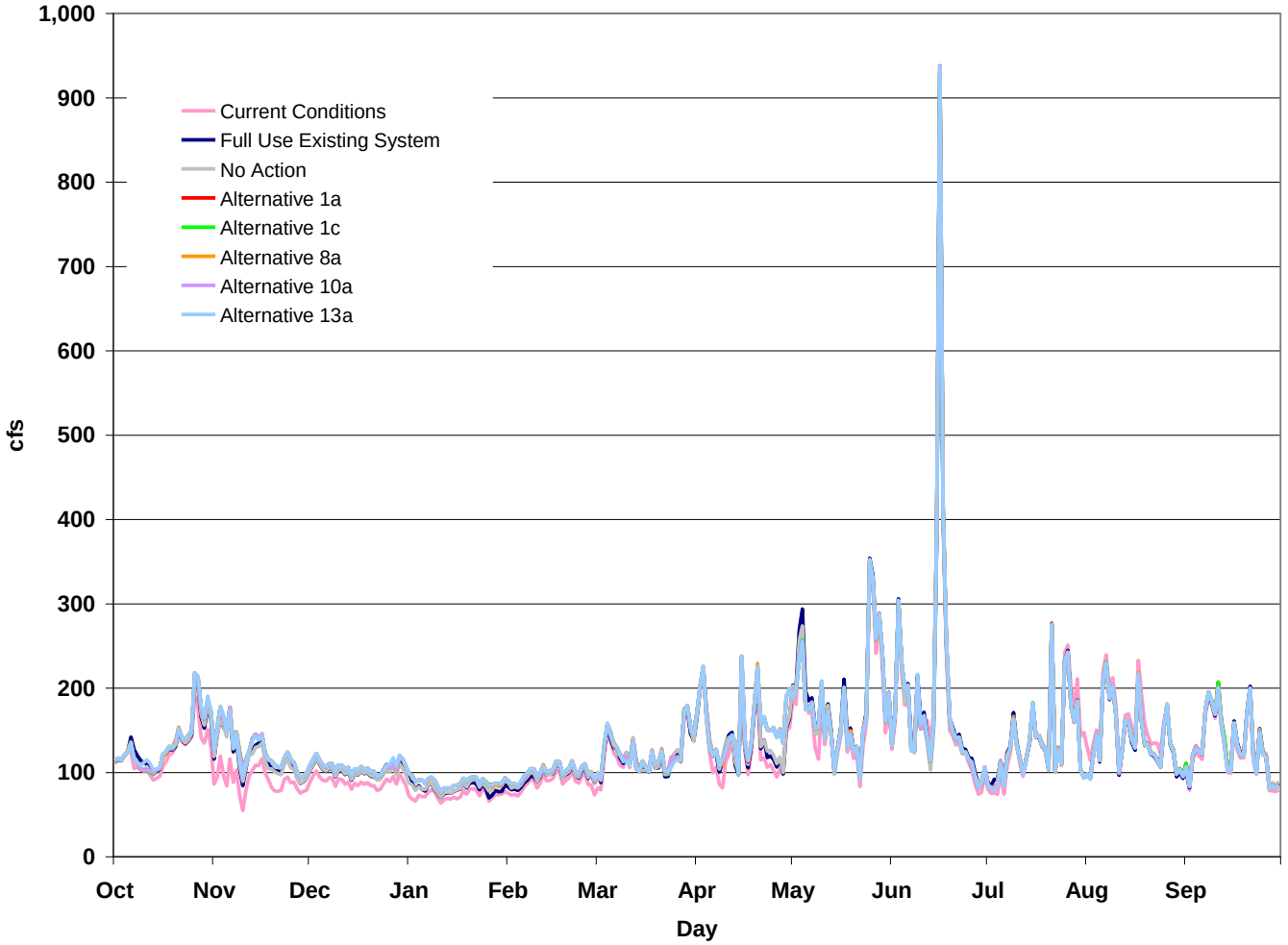


Figure H-4.132. South Platte River at Denver Gage – Dry Year Average Daily Flow (cfs)



*The spike in flow in mid- to late-June at the South Platte River at Denver gage under all the model scenarios corresponds with rain events that occurred in June of 1950 and 1963, which are two of the five dry years selected for the dry year average.

Figure H-4.133. South Platte River at Henderson Gage – Average Daily Flow (cfs)

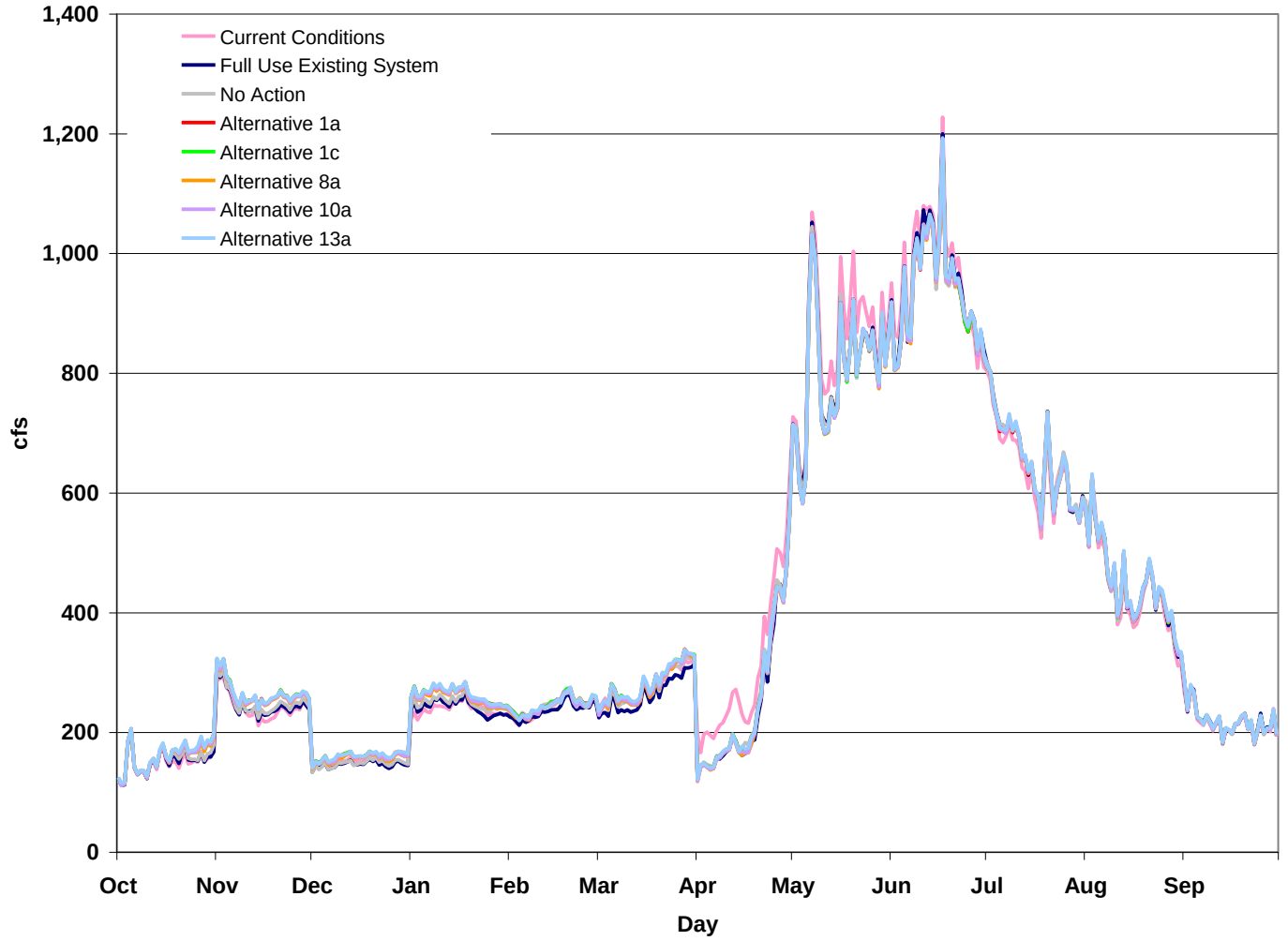


Figure H-4.134. South Platte River at Henderson Gage – Wet Year Average Daily Flow (cfs)

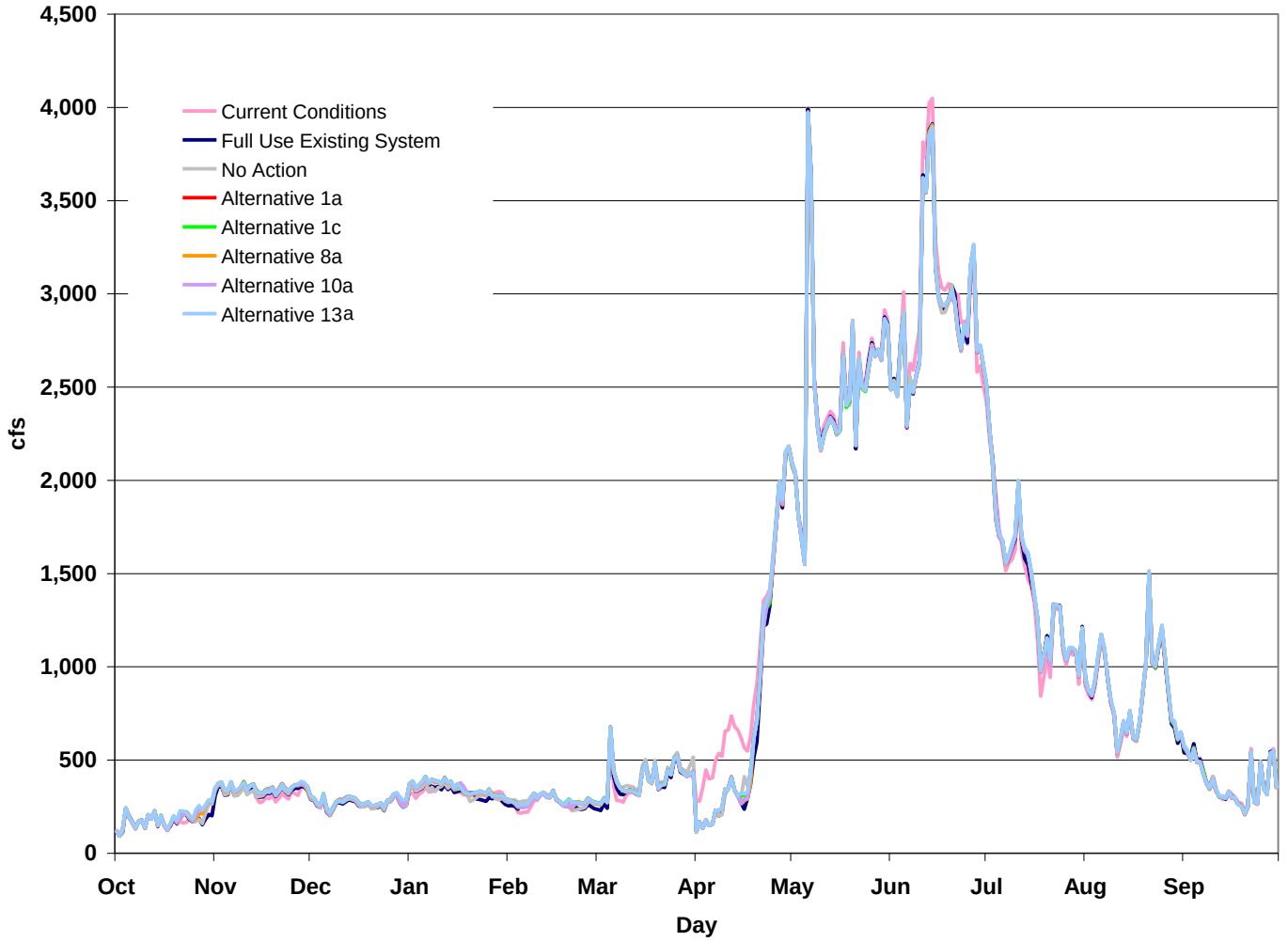
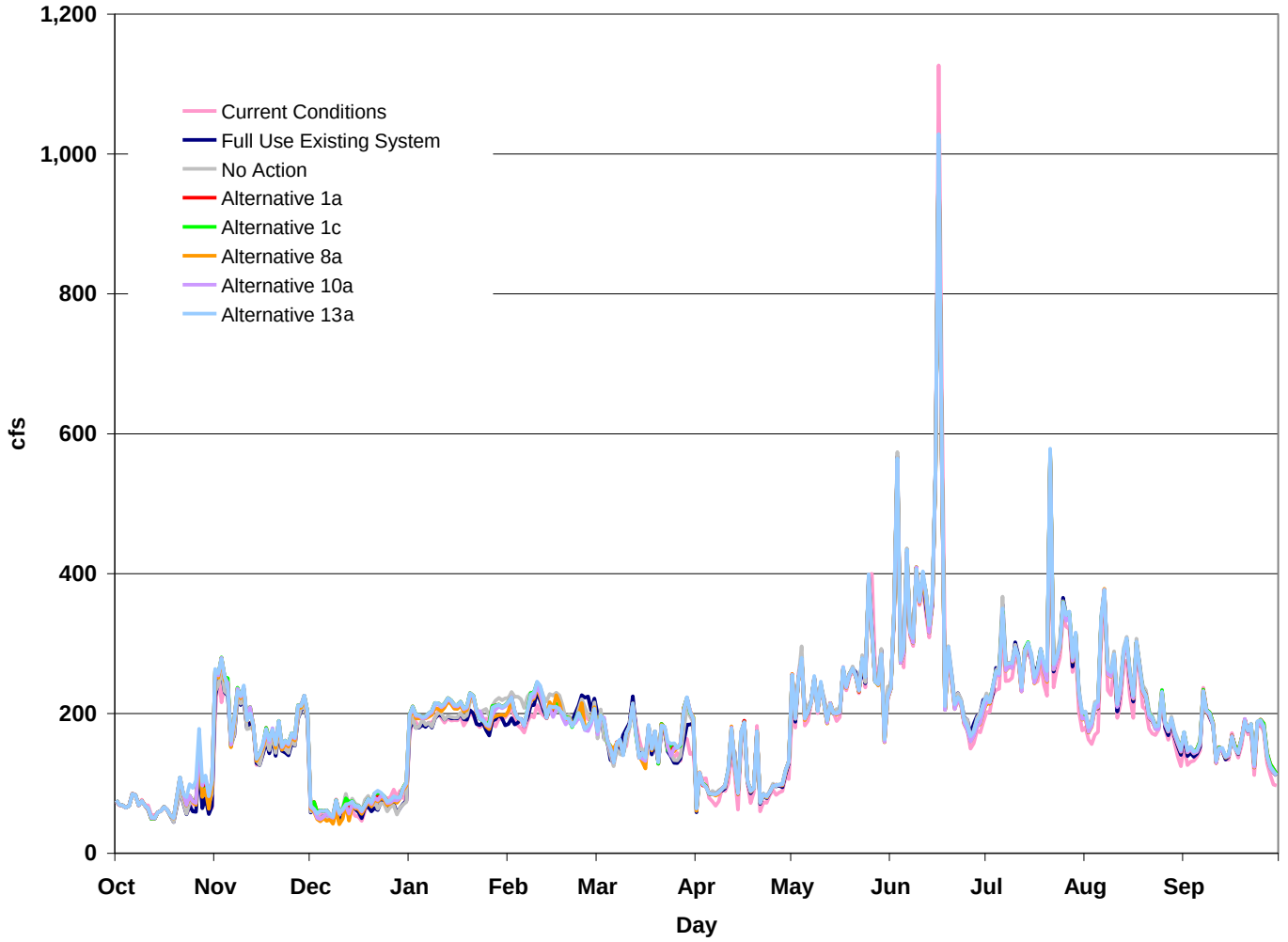


Figure H-4.135. South Platte River at Henderson Gage – Dry Year Average Daily Flow (cfs)



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Appendix H-5
PACSM Output – Flow Duration Curves

- Figure H-5.1 Flow Duration Curve – Below Denver Water's Diversion from the Fraser River
- Figure H-5.2 Flow Duration Curve – Below Denver Water's Diversion from Jim Creek
- Figure H-5.3 Flow Duration Curve – Fraser River near Winter Park Gage
- Figure H-5.4 Flow Duration Curve – Below Denver Water's Diversion from Little Vasquez Creek
- Figure H-5.5 Flow Duration Curve – Vasquez Creek Gage
- Figure H-5.6 Flow Duration Curve – Below Denver Water's Diversions from St. Louis Creek Tributaries
- Figure H-5.7 Flow Duration Curve – St. Louis Creek near Fraser Gage
- Figure H-5.8 Flow Duration Curve – Fraser River below St. Louis Creek
- Figure H-5.9 Flow Duration Curve – Below Denver Water's Englewood Ranch Gravity System Diversions
- Figure H-5.10 Flow Duration Curve – Below Denver Water's Diversion on Main Ranch Creek
- Figure H-5.11 Flow Duration Curve – Fraser River at Granby Gage
- Figure H-5.12 Flow Duration Curve – Below Denver Water's Diversion from Steelman Creek
- Figure H-5.13 Flow Duration Curve – Williams Fork River below Steelman Creek Gage
- Figure H-5.14 Flow Duration Curve – Williams Fork Reservoir Outflow
- Figure H-5.15 Flow Duration Curve – Colorado River below Windy Gap Diversion
- Figure H-5.16 Flow Duration Curve – Colorado River below the Confluence with Williams Fork River
- Figure H-5.17 Flow Duration Curve – Colorado River near Kremmling Gage
- Figure H-5.18 Flow Duration Curve – Wolford Mountain Reservoir Outflow
- Figure H-5.19 Flow Duration Curve – Dillon Reservoir Outflow
- Figure H-5.20 Flow Duration Curve – Green Mountain Reservoir Outflow
- Figure H-5.21 Flow Duration Curve – South Boulder Creek at Pinecliffe Gage
- Figure H-5.22 Flow Duration Curve – Gross Reservoir Outflow
- Figure H-5.23 Flow Duration Curve – South Boulder Creek near Eldorado Springs Gage

- Figure H-5.24 Flow Duration Curve – North Fork South Platte below Geneva Creek Gage
- Figure H-5.25 Flow Duration Curve – Antero Reservoir Outflow
- Figure H-5.26 Flow Duration Curve – Eleven Mile Reservoir Outflow
- Figure H-5.27 Flow Duration Curve – Cheesman Reservoir Outflow
- Figure H-5.28 Flow Duration Curve – South Platte River at Waterton Gage
- Figure H-5.29 Flow Duration Curve – South Platte River at Denver Gage
- Figure H-5.30 Flow Duration Curve – South Platte River at Henderson Gage

Figure H-5.1. Flow Duration Curve – Below Denver Water's Diversion from the Fraser River

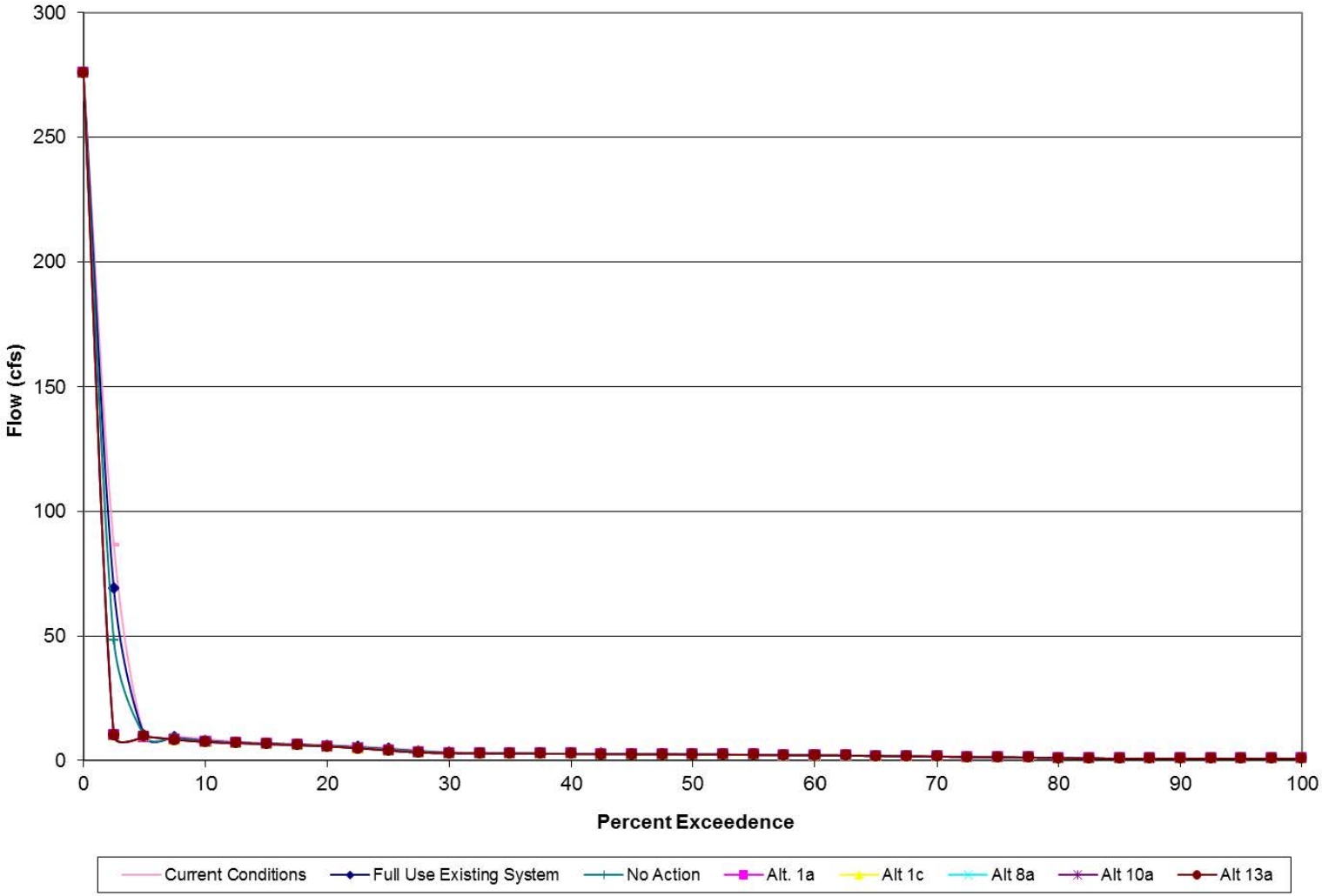


Figure H-5.2. Flow Duration Curve – Below Denver Water's Diversion from Jim Creek

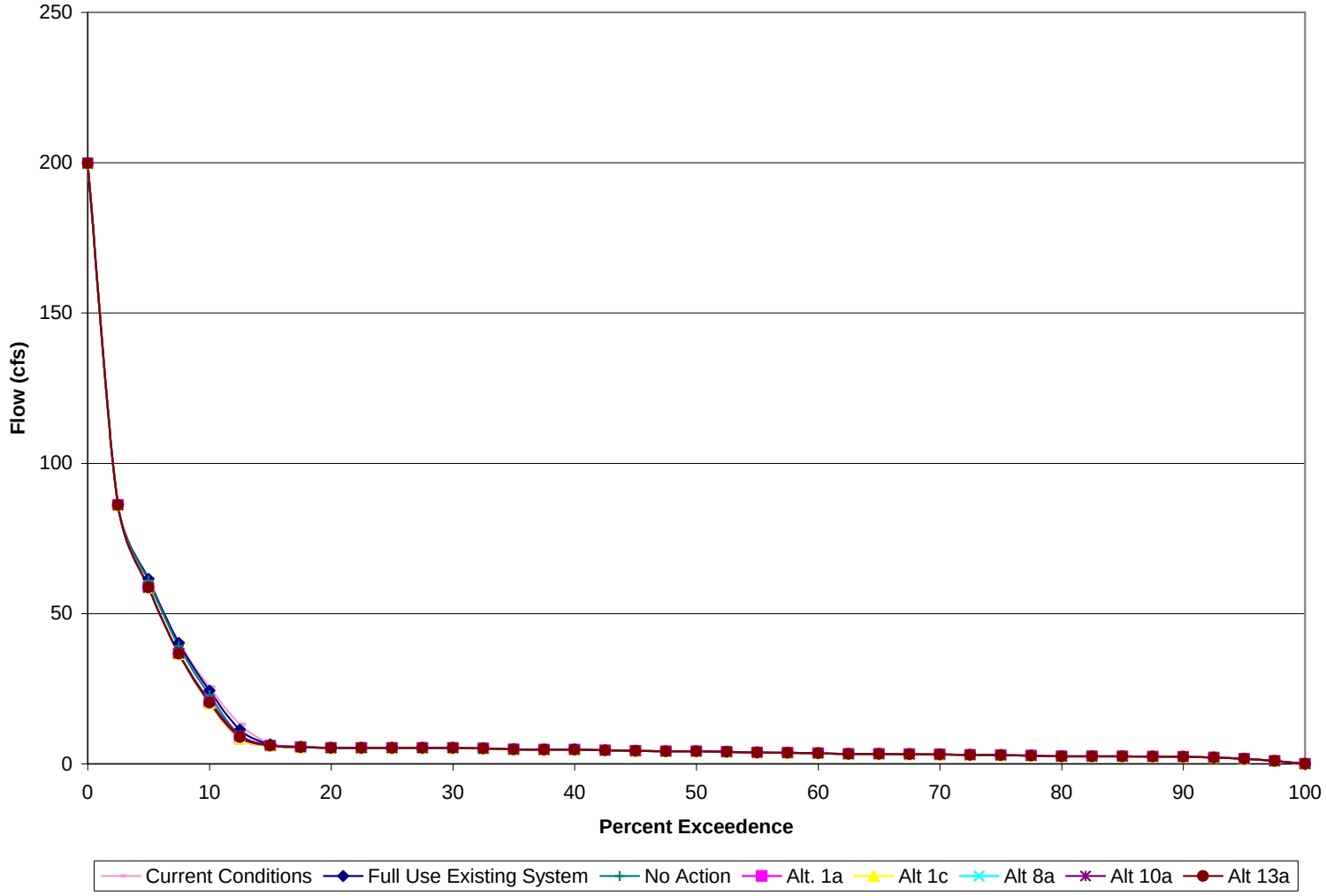


Figure H-5.3. Flow Duration Curve – Fraser River near Winter Park Gage

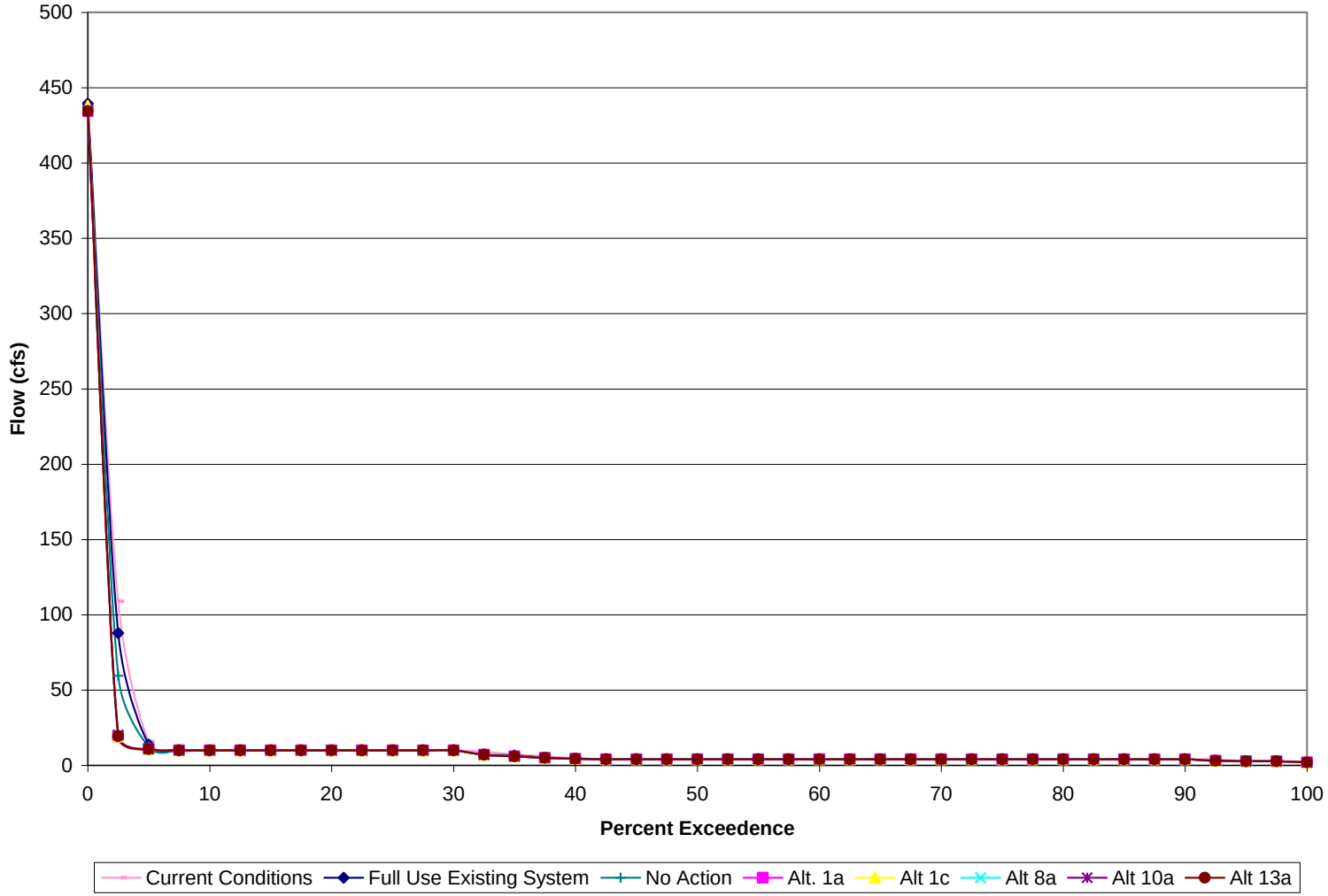


Figure H-5.4. Flow Duration Curve – Below Denver Water's Diversion from Little Vasquez Creek

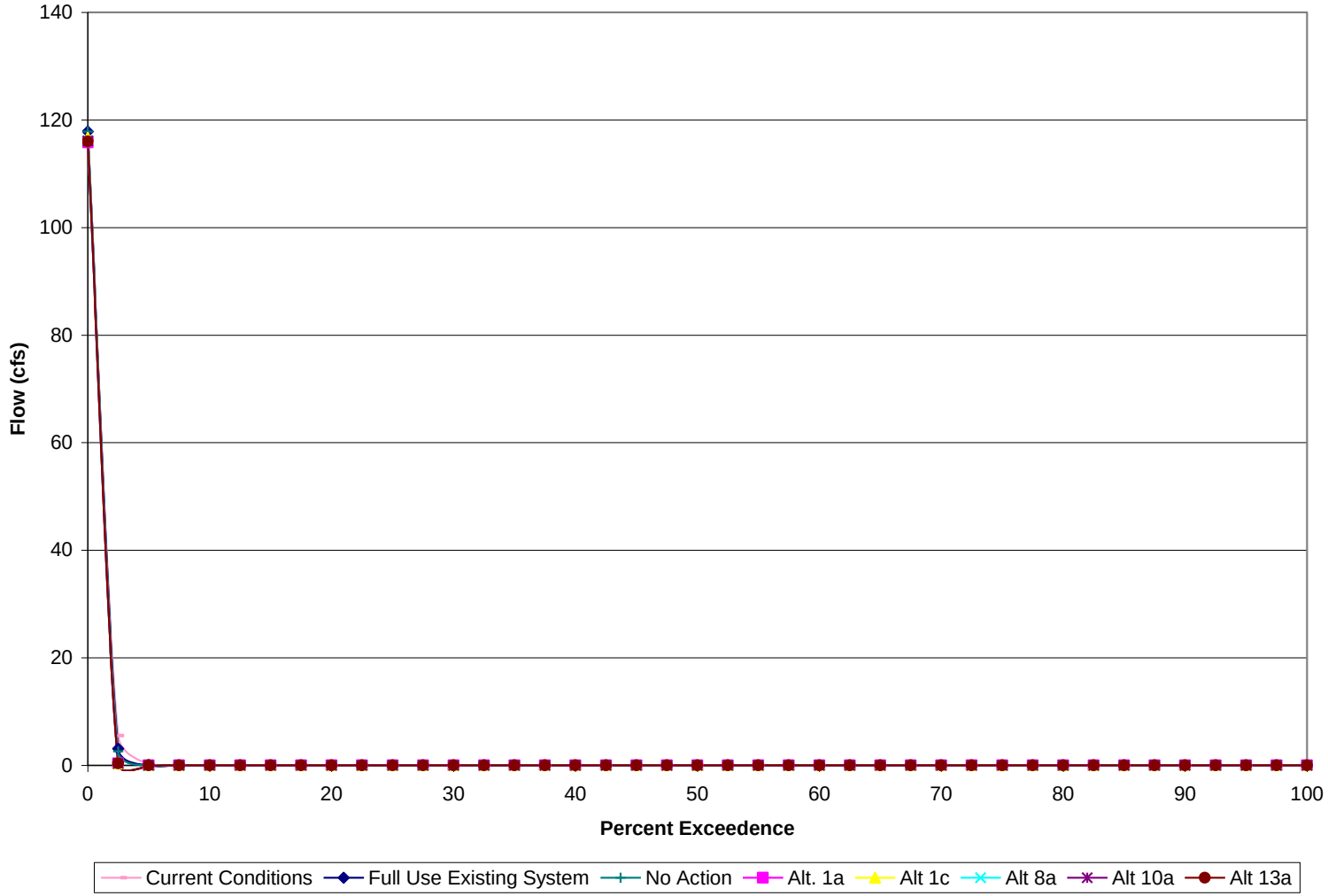


Figure H-5.5. Flow Duration Curve – Vasquez Creek Gage

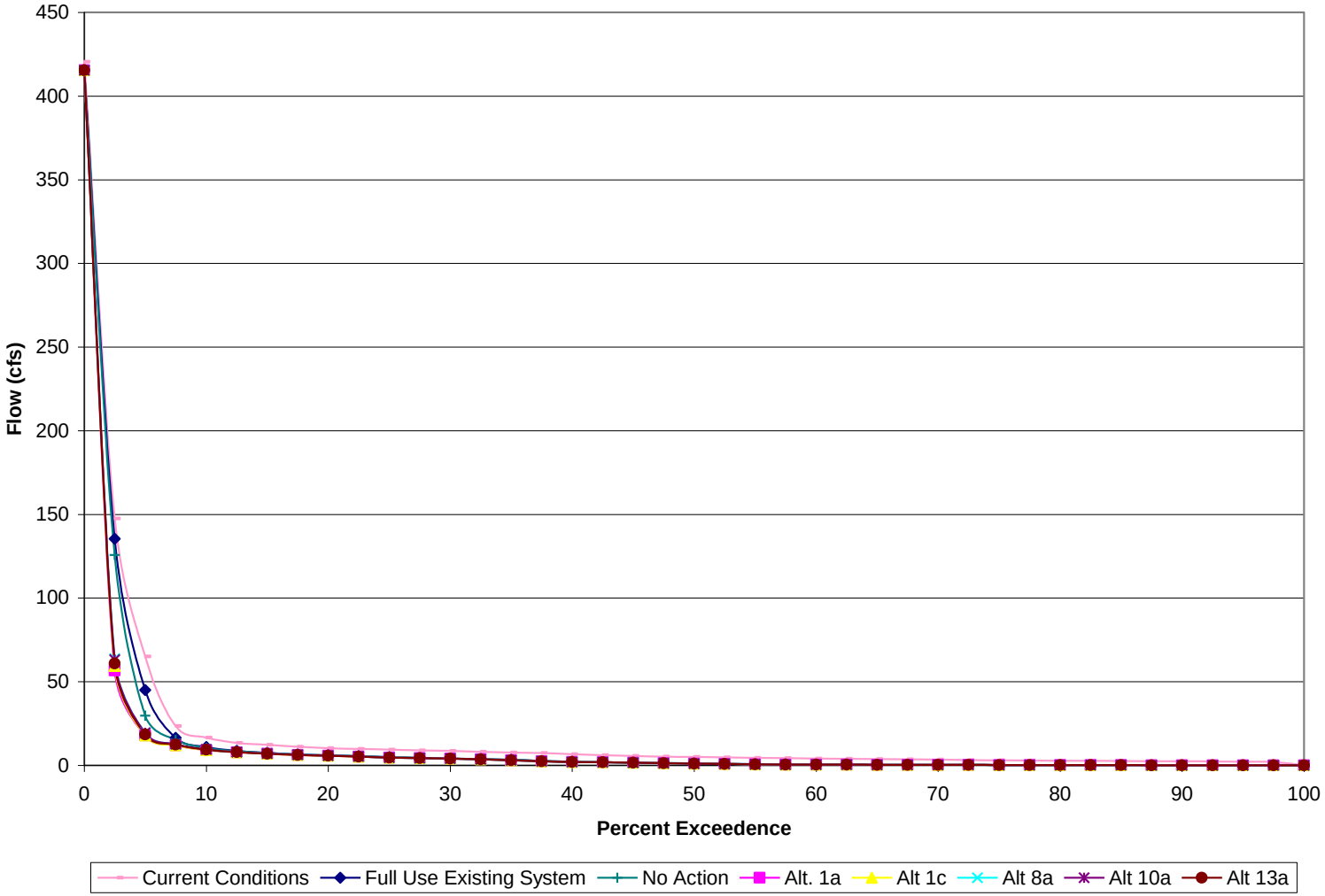


Figure H-5.6. Flow Duration Curve – Below Denver Water's Diversions from St. Louis Creek Tributaries

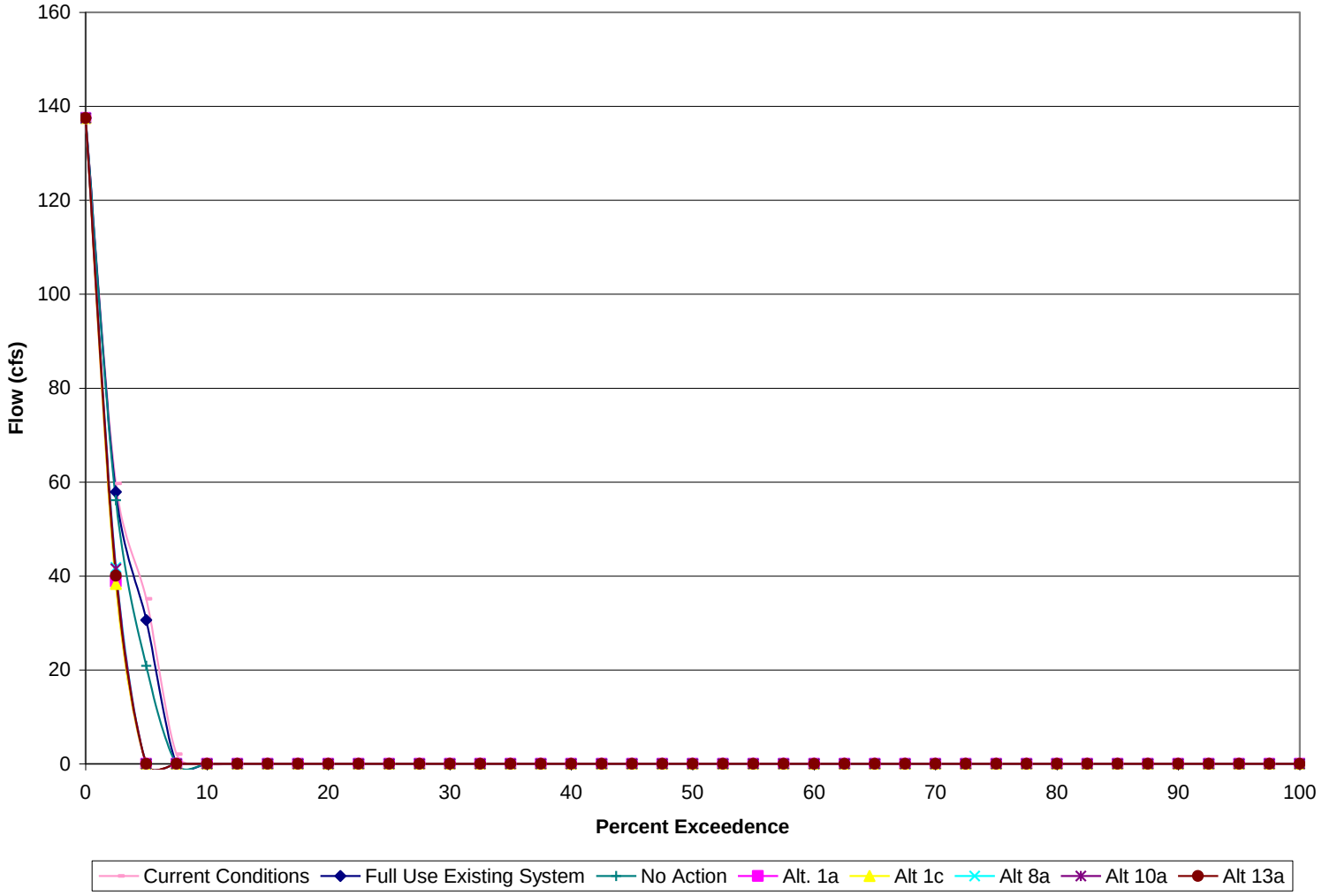


Figure H-5.7. Flow Duration Curve – St. Louis Creek near Fraser Gage

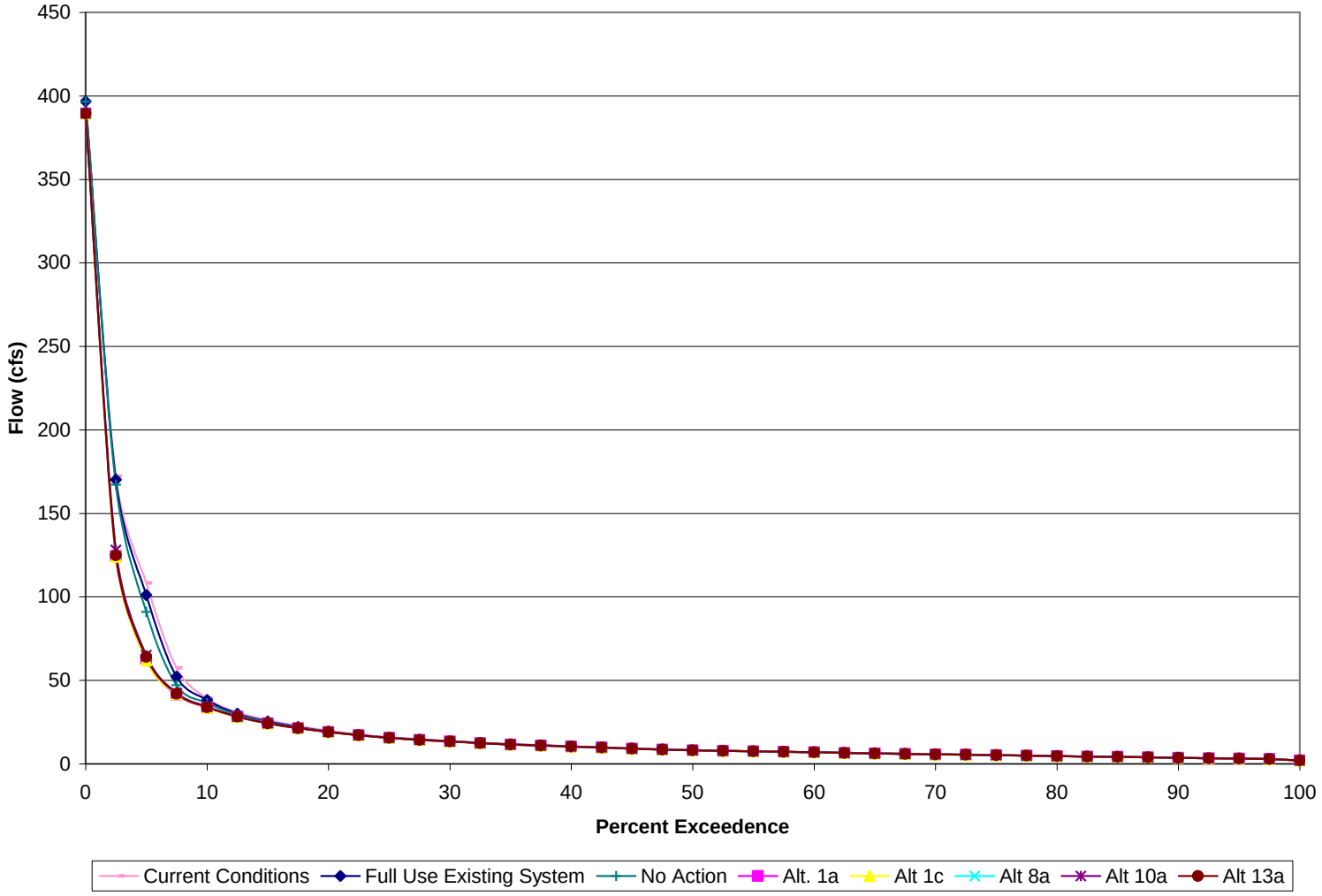


Figure H-5.8. Flow Duration Curve – Fraser River below St. Louis Creek

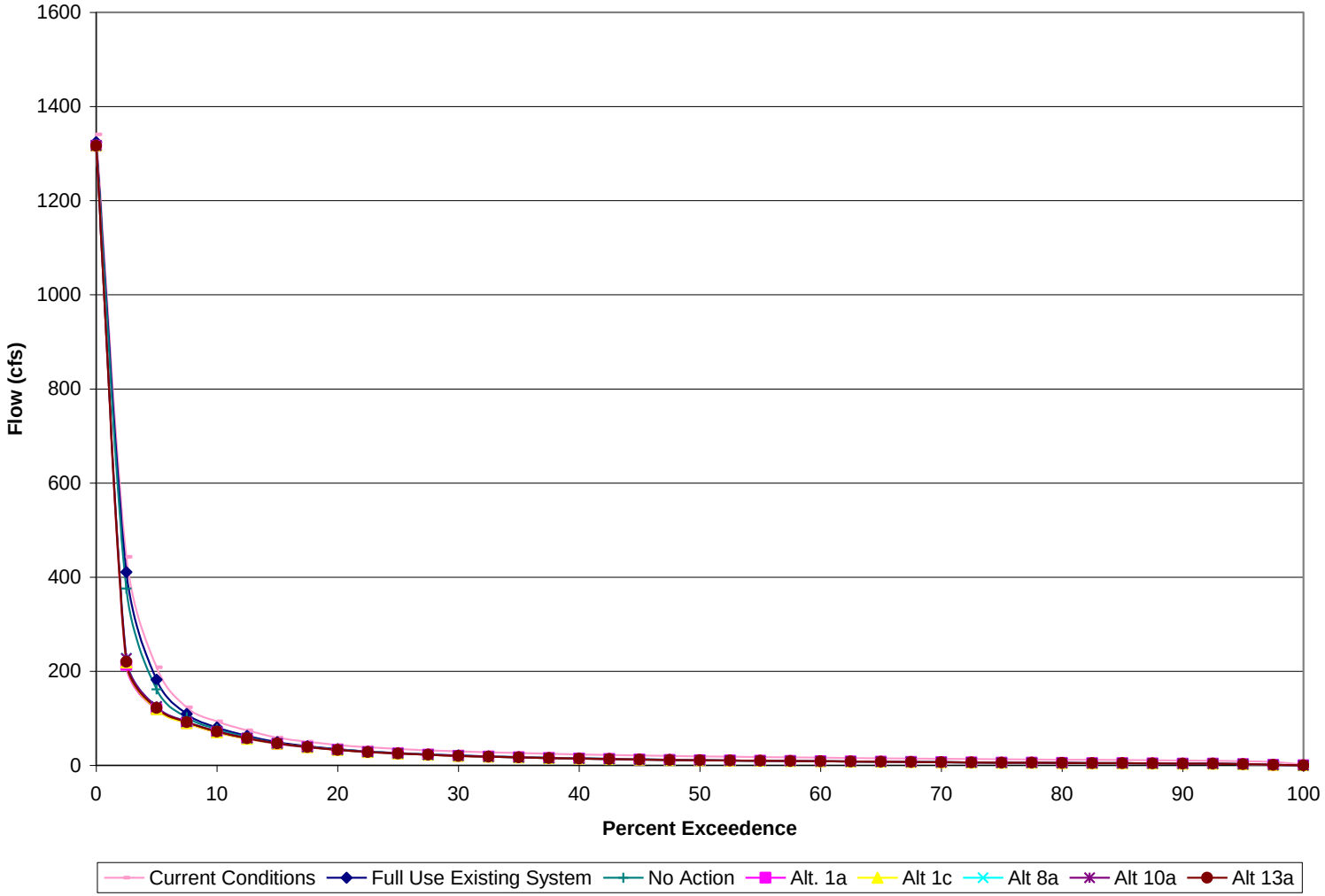


Figure H-5.9. Flow Duration Curve – Below Denver Water's Englewood Ranch Gravity System Diversions

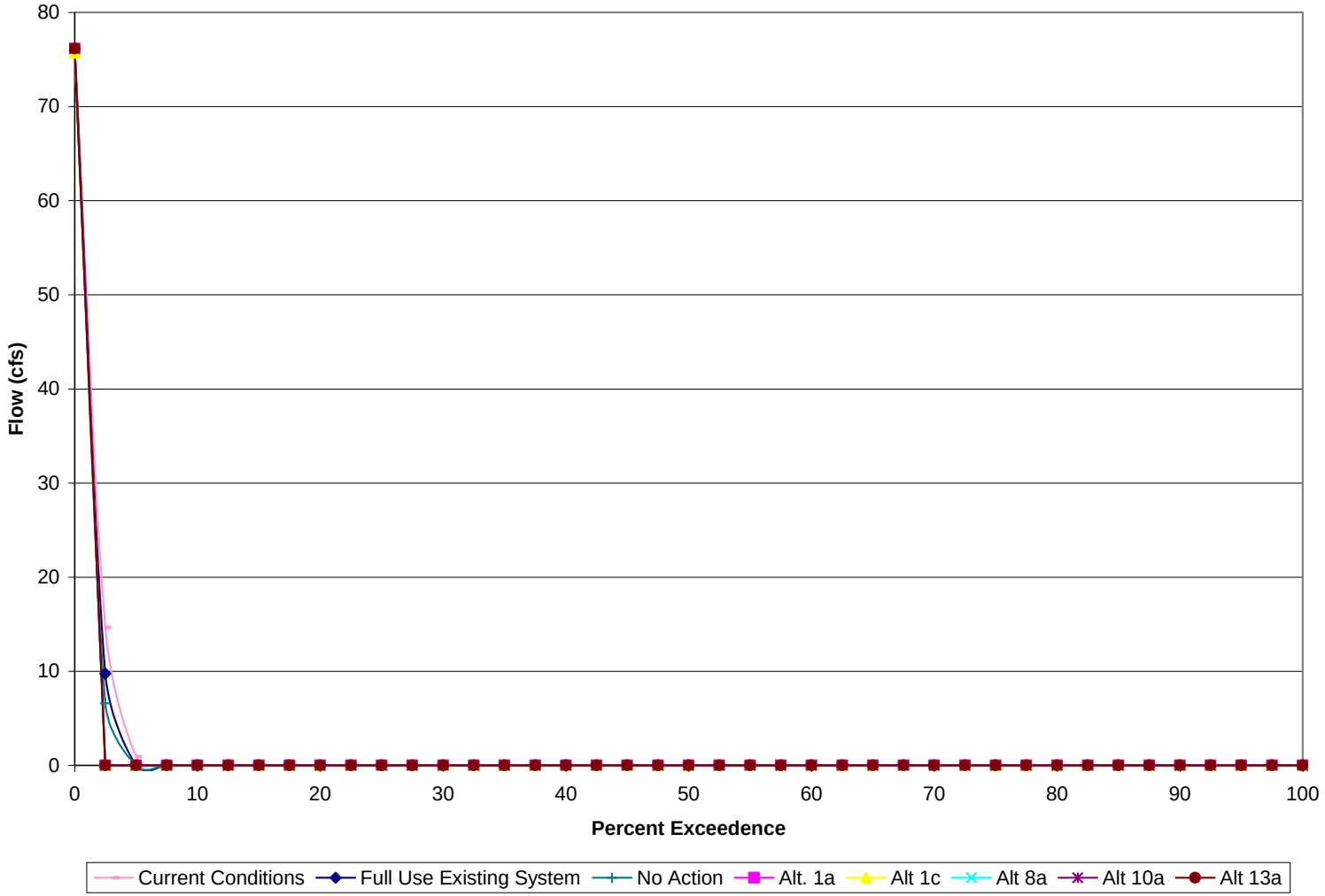


Figure H-5.10. Flow Duration Curve – Below Denver Water's Diversion on Main Ranch Creek

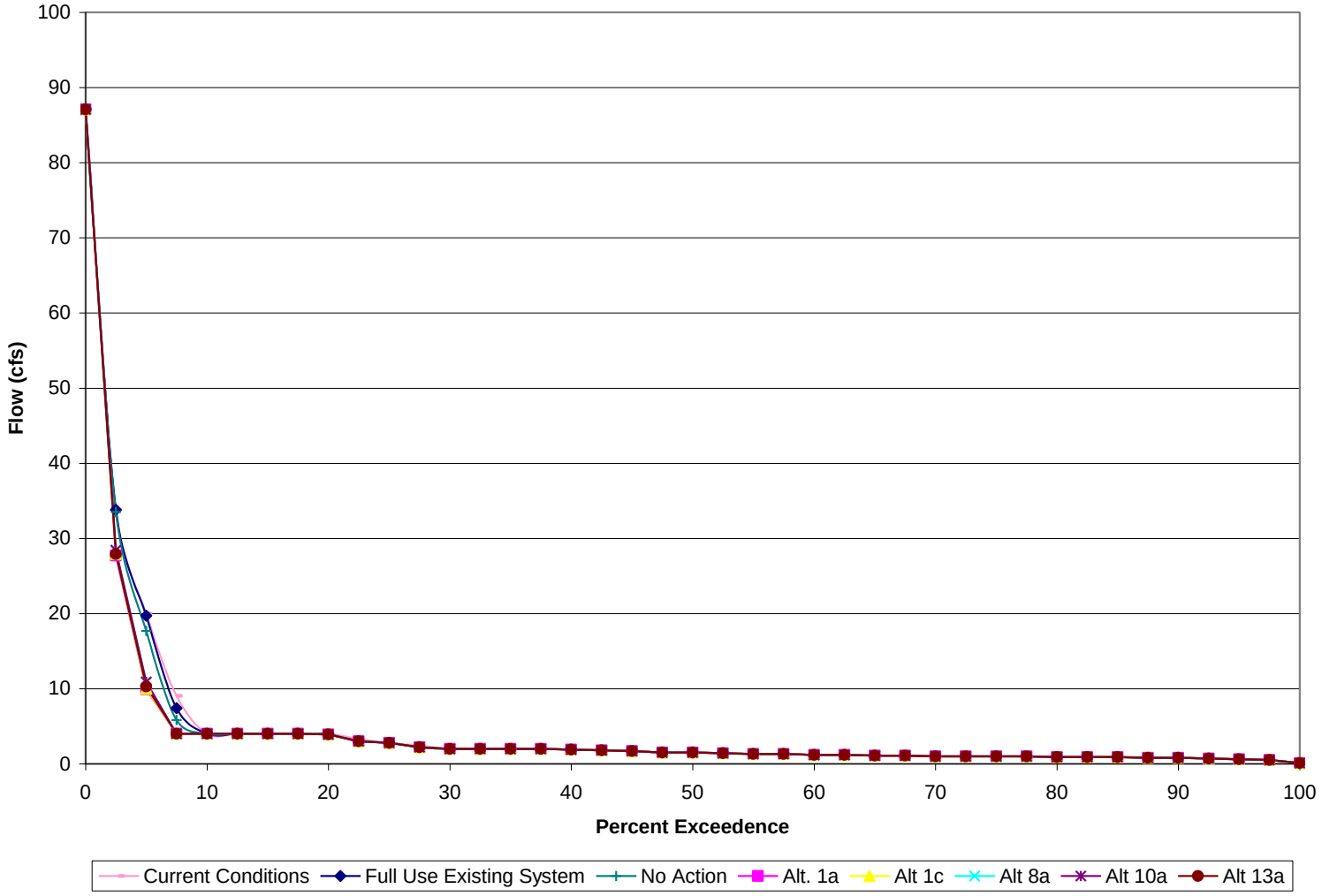


Figure H-5.11. Flow Duration Curve – Fraser River at Granby Gage

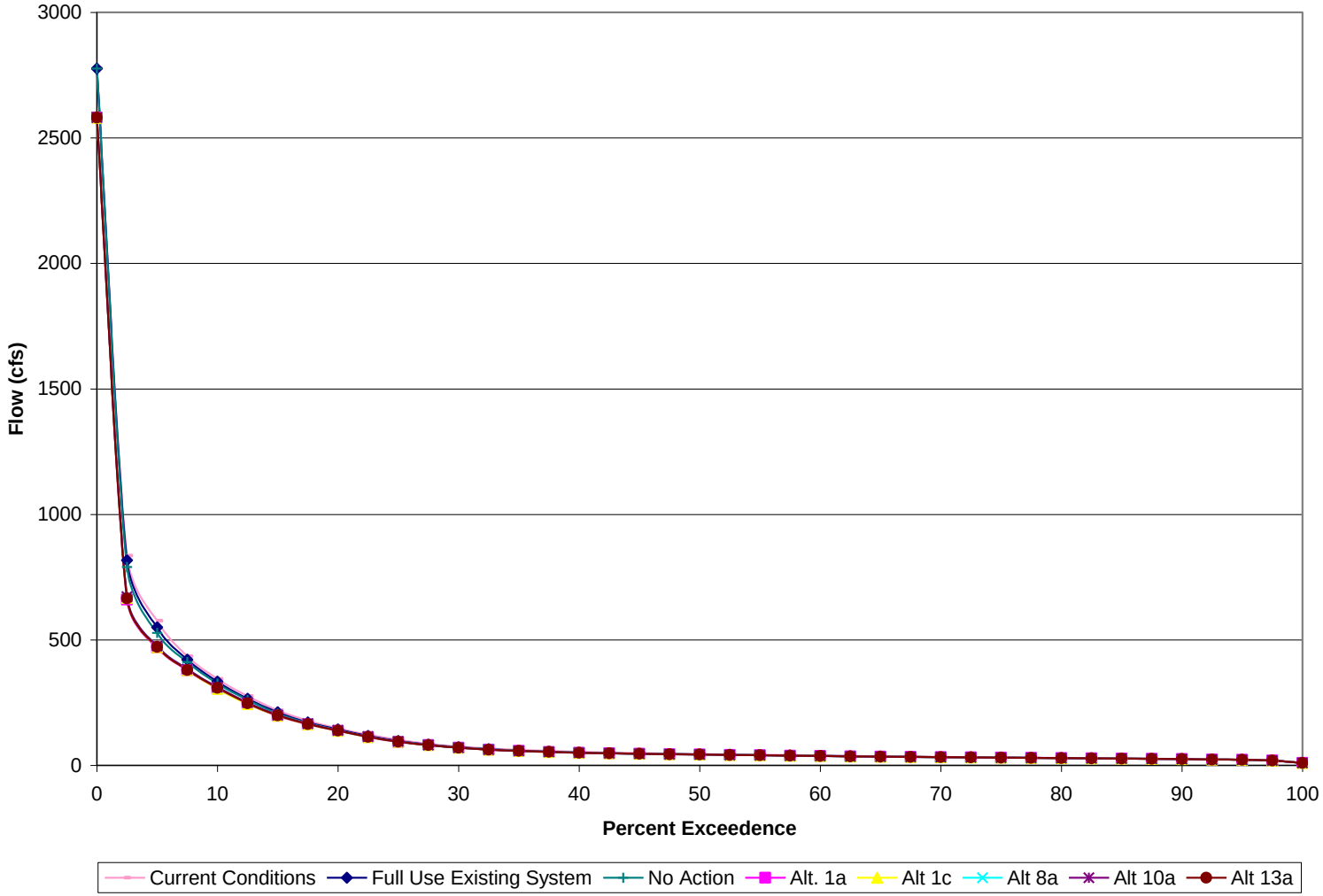


Figure H-5.12. Flow Duration Curve – Below Denver Water's Diversion from Steelman Creek

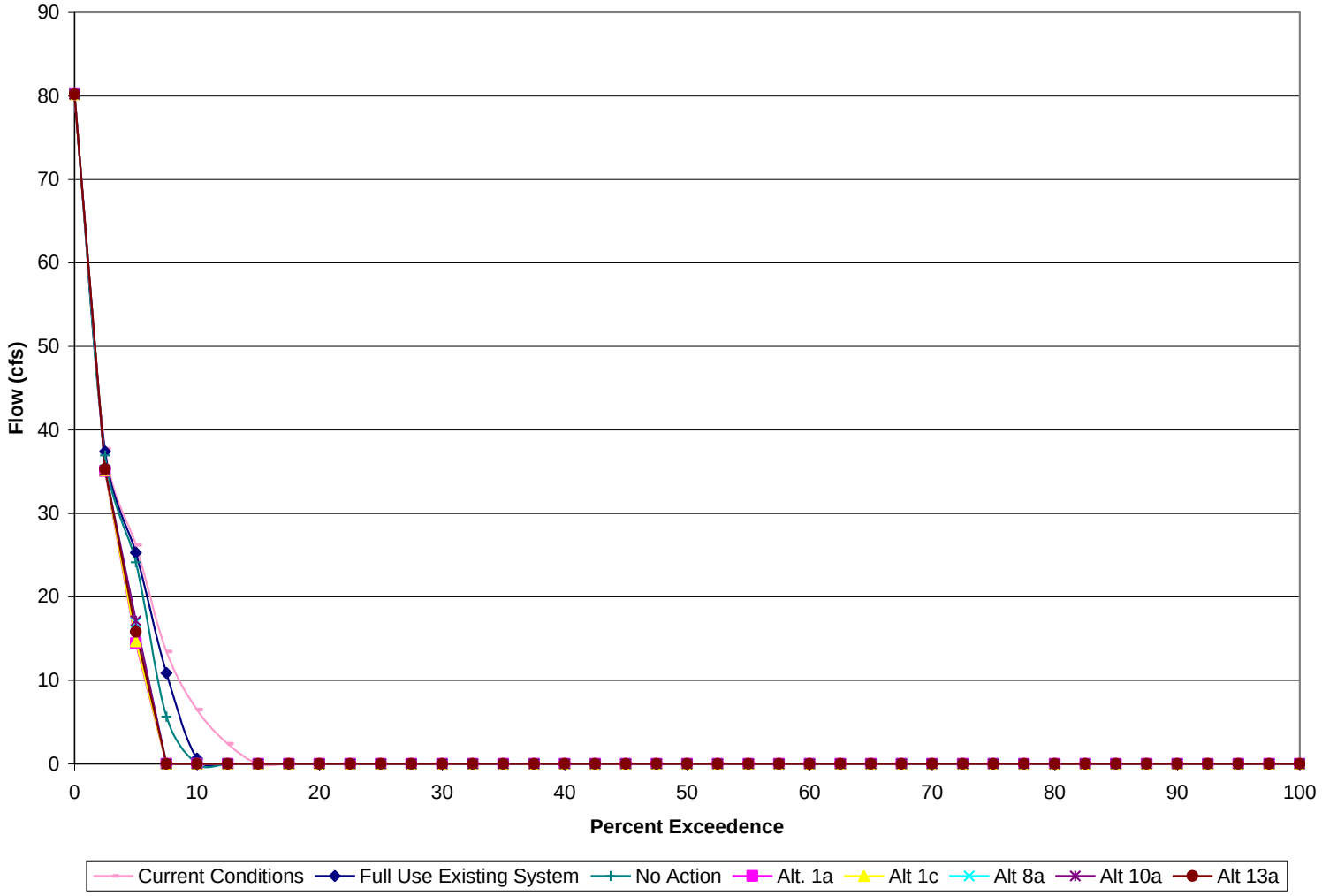


Figure H-5.13. Flow Duration Curve – Williams Fork River below Steelman Creek Gage

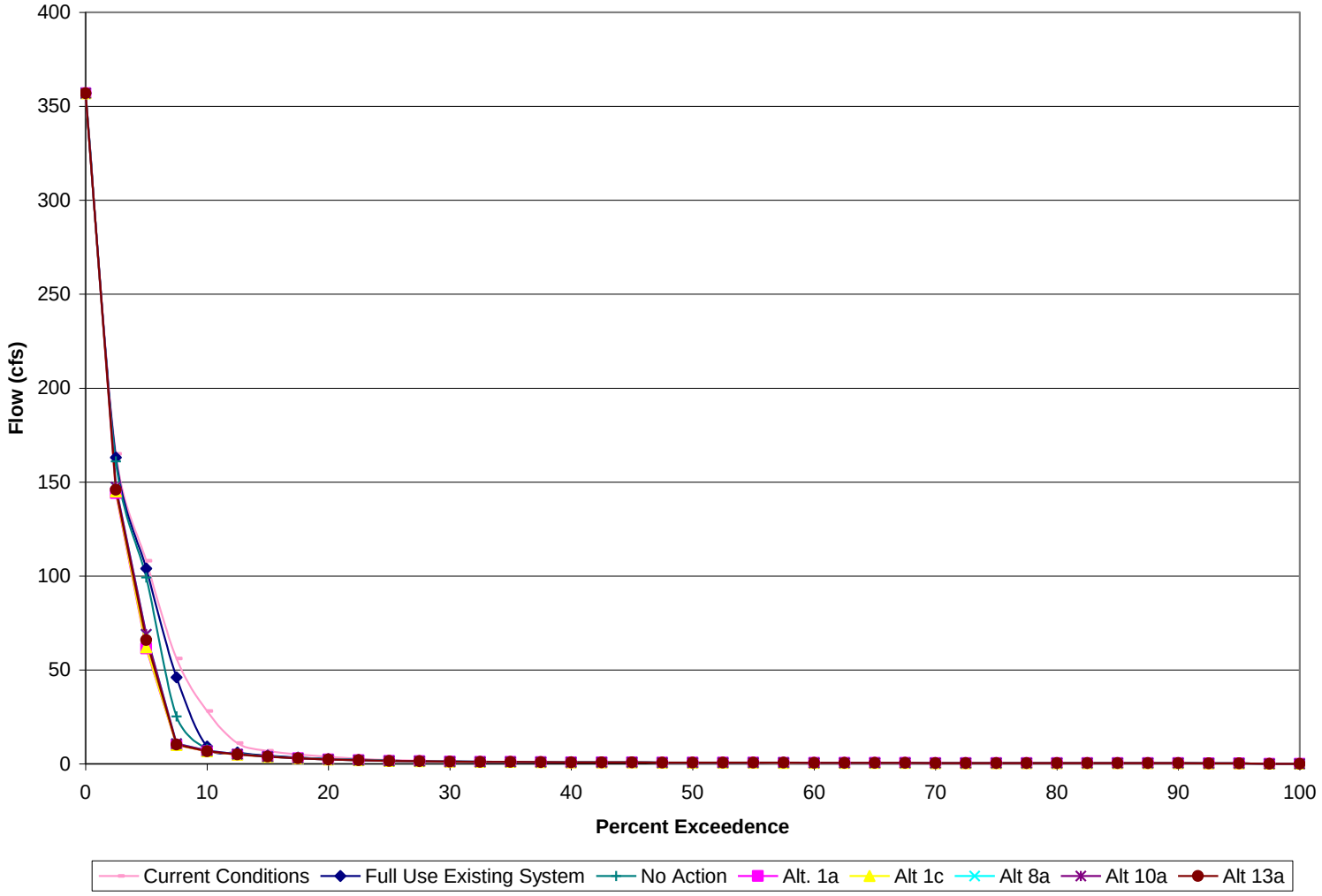


Figure H-5.14. Flow Duration Curve – Williams Fork Reservoir Outflow

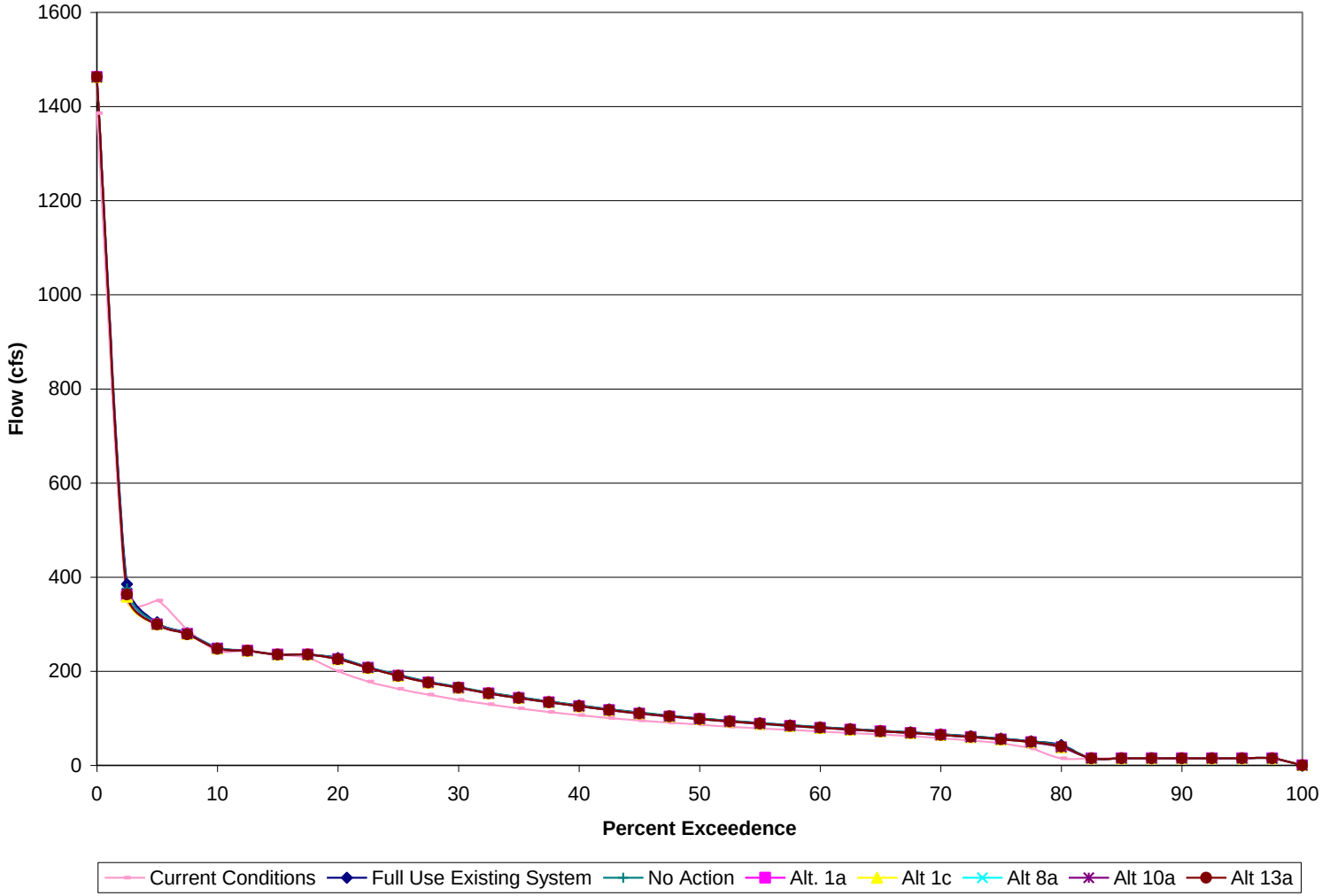


Figure H-5.15. Flow Duration Curve – Colorado River below Windy Gap Diversion

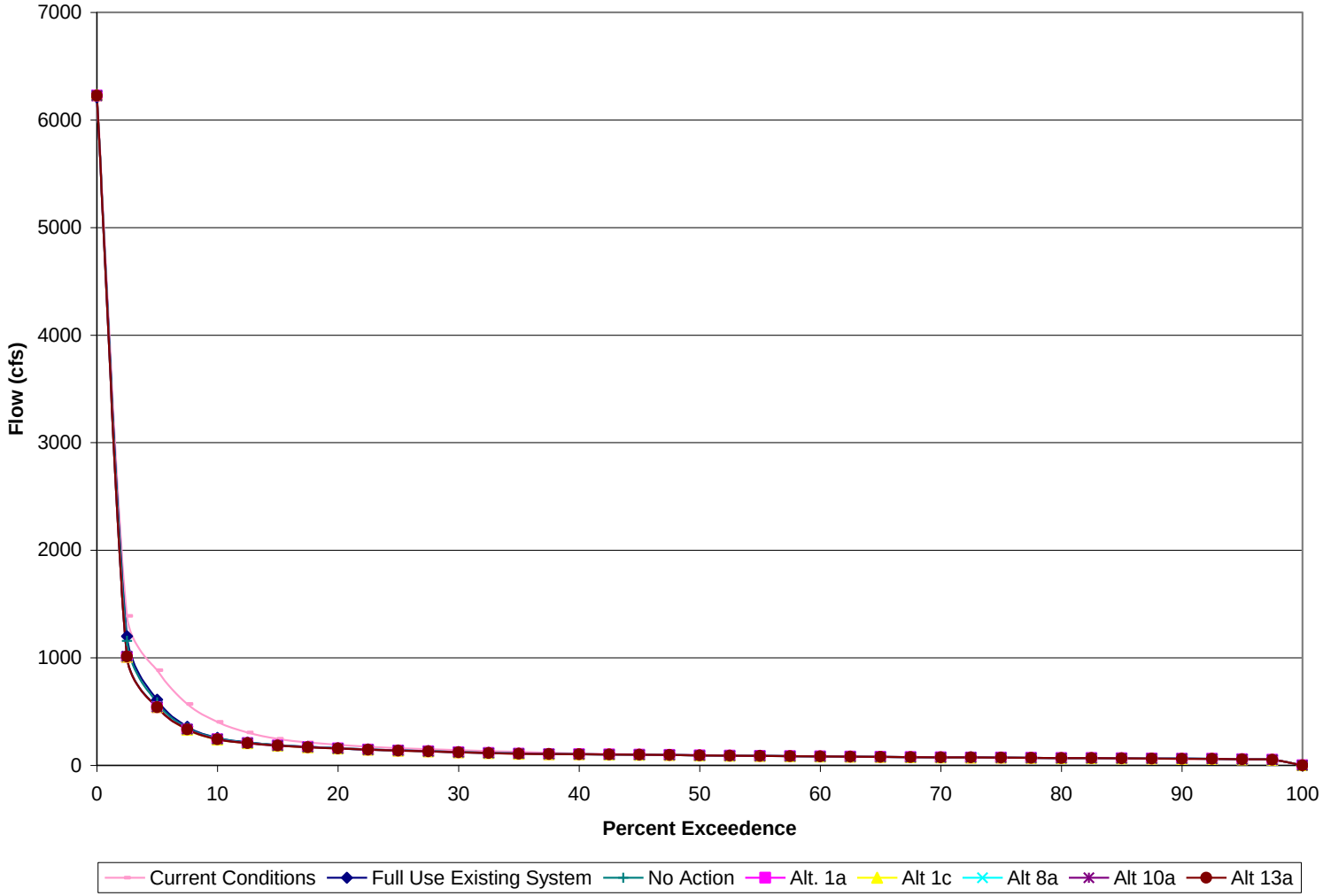


Figure H-5.16. Flow Duration Curve – Colorado River below the Confluence with Williams Fork River

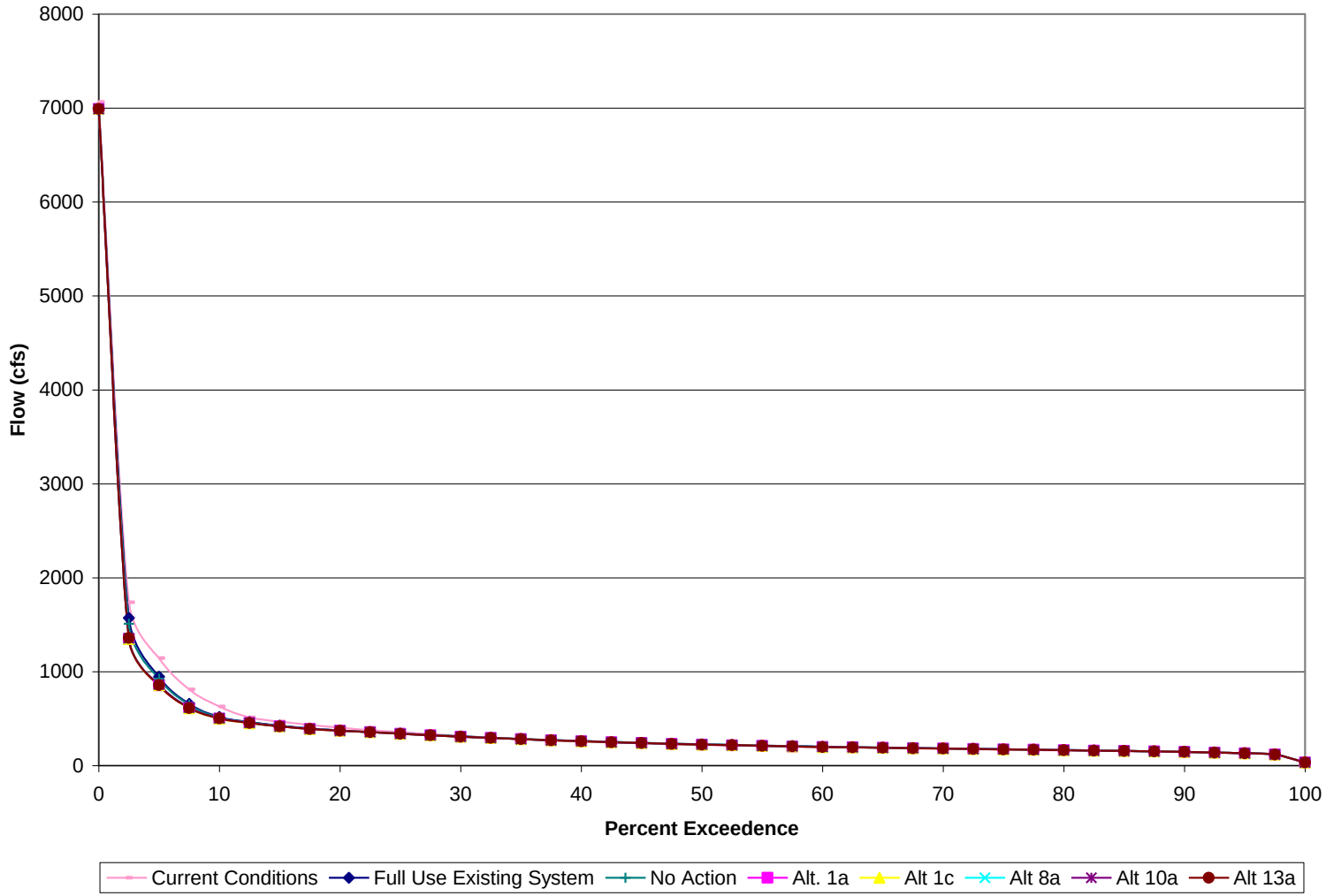


Figure H-5.17. Flow Duration Curve – Colorado River near Kremmling Gage

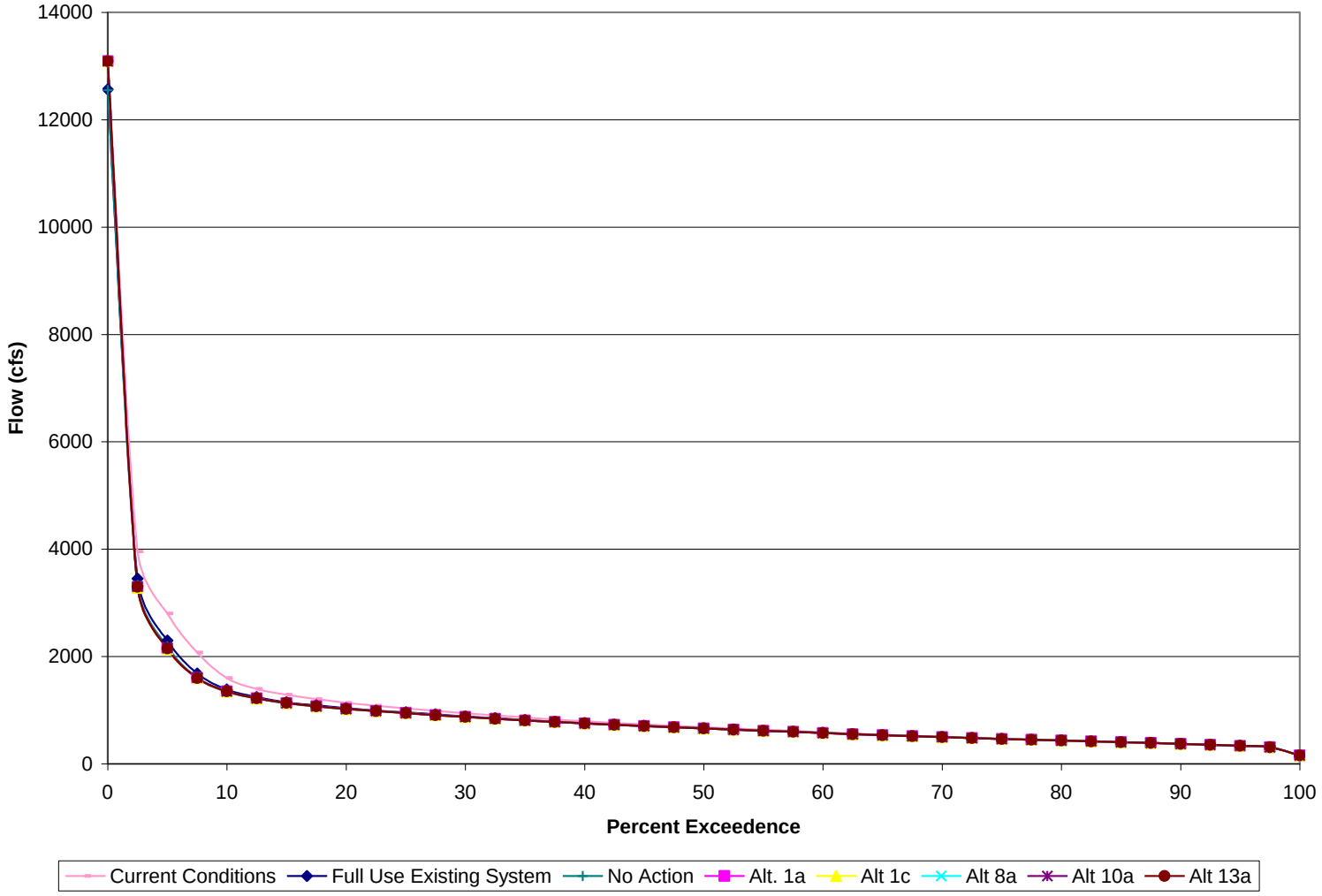


Figure H-5.18. Flow Duration Curve – Wolford Mountain Reservoir Outflow

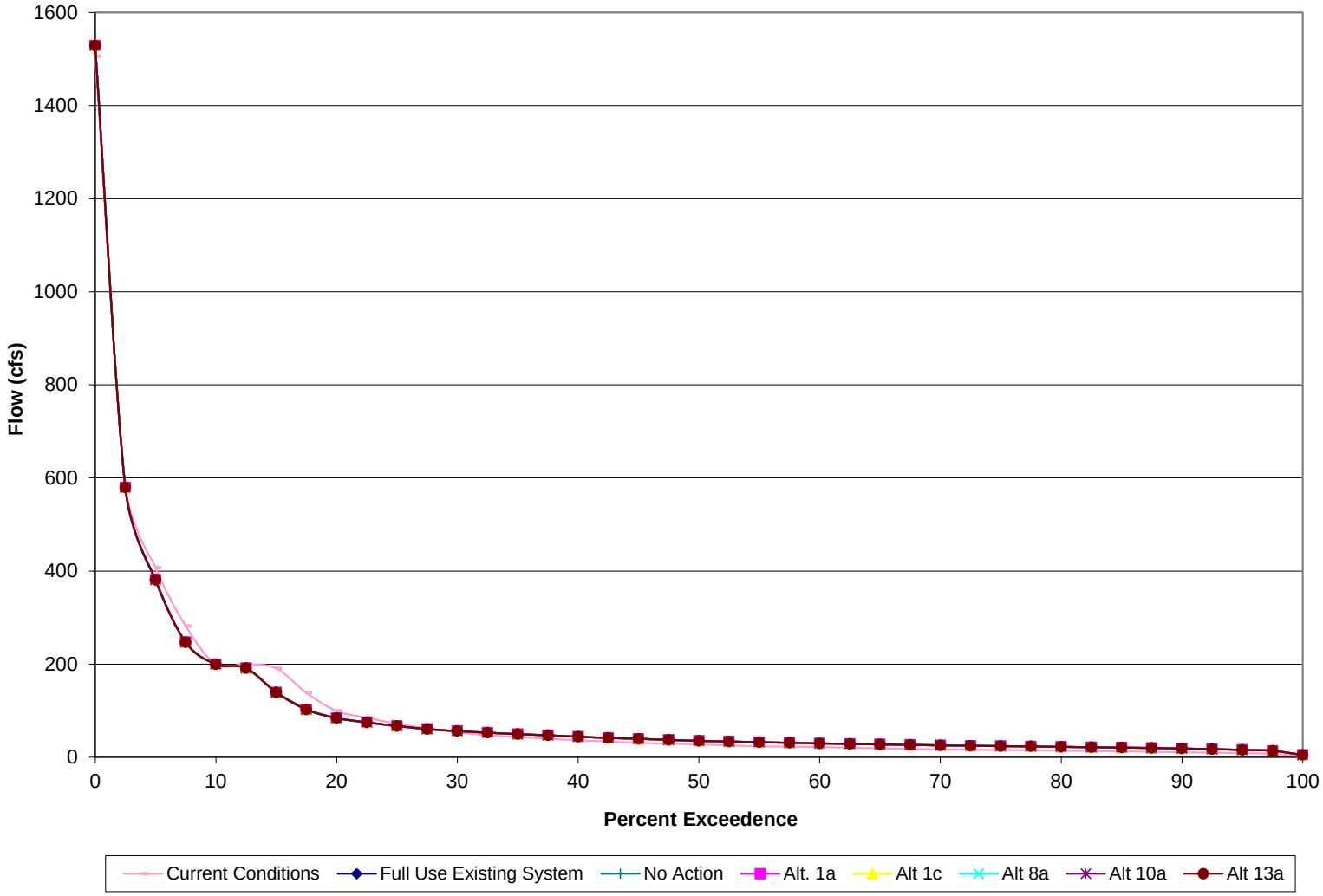


Figure H-5.19. Flow Duration Curve – Dillon Reservoir Outflow

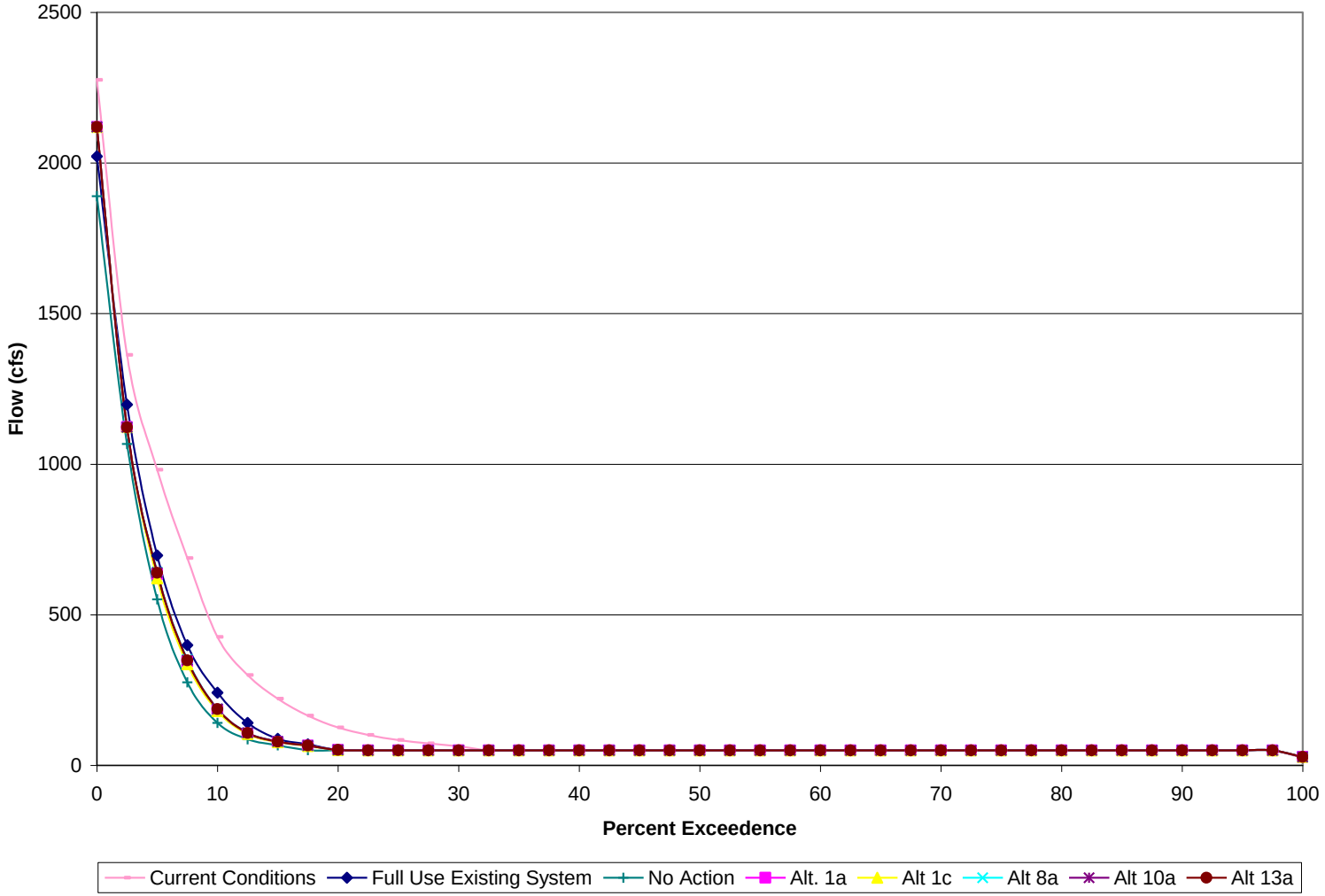


Figure H-5.20. Flow Duration Curve – Green Mountain Reservoir Outflow

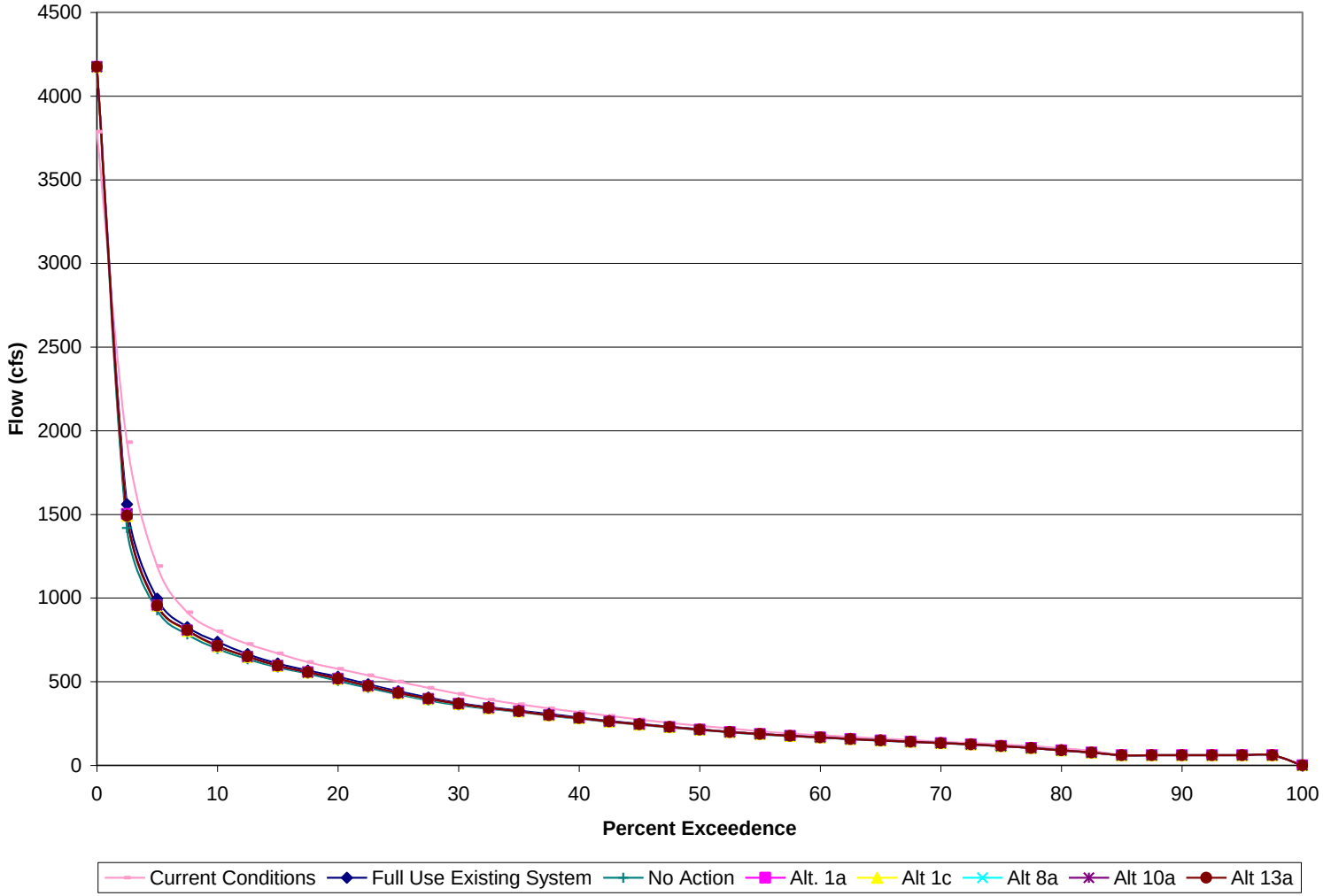


Figure H-5.21. Flow Duration Curve – South Boulder Creek at Pinecliffe Gage

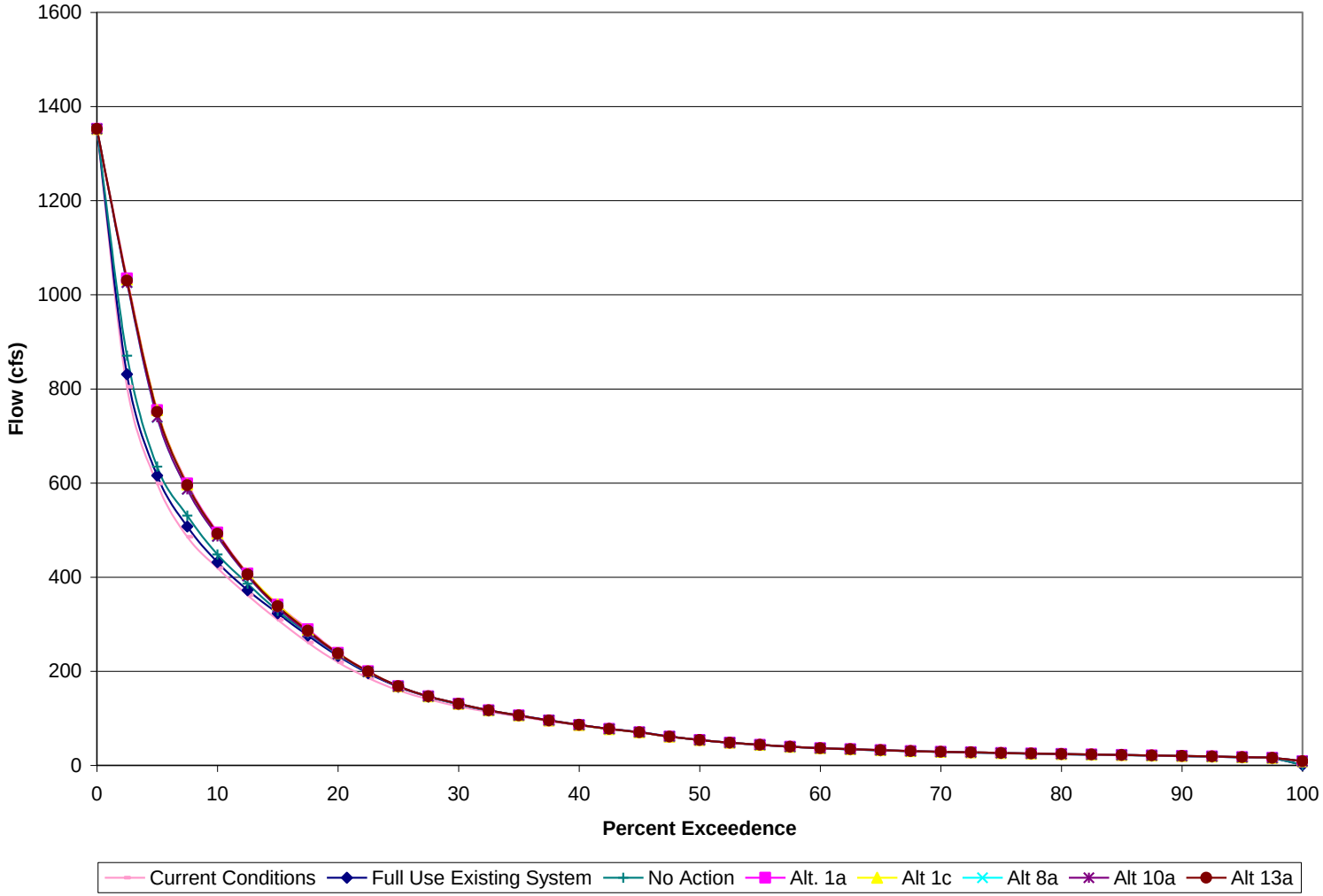


Figure H-5.22. Flow Duration Curve – Gross Reservoir Outflow

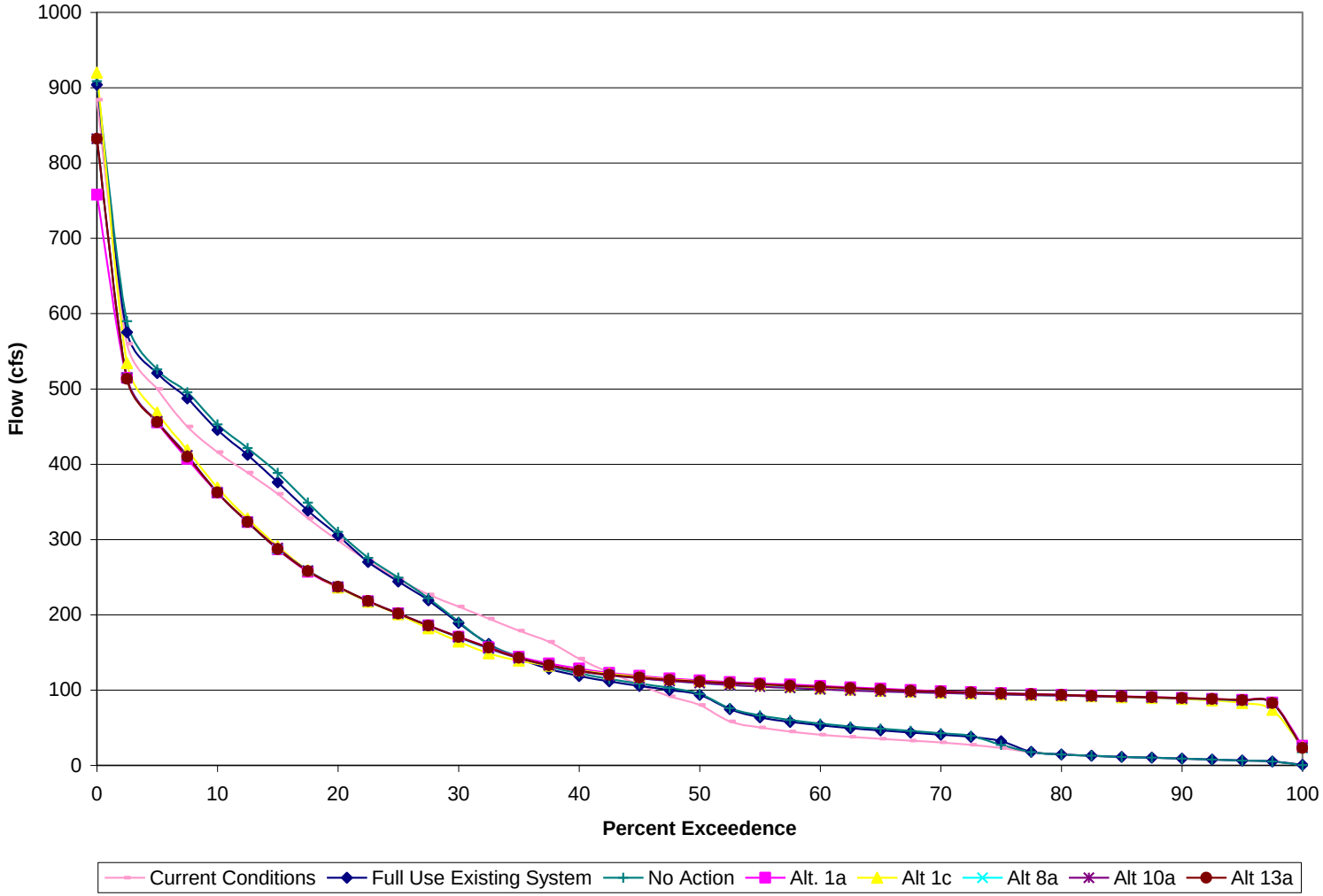


Figure H-5.23. Flow Duration Curve – South Boulder Creek near Eldorado Springs Gage

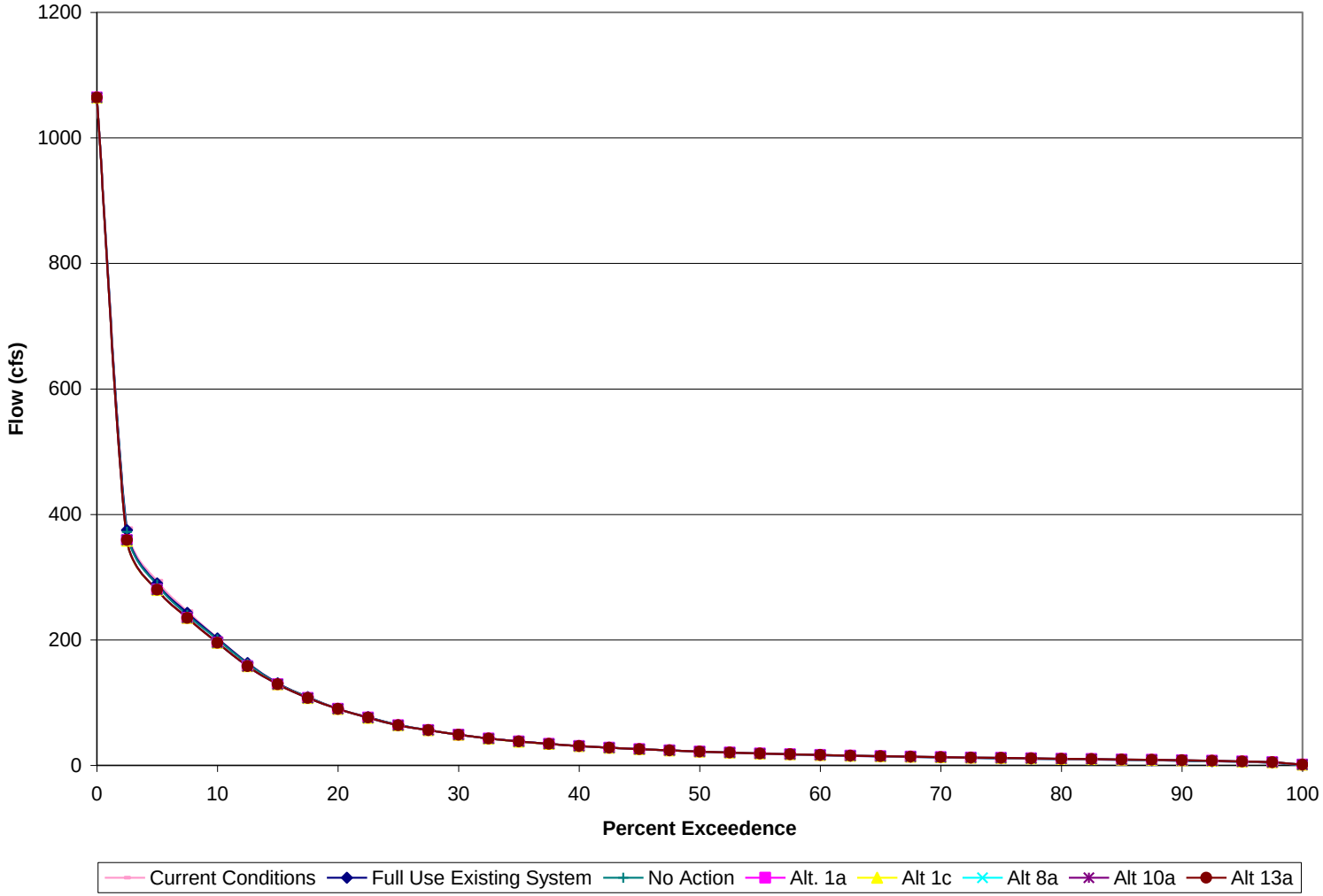


Figure H-5.24. Flow Duration Curve – North Fork South Platte below Geneva Creek Gage

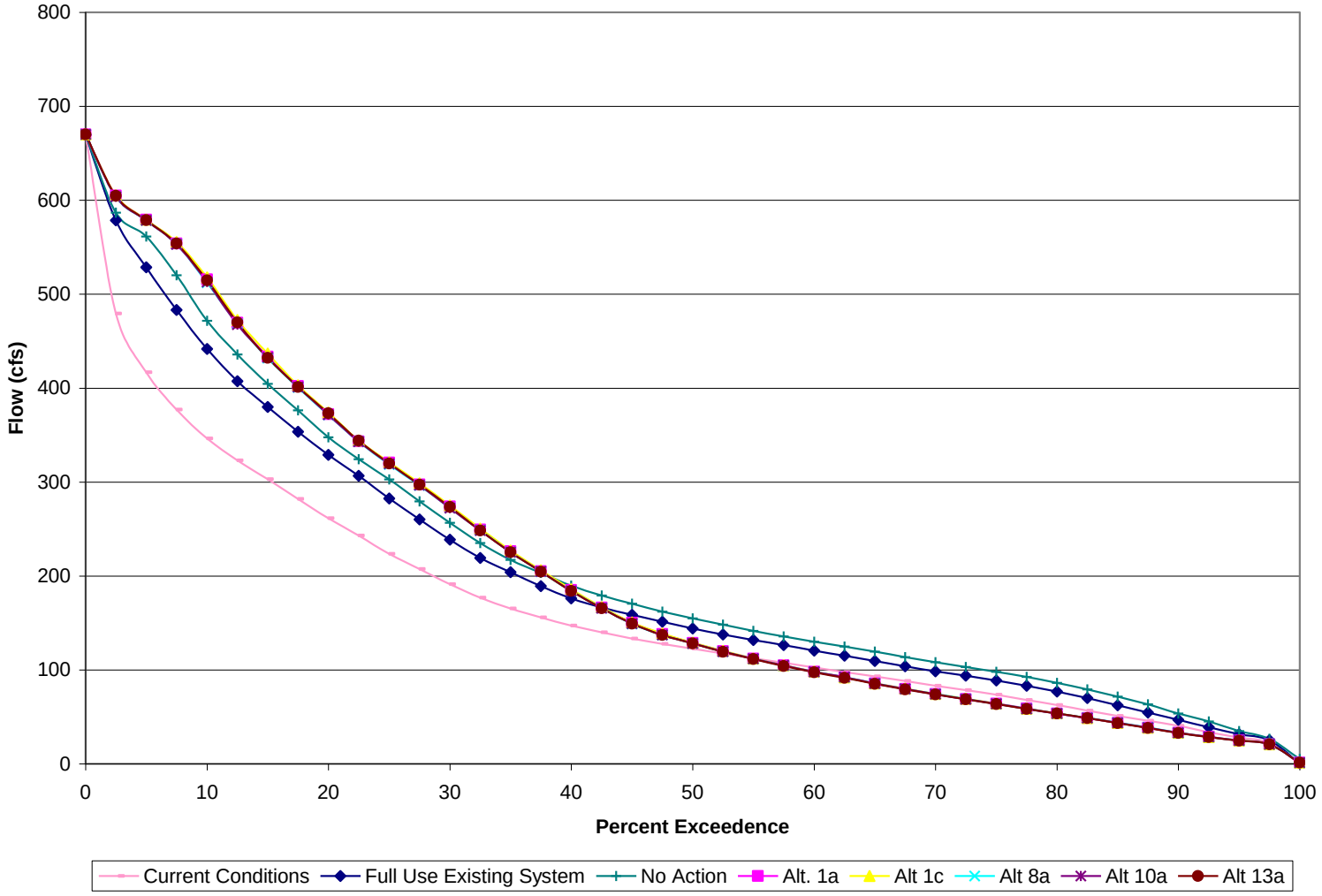


Figure H-5.25. Flow Duration Curve – Antero Reservoir Outflow

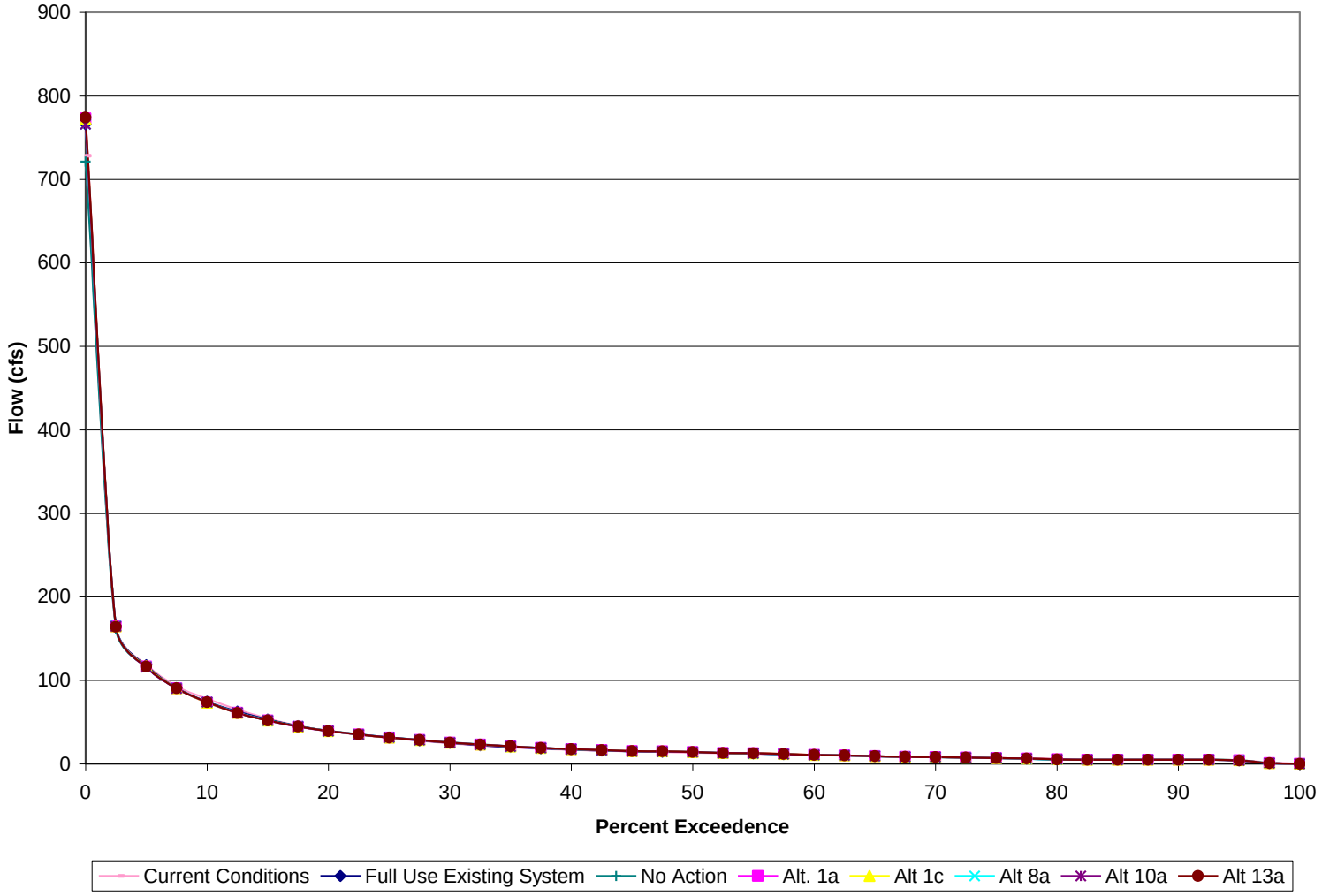


Figure H-5.26. Flow Duration Curve – Eleven Mile Reservoir Outflow

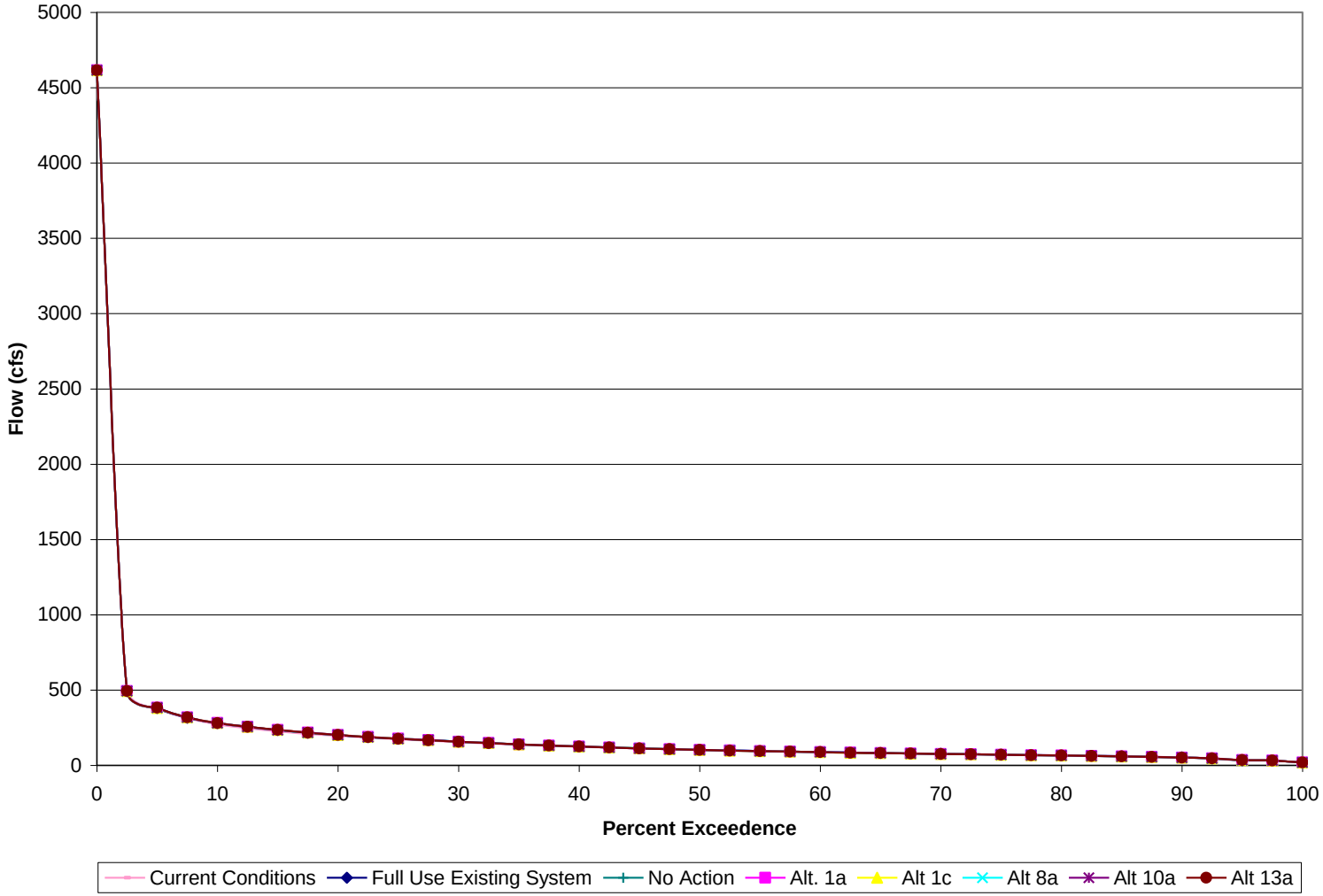


Figure H-5.27. Flow Duration Curve – Cheesman Reservoir Outflow

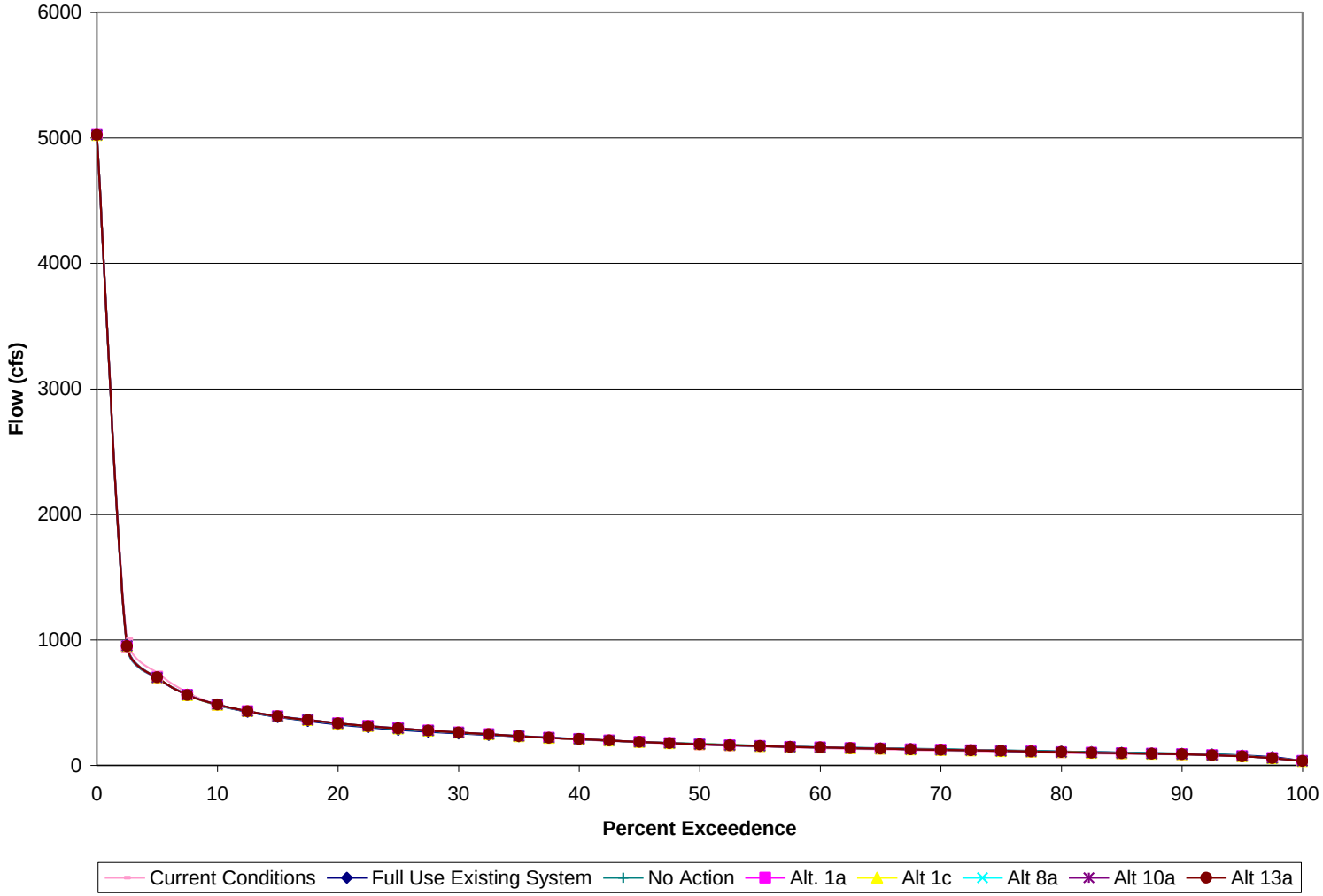


Figure H-5.28. Flow Duration Curve – South Platte River at Waterton Gage

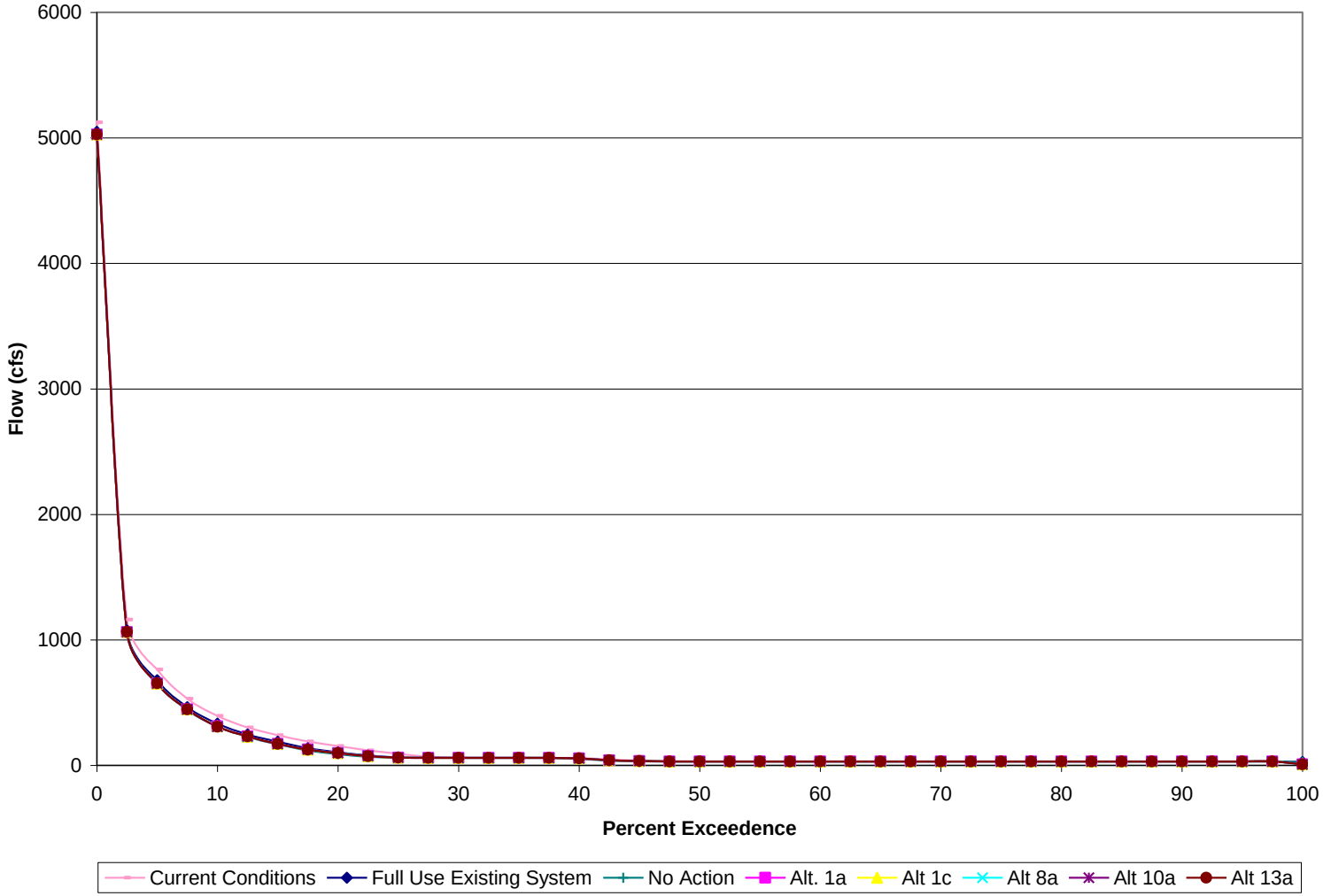


Figure H-5.29. Flow Duration Curve – South Platte River at Denver Gage

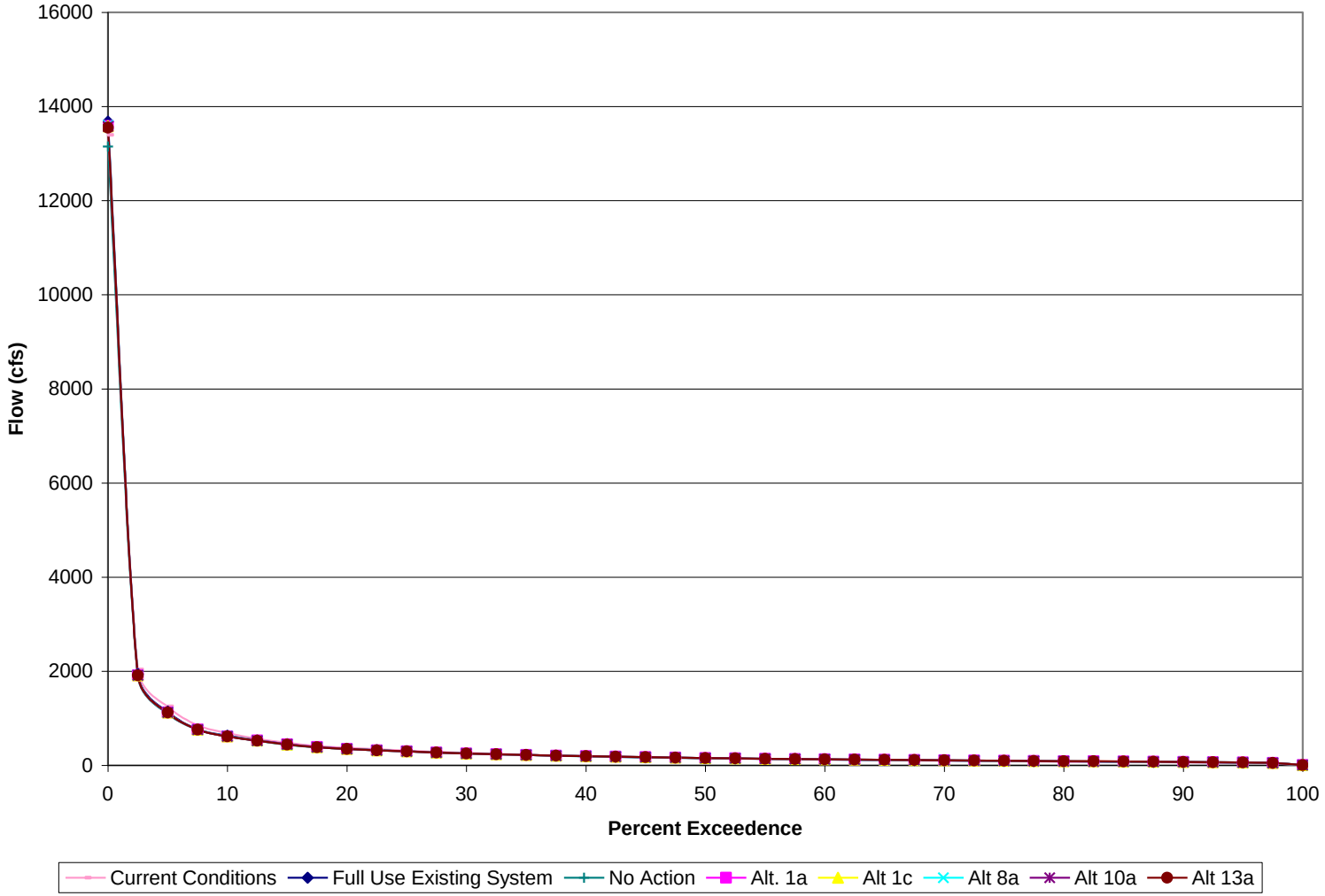
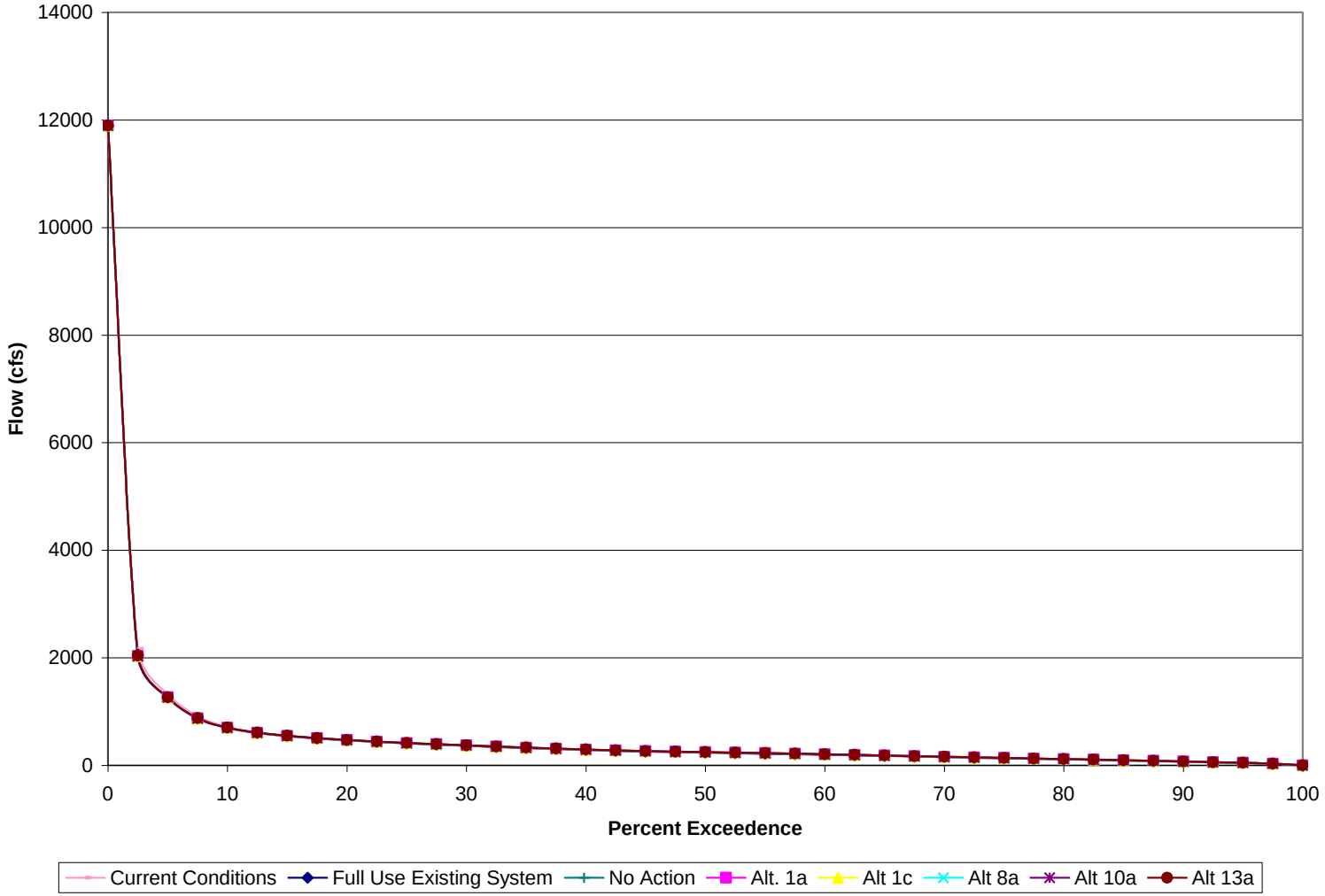


Figure H-5.30. Flow Duration Curve – South Platte River at Henderson Gage



Appendix H-6
Analysis of Daily Flow Changes

Daily Flow Change Tables

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- Table H-6.2 Daily Flow Changes in the Williams Fork River Basin Compared to Current Conditions
- Table H-6.3 Daily Flow Changes in the Colorado River Basin Compared to Current Conditions
- Table H-6.4 Daily Flow Changes in the Muddy Creek Basin Compared to Current Conditions
- Table H-6.5 Daily Flow Changes in the Blue River Basin Compared to Current Conditions
- Table H-6.6 Daily Flow Changes in the South Boulder Creek Basin Compared to Current Conditions
- Table H-6.7 Daily Flow Changes in the North Fork South Platte River Basin Compared to Current Conditions
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- Table H-6.9 Daily Changes in Diversions at the Moffat, Gumlick, and Roberts Tunnels Compared to Current Conditions
- Table H-6.10 Daily Flow Changes in the Fraser River Basin Compared to Full Use of the Existing System
- Table H-6.11 Daily Flow Changes in the Williams Fork River Basin Compared to Full Use of the Existing System
- Table H-6.12 Daily Flow Changes in the Colorado River Basin Compared to Full Use of the Existing System
- Table H-6.13 Daily Flow Changes in the Muddy Creek Basin Compared to Full Use of the Existing System
- Table H-6.14 Daily Flow Changes in the Blue River Basin Compared to Full Use of the Existing System
- Table H-6.15 Daily Flow Changes in the South Boulder Creek Basin Compared to Full Use of the Existing System
- Table H-6.16 Daily Flow Changes in the North Fork South Platte River Basin Compared to Full Use of the Existing System
- Table H-6.17 Daily Flow Changes in the South Platte River Basin Compared to Full Use of the Existing System

- Table H-6.18 Daily Changes in Diversions at the Moffat, Gumlick, and Roberts Tunnels Compared to Full Use of the Existing System
- Table H-6.19 Summary of Maximum Daily Flow Reductions Compared to Current Conditions
- Table H-6.20 Summary of Maximum Daily Flow Reductions Compared to Full Use of the Existing System

Daily Flow Change Figures

- Figure H-6.1 Daily Flows 1954-1957 below Denver Water's Diversion from the Fraser River
- Figure H-6.2 Daily Flows 1954-1957 below Denver Water's Diversion from Jim Creek
- Figure H-6.3 Daily Flows 1954-1957 below Denver Water's Diversion from Vasquez Creek
- Figure H-6.4 Daily Flows 1954-1957 below Denver Water's Diversion from St. Louis Creek
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- Figure H-6.6 Daily Flows 1954-1957 Fraser River below Crooked Creek
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- Figure H-6.10 Daily Flows 1954-1957 Dillon Reservoir Outflow

Table H-6.1. Daily Flow Changes in the Fraser River Basin Compared to Current Conditions

Below Denver Water's Fraser River Diversion (Node 2120)

Range and % Occurrence of Daily Flow Changes Compared to Current Conditions, May through July

	Percentage of Days in May through July Flow Changes Occur						
Daily Flow Change	Full Use	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 1 cfs	3.3%	2.3%	2.6%	2.3%	2.3%	2.3%	2.7%
Change of -1 to 1 cfs	80.7%	76.9%	76.3%	76.9%	77.0%	76.9%	79.8%
Decrease of 1 to 100 cfs	15.6%	16.4%	16.5%	16.6%	16.6%	16.4%	16.4%
Decrease of 100 to 199 cfs	0.4%	4.2%	4.3%	3.9%	3.8%	4.2%	1.2%
Decrease of > 200 cfs	0.0%	0.3%	0.3%	0.3%	0.3%	0.3%	0.0%

Below Denver Water's Jim Creek Diversion (Node 2160)

Range and % Occurrence of Daily Flow Changes Compared to Current Conditions, May through July

	Percentage of Days in May through July Flow Changes Occur						
Daily Flow Change	Full Use	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 1 cfs	3.0%	0.5%	1.1%	0.6%	0.6%	0.6%	2.1%
Change of -1 to 1 cfs	93.1%	92.3%	92.1%	92.3%	92.3%	92.3%	92.8%
Decrease of 1 to 19 cfs	1.9%	2.0%	1.7%	1.9%	1.9%	1.9%	2.0%
Decrease of 20 to 39 cfs	1.3%	2.4%	2.3%	2.4%	2.4%	2.4%	1.7%
Decrease of 40 to 59 cfs	0.5%	1.9%	1.7%	1.8%	1.8%	1.8%	1.1%
Decrease > 60 cfs	0.1%	1.0%	1.0%	1.0%	1.0%	1.0%	0.4%

Below Denver Water St. Louis Creek Tributary Diversions (Node 2180)

Range and % Occurrence of Daily Flow Changes Compared to Current Conditions, May through July

	Percentage of Days in May through July Flow Changes Occur						
Daily Flow Change	Full Use	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 1 cfs	1.2%	1.1%	1.5%	1.2%	1.1%	1.2%	0.7%
Change of -1 to 1 cfs	94.1%	85.0%	84.5%	86.0%	85.9%	85.3%	92.8%
Decrease of 1 to 19 cfs	1.6%	1.3%	1.4%	1.3%	1.3%	1.4%	1.7%
Decrease of 20 to 39 cfs	1.8%	4.3%	4.2%	4.0%	4.0%	4.0%	2.7%
Decrease of 40 to 59 cfs	0.9%	4.5%	4.6%	3.8%	3.9%	4.3%	1.4%
Decrease of 60 to 79 cfs	0.3%	2.5%	2.6%	2.4%	2.4%	2.5%	0.7%
Decrease of 80 to 99 cfs	0.0%	0.9%	0.9%	1.0%	0.9%	0.9%	0.1%
Decrease of 100 to 119 cfs	0.0%	0.3%	0.3%	0.3%	0.3%	0.3%	0.0%
Decrease > 120 cfs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Table H-6.1. Daily Flow Changes in the Fraser River Basin Compared to Current Conditions (continued)

St. Louis Creek near Fraser Gage (Node 2200)

Range and % Occurrence of Daily Flow Changes Compared to Current Conditions, May through July

	Percentage of Days in May through July FlowChanges Occur						
Daily FlowChange	Full Use	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 1 cfs	3.1%	2.7%	3.3%	2.7%	2.7%	2.7%	2.2%
Change of -1 to 1 cfs	81.3%	72.0%	71.4%	72.9%	72.9%	72.3%	79.7%
Decrease of 1 to 24 cfs	11.9%	11.8%	11.7%	11.9%	11.9%	11.8%	12.3%
Decrease of 25 to 49 cfs	1.7%	2.6%	2.4%	2.7%	2.6%	2.7%	2.5%
Decrease of 50 to 74 cfs	0.9%	2.3%	2.5%	2.0%	2.1%	2.1%	1.3%
Decrease of 75 to 99 cfs	0.6%	3.2%	3.3%	2.7%	2.8%	3.1%	1.0%
Decrease of 100 to 124 cfs	0.3%	2.4%	2.4%	2.1%	2.1%	2.3%	0.5%
Decrease of 125 to 149 cfs	0.2%	1.5%	1.6%	1.5%	1.5%	1.5%	0.4%
Decrease of 150 to 174 cfs	0.0%	0.7%	0.7%	0.7%	0.7%	0.7%	0.1%
Decrease of 174 to 199 cfs	0.0%	0.7%	0.7%	0.7%	0.7%	0.7%	0.1%
Decrease > 150 cfs	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%

Below Denver Water's Little Vasquez Creek Diversion (Node 2340)

Range and % Occurrence of Daily Flow Changes Compared to Current Conditions, May through July

	Percentage of Days in May through July FlowChanges Occur						
Daily FlowChange	Full Use	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 1 cfs	1.1%	0.4%	0.7%	0.5%	0.5%	0.5%	0.7%
Change of -1 to 1 cfs	95.0%	89.6%	89.2%	90.0%	90.0%	89.6%	94.2%
Decrease of 1 to 19 cfs	2.9%	5.0%	4.8%	4.7%	4.7%	4.8%	3.3%
Decrease of 20 to 39 cfs	0.8%	4.2%	4.4%	4.0%	4.0%	4.2%	1.4%
Decrease of 40 to 59 cfs	0.1%	0.6%	0.7%	0.6%	0.6%	0.6%	0.3%
Decrease > 60 cfs	0.1%	0.2%	0.3%	0.2%	0.2%	0.2%	0.1%

Vasquez Creek Gage (Node 2370)

Range and % Occurrence of Daily Flow Changes Compared to Current Conditions, May through July

	Percentage of Days in May through July FlowChanges Occur						
Daily FlowChange	Full Use	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 1 cfs	2.0%	1.2%	1.7%	1.4%	1.4%	1.3%	1.4%
Change of -1 to 1 cfs	0.2%	0.1%	0.2%	0.1%	0.1%	0.1%	0.1%
Decrease of 1 to 49 cfs	95.4%	87.6%	87.0%	88.2%	88.2%	87.9%	94.4%
Decrease of 50 to 99 cfs	1.4%	3.7%	3.8%	3.6%	3.6%	3.7%	2.2%
Decrease of 100 to 149 cfs	0.8%	3.9%	3.9%	3.7%	3.7%	3.7%	1.2%
Decrease of 150 to 199 cfs	0.2%	2.3%	2.2%	1.8%	1.8%	2.1%	0.6%
Decrease of 200 to 249 cfs	0.1%	0.8%	0.8%	0.7%	0.7%	0.8%	0.2%
Decrease of 250 to 299 cfs	0.0%	0.3%	0.3%	0.3%	0.3%	0.3%	0.0%
Decrease > 300 cfs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Table H-6.1. Daily Flow Changes in the Fraser River Basin Compared to Current Conditions (continued)

Below Denver Water's Englewood Ranch Gravity System Diversions (Node 2480)

Range and % Occurrence of Daily Flow Changes Compared to Current Conditions, May through July

	Percentage of Days in May through July Flow Changes Occur						
Daily Flow Change	Full Use	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 1 cfs	1.7%	1.6%	1.8%	1.7%	1.6%	1.6%	0.9%
Change of -1 to 1 cfs	94.2%	87.9%	87.5%	88.4%	88.5%	88.0%	93.5%
Decrease of 1 to 19 cfs	3.0%	6.7%	6.8%	6.4%	6.3%	6.7%	3.9%
Decrease of 20 to 39 cfs	1.2%	3.8%	3.8%	3.5%	3.5%	3.7%	1.8%
Decrease > 40 cfs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Below Denver Water's Main Ranch Creek Diversion (Node 2500)

Range and % Occurrence of Daily Flow Changes Compared to Current Conditions, May through July

	Percentage of Days in May through July Flow Changes Occur						
Daily Flow Change	Full Use	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 1 cfs	2.2%	2.0%	2.4%	2.1%	2.1%	2.1%	1.8%
Change of -1 to 1 cfs	91.8%	82.4%	82.1%	83.4%	83.4%	82.9%	90.3%
Decrease of 1 to 9 cfs	4.4%	5.7%	5.8%	5.5%	5.5%	5.5%	4.8%
Decrease of 10 to 19 cfs	1.0%	3.7%	3.7%	3.4%	3.5%	3.7%	1.6%
Decrease of 20 to 29 cfs	0.5%	3.1%	3.1%	2.9%	3.0%	3.0%	1.1%
Decrease > 30 cfs	0.2%	3.0%	2.9%	2.6%	2.6%	2.8%	0.4%

Fraser River near Winter Park Gage (Node 2580)

Range and % Occurrence of Daily Flow Changes Compared to Current Conditions, May through July

	Percentage of Days in May through July Flow Changes Occur						
Daily Flow Change	Full Use	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 1 cfs	4.7%	1.6%	2.6%	1.8%	1.7%	1.7%	3.3%
Change of -1 to 1 cfs	76.7%	75.5%	75.1%	75.5%	75.6%	75.6%	76.2%
Decrease of 1 to 49 cfs	16.5%	14.3%	13.6%	14.4%	14.4%	14.2%	16.5%
Decrease of 50 to 99 cfs	1.4%	3.0%	3.1%	3.0%	3.0%	3.1%	2.3%
Decrease of 100 to 149 cfs	0.5%	2.2%	2.2%	2.1%	2.1%	2.2%	0.9%
Decrease of 150 to 199 cfs	0.2%	1.7%	1.7%	1.6%	1.6%	1.7%	0.5%
Decrease of 200 to 249 cfs	0.1%	1.0%	1.1%	1.0%	1.0%	1.0%	0.2%
Decrease of 250 to 299 cfs	0.0%	0.5%	0.5%	0.5%	0.5%	0.5%	0.0%
Decrease > 300 cfs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Table H-6.1. Daily Flow Changes in the Fraser River Basin Compared to Current Conditions (continued)

Fraser River below St. Louis Creek (Node 2700)

Range and % Occurrence of Daily Flow Changes Compared to Current Conditions, May through July

	Percentage of Days in May through July Flow Changes Occur						
Daily Flow Change	Full Use	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 1 cfs	3.6%	1.9%	2.9%	2.1%	2.1%	2.1%	2.3%
Change of -1 to 1 cfs	0.7%	0.5%	0.5%	0.5%	0.5%	0.6%	0.5%
Decrease of 1 to 99 cfs	92.7%	84.7%	83.3%	85.5%	85.4%	84.9%	91.7%
Decrease of 100 to 199 cfs	2.4%	4.1%	4.2%	3.9%	4.0%	4.0%	3.4%
Decrease of 200 to 299 cfs	0.4%	2.8%	3.1%	2.6%	2.6%	2.7%	1.0%
Decrease of 300 to 399 cfs	0.1%	2.2%	2.2%	2.0%	2.0%	2.0%	0.4%
Decrease of 400 to 499 cfs	0.0%	1.9%	1.9%	1.6%	1.6%	2.0%	0.2%
Decrease of 500 to 599 cfs	0.1%	1.4%	1.4%	1.4%	1.4%	1.4%	0.3%
Decrease > 600 cfs	0.0%	0.5%	0.5%	0.5%	0.5%	0.5%	0.0%

Fraser River at Granby Gage (Node 2900)

Range and % Occurrence of Daily Flow Changes Compared to Current Conditions, May through July

	Percentage of Days in May through July Flow Changes Occur						
Daily Flow Change	Full Use	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 1 cfs	5.9%	4.2%	5.3%	4.5%	4.5%	4.4%	4.2%
Change of -1 to 1 cfs	2.6%	2.8%	2.7%	2.7%	2.7%	2.6%	2.7%
Decrease of 1 to 99 cfs	88.3%	78.8%	77.7%	79.6%	79.5%	79.3%	87.1%
Decrease of 100 to 199 cfs	2.3%	3.8%	3.6%	3.7%	3.7%	3.7%	3.8%
Decrease of 200 to 299 cfs	0.6%	2.6%	2.8%	2.3%	2.4%	2.4%	1.2%
Decrease of 300 to 399 cfs	0.1%	2.3%	2.3%	2.1%	2.1%	2.1%	0.4%
Decrease of 400 to 499 cfs	0.1%	2.3%	2.2%	2.1%	2.2%	2.3%	0.5%
Decrease of 500 to 599 cfs	0.0%	2.0%	2.0%	1.7%	1.7%	1.9%	0.2%
Decrease > 600 cfs	0.0%	1.3%	1.3%	1.3%	1.3%	1.3%	0.1%

Table H-6.2. Daily Flow Changes in the Williams Fork River Basin Compared to Current Conditions

Below Denver Water's Diversion on Steelman Creek (Node 3100)

Range and % Occurrence of Daily Flow Changes Compared to Current Conditions, May through July

	Percentage of Days in May through July FlowChanges Occur						
Daily FlowChange	Full Use	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 1 cfs	1.4%	1.0%	1.2%	1.0%	1.0%	1.0%	0.6%
Change of -1 to 1 cfs	85.9%	77.8%	77.5%	78.7%	78.8%	78.2%	85.0%
Decrease of 1 to 9 cfs	8.4%	9.0%	8.9%	9.0%	9.0%	9.0%	8.6%
Decrease of 10 to 19 cfs	3.2%	5.4%	5.7%	5.2%	5.1%	5.3%	3.9%
Decrease of 20 to 29 cfs	0.6%	3.1%	3.0%	2.8%	2.7%	3.0%	1.0%
Decrease of 30 to 39 cfs	0.3%	3.0%	3.0%	2.7%	2.7%	2.8%	0.7%
Decrease of 40 to 49 cfs	0.2%	0.6%	0.6%	0.6%	0.6%	0.6%	0.3%
Decrease > 50 cfs	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%

Williams Fork River below Steelman Creek (Node 3300)

Range and % Occurrence of Daily Flow Changes Compared to Current Conditions, May through July

	Percentage of Days in May through July FlowChanges Occur						
Daily FlowChange	Full Use	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 1 cfs	3.3%	2.7%	3.1%	2.8%	2.8%	2.7%	2.3%
Change of -1 to 1 cfs	80.9%	72.1%	71.7%	72.8%	72.9%	72.4%	79.7%
Decrease of 1 to 49 cfs	13.8%	15.1%	14.8%	15.1%	15.1%	15.1%	14.5%
Decrease of 50 to 99 cfs	1.3%	4.9%	5.1%	4.7%	4.6%	4.8%	2.1%
Decrease of 100 to 149 cfs	0.4%	3.7%	3.8%	3.3%	3.3%	3.6%	1.0%
Decrease > 150 cfs	0.3%	1.5%	1.5%	1.3%	1.3%	1.4%	0.4%

Williams Fork Reservoir Outflow (Node 3950)

Range and % Occurrence of Daily Flow Changes Compared to Current Conditions, May through July

	Percentage of Days in May through July FlowChanges Occur						
Daily FlowChange	Full Use	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 200 cfs	8.2%	7.5%	7.5%	7.6%	7.6%	6.8%	7.5%
Increase of 100 to 199 cfs	5.0%	5.1%	5.3%	5.2%	5.2%	5.4%	5.1%
Increase of 1 to 99 cfs	17.4%	15.5%	15.1%	16.0%	16.0%	16.1%	17.3%
Change of -1 to 1 cfs	65.1%	65.5%	65.5%	65.3%	65.3%	66.4%	65.3%
Decrease of 1 to 100 cfs	2.1%	2.2%	2.3%	1.8%	1.8%	1.8%	1.4%
Decrease of 100 to 199 cfs	0.3%	0.4%	0.4%	0.4%	0.4%	0.4%	0.3%
Decrease of 200 to 299 cfs	1.2%	2.6%	2.6%	2.5%	2.5%	1.9%	1.9%
Decrease of 300 to 399 cfs	0.2%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%
Decrease of 400 to 499 cfs	0.2%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%
Decrease of 500 to 599 cfs	0.1%	0.1%	0.2%	0.2%	0.2%	0.2%	0.1%
Decrease > 600 cfs	0.2%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%

Table H-6.3. Daily Flow Changes in the Colorado River Basin Compared to Current Conditions

Colorado River below Windy Gap (Node 1350)

Range and % Occurrence of Daily Flow Changes Compared to Current Conditions, May through July

	Percentage of Days in May through July FlowChanges Occur						
Daily FlowChange	Full Use	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 100 cfs	3.6%	2.3%	2.3%	2.4%	2.4%	2.4%	3.2%
Increase of 1 to 99 cfs	15.6%	16.0%	16.0%	16.4%	16.4%	16.2%	15.7%
Change of -1 to 1 cfs	17.1%	16.5%	16.6%	16.5%	16.5%	16.5%	16.7%
Decrease of 1 to 99 cfs	36.6%	34.6%	34.4%	34.2%	34.2%	34.3%	36.2%
Decrease of 100 to 199 cfs	7.9%	8.2%	8.2%	8.1%	8.1%	8.2%	8.0%
Decrease of 200 to 299 cfs	4.3%	4.9%	5.1%	5.0%	5.0%	5.0%	4.6%
Decrease of 300 to 399 cfs	3.6%	4.1%	4.3%	4.2%	4.2%	4.1%	3.8%
Decrease of 400 to 499 cfs	2.4%	2.3%	2.1%	2.2%	2.2%	2.3%	2.6%
Decrease of 500 to 999 cfs	8.6%	9.0%	9.1%	9.1%	9.1%	9.0%	8.8%
Decrease of 1000 to 1999 cfs	0.3%	2.0%	2.0%	1.9%	1.9%	2.0%	0.4%
Decrease > 2000 cfs	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%

Colorado River below the Confluence with the Williams Fork River (Node 1430)

Range and % Occurrence of Daily Flow Changes Compared to Current Conditions, May through July

	Percentage of Days in May through July FlowChanges Occur						
Daily FlowChange	Full Use	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 100 cfs	11.6%	8.8%	9.1%	9.0%	9.0%	8.8%	10.4%
Increase of 1 to 99 cfs	25.5%	25.0%	24.6%	25.1%	25.2%	25.1%	25.5%
Change of -1 to 1 cfs	12.8%	13.2%	13.3%	13.3%	13.2%	13.3%	13.1%
Decrease of 1 to 99 cfs	26.3%	24.0%	23.8%	24.0%	24.0%	24.2%	25.4%
Decrease of 100 to 199 cfs	5.7%	7.4%	7.4%	7.3%	7.3%	6.6%	6.1%
Decrease of 200 to 299 cfs	3.4%	3.9%	4.0%	3.8%	3.8%	3.9%	3.8%
Decrease of 300 to 399 cfs	4.3%	4.0%	4.0%	3.9%	3.9%	4.6%	4.3%
Decrease of 400 to 499 cfs	2.8%	2.9%	2.9%	3.0%	3.0%	2.9%	2.9%
Decrease of 500 to 999 cfs	7.5%	8.9%	8.9%	8.7%	8.7%	8.6%	8.1%
Decrease of 1000 to 1999 cfs	0.2%	1.9%	2.0%	1.8%	1.8%	1.9%	0.4%
Decrease > 2000 cfs	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%

Colorado River near Kremmling (Node 5020)

Range and % Occurrence of Daily Flow Changes Compared to Current Conditions, May through July

	Percentage of Days in May through July FlowChanges Occur						
Daily FlowChange	Full Use	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 100 cfs	7.6%	5.0%	5.2%	5.2%	5.1%	5.0%	5.5%
Increase of 1 to 99 cfs	22.1%	20.3%	20.0%	20.5%	20.5%	20.5%	20.6%
Change of -1 to 1 cfs	2.1%	2.1%	2.0%	2.1%	2.1%	2.0%	2.1%
Decrease of 1 to 99 cfs	32.7%	29.7%	29.8%	29.7%	29.7%	29.8%	31.3%
Decrease of 100 to 199 cfs	7.5%	9.1%	9.1%	9.0%	9.0%	8.7%	7.7%
Decrease of 200 to 299 cfs	5.4%	6.3%	6.4%	6.4%	6.4%	6.2%	6.2%
Decrease of 300 to 399 cfs	4.9%	5.1%	5.3%	5.3%	5.3%	6.0%	5.5%
Decrease of 400 to 499 cfs	3.5%	4.5%	4.3%	4.3%	4.4%	4.4%	4.2%
Decrease of 500 to 999 cfs	8.0%	9.7%	9.6%	9.4%	9.4%	9.4%	9.3%
Decrease of 1000 to 1999 cfs	4.3%	5.2%	5.1%	5.0%	5.0%	5.0%	4.6%
Decrease of 2000 to 2999 cfs	1.7%	2.5%	2.6%	2.5%	2.5%	2.5%	2.5%
Decrease > 3000 cfs	0.2%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%

Table H-6.4. Daily Flow Changes in the Muddy Creek Basin Compared to Current Conditions

Muddy Creek below Wolford Mountain Reservoir (Node 1600)

Range and % Occurrence of Daily Flow Changes Compared to Current Conditions

	Percentage of Days Flow Changes Occur						
Daily Flow Change	Full Use	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 200 cfs	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%
Increase of 100 to 199 cfs	1.2%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
Increase of 1 to 99 cfs	73.2%	73.2%	73.2%	73.2%	73.2%	73.2%	73.2%
Change of -1 to 1 cfs	7.1%	7.2%	7.2%	7.2%	7.2%	7.2%	7.2%
Decrease of 1 to 99 cfs	13.9%	13.9%	13.9%	13.9%	13.9%	13.9%	13.9%
Decrease of 100 to 199 cfs	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%
Decrease of 200 to 299 cfs	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%
Decrease of 300 to399 cfs	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Decrease of 400 to 499 cfs	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%
Decrease > 500 cfs	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%

Table H-6.5. Daily Flow Changes in the Blue River Basin Compared to Current Conditions

Dillon Reservoir Outflow (Node 4250)

Range and % Occurrence of Daily Flow Changes Compared to Current Conditions, April through October

	Percentage of Days in April through October FlowChanges Occur						
Daily FlowChange	Full Use	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 1000 cfs	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.1%
Increase of 500 to 999 cfs	0.6%	0.5%	0.5%	0.6%	0.6%	0.6%	0.4%
Increase of 250 to 499 cfs	0.6%	0.7%	0.7%	0.6%	0.6%	0.6%	0.5%
Increase of 100 to 249 cfs	1.1%	0.7%	0.7%	0.8%	0.7%	0.7%	0.7%
Increase of 1 to 99 cfs	4.7%	4.5%	4.4%	4.6%	4.5%	4.5%	3.3%
Change of -1 to 1 cfs	61.7%	61.7%	61.6%	61.8%	61.7%	61.8%	61.7%
Decrease of 1 to 99 cfs	16.7%	15.2%	15.3%	15.2%	15.2%	15.2%	15.3%
Decrease of 100 to 249 cfs	6.9%	7.7%	7.8%	7.7%	7.8%	7.7%	8.1%
Decrease of 250 to 499 cfs	2.3%	2.9%	3.0%	2.9%	2.9%	2.9%	3.4%
Decrease of 500 to 999 cfs	3.0%	3.4%	3.4%	3.3%	3.4%	3.4%	3.7%
Decrease of 1000 to 1500 cfs	1.9%	2.0%	1.9%	2.0%	1.9%	1.9%	2.2%
Decrease > 1500 cfs	0.3%	0.5%	0.5%	0.5%	0.5%	0.5%	0.6%

Green Mountain Reservoir Outflow (Node 4650)

Range and % Occurrence of Daily Flow Changes Compared to Current Conditions, April through October

	Percentage of Days in April through October FlowChanges Occur						
Daily FlowChange	Full Use	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 1000 cfs	0.1%	0.0%	0.0%	0.1%	0.1%	0.1%	0.0%
Increase of 500 to 999 cfs	0.4%	0.3%	0.2%	0.3%	0.3%	0.3%	0.3%
Increase of 250 to 499 cfs	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.5%
Increase of 100 to 249 cfs	1.6%	1.6%	1.6%	1.5%	1.5%	1.5%	1.3%
Increase of 1 to 99 cfs	20.2%	20.2%	20.2%	19.8%	19.8%	20.0%	19.0%
Change of -1 to 1 cfs	40.8%	40.0%	40.1%	39.8%	39.8%	40.0%	40.2%
Decrease of 1 to 99 cfs	24.4%	22.9%	22.8%	23.6%	23.5%	23.2%	23.6%
Decrease of 100 to 249 cfs	5.3%	6.1%	6.1%	6.1%	6.1%	6.1%	5.9%
Decrease of 250 to 499 cfs	3.0%	4.2%	4.2%	4.1%	4.1%	4.2%	4.3%
Decrease of 500 to 999 cfs	1.5%	1.9%	1.9%	1.8%	1.8%	1.8%	2.0%
Decrease of 1000 to 2000 cfs	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.8%
Decrease of 2000 to 3000 cfs	0.6%	0.7%	0.7%	0.7%	0.7%	0.7%	0.8%
Decrease > 3000 cfs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%

Table H-6.6. Daily Flow Changes in the South Boulder Creek Basin Compared to Current Conditions

South Boulder Creek at Pinecliffe Gage (Node 57120)

Range and % Occurrence of Daily Flow Changes Compared to Current Conditions

	Percentage of Days in May through July FlowChanges Occur						
Daily FlowChange	Full Use	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 500 cfs	0.2%	5.5%	5.5%	5.0%	5.0%	5.4%	0.9%
Increase of 400 to 499 cfs	0.2%	2.0%	2.0%	1.7%	1.7%	1.9%	0.5%
Increase of 300 to 399 cfs	0.5%	2.4%	2.5%	2.1%	2.2%	2.1%	0.7%
Increase of 200 to 299 cfs	0.7%	2.0%	2.3%	1.9%	1.9%	1.9%	1.3%
Increase of 100 to 199 cfs	2.4%	3.2%	2.9%	3.3%	3.3%	3.4%	3.4%
Increase of 1 to 99 cfs	60.4%	53.7%	51.9%	54.2%	54.2%	53.8%	60.3%
Change of -1 to 1 cfs	28.9%	26.6%	27.2%	26.7%	26.7%	26.7%	28.2%
Decrease of 1 to 99 cfs	5.6%	3.9%	4.6%	4.1%	4.1%	3.9%	4.2%
Decrease of 100 to 199 cfs	0.6%	0.7%	0.9%	0.7%	0.7%	0.8%	0.4%
Decrease > 200 cfs	0.6%	0.1%	0.2%	0.1%	0.1%	0.1%	0.2%

Gross Reservoir Outflow (Node 57140)

Range and % Occurrence of Daily Flow Changes Compared to Current Conditions

	Percentage of Days FlowChanges Occur						
Daily FlowChange	Full Use	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 300 cfs	0.6%	0.0%	0.3%	0.0%	0.0%	0.0%	0.8%
Increase of 200 to 299 cfs	0.4%	0.2%	0.5%	0.2%	0.2%	0.2%	0.6%
Increase of 100 to 199 cfs	1.8%	4.4%	2.9%	1.7%	1.7%	4.0%	2.4%
Increase of 1 to 99 cfs	46.8%	65.3%	65.7%	67.9%	67.9%	65.6%	45.6%
Change of -1 to 1 cfs	28.1%	1.2%	1.4%	1.3%	1.2%	1.3%	27.8%
Decrease of 1 to 99 cfs	20.0%	19.3%	19.6%	19.7%	19.7%	19.6%	20.6%
Decrease of 100 to 199 cfs	2.2%	6.6%	6.5%	6.2%	6.2%	6.2%	2.1%
Decrease of 200 to 299 cfs	0.1%	1.4%	1.8%	1.5%	1.5%	1.6%	0.1%
Decrease of 300 to 399	0.1%	0.4%	0.4%	0.3%	0.3%	0.4%	0.0%
Decrease > 400 cfs	0.0%	1.1%	1.0%	1.1%	1.1%	1.1%	0.1%

South Boulder Creek near Eldorado Springs Gage (Node 57180)

Range and % Occurrence of Daily Flow Changes Compared to Current Conditions

	Percentage of Days in May through July FlowChanges Occur						
Daily FlowChange	Full Use	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 1 cfs	8.4%	9.1%	10.3%	8.6%	8.7%	8.8%	10.1%
Change of -1 to 1 cfs	83.7%	71.6%	69.6%	71.5%	71.6%	71.5%	82.5%
Decrease of 1 to 99 cfs	7.5%	16.6%	17.1%	17.1%	17.0%	17.0%	6.6%
Decrease of 100 to 199 cfs	0.2%	1.0%	1.2%	1.0%	1.0%	1.0%	0.3%
Decrease of 200 to 299 cfs	0.0%	0.8%	0.8%	0.8%	0.8%	0.8%	0.1%
Decrease of 300 to 399 cfs	0.1%	0.5%	0.5%	0.5%	0.5%	0.5%	0.1%
Decrease > 400 cfs	0.1%	0.4%	0.4%	0.4%	0.4%	0.4%	0.2%

Table H-6.7. Daily Flow Changes in the North Fork South Platte River Basin Compared to Current Conditions

North Fork South Platte Below Geneva Creek Gage (50700)

Range and % Occurrence of Daily Flow Changes Compared to Current Conditions

	Percentage of Days FlowChanges Occur						
Daily FlowChange	Full Use	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 500 cfs	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%
Increase of 400 to 499 cfs	0.1%	0.8%	0.8%	0.7%	0.7%	0.8%	0.3%
Increase of 300 to 399 cfs	0.6%	2.2%	2.2%	2.1%	2.1%	2.1%	1.3%
Increase of 200 to 299 cfs	3.3%	7.0%	7.1%	6.9%	6.9%	7.0%	5.2%
Increase of 100 to 199 cfs	10.3%	11.9%	11.9%	11.9%	11.9%	11.8%	11.6%
Increase of 1 to 99 cfs	56.6%	30.4%	30.3%	30.6%	30.4%	30.0%	57.2%
Change of -1 to 1 cfs	10.6%	10.3%	10.4%	10.4%	10.5%	10.6%	9.4%
Decrease of 1 to 99 cfs	17.3%	35.8%	35.6%	35.8%	35.7%	36.0%	14.0%
Decrease of 100 to 199 cfs	1.0%	1.3%	1.3%	1.3%	1.3%	1.3%	0.7%
Decrease > 200 cfs	0.2%	0.3%	0.3%	0.2%	0.2%	0.2%	0.3%

North Fork South Platte Above Pine (50750)

Range and % Occurrence of Daily Flow Changes Compared to Current Conditions

	Percentage of Days FlowChanges Occur						
Daily FlowChange	Full Use	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 400 cfs	0.0%	0.5%	0.5%	0.5%	0.5%	0.5%	0.2%
Increase of 300 to 399 cfs	0.5%	1.9%	2.0%	1.8%	1.8%	1.9%	1.1%
Increase of 200 to 299 cfs	2.8%	7.2%	7.3%	7.1%	7.1%	7.1%	5.1%
Increase of 100 to 199 cfs	10.8%	12.8%	12.8%	12.8%	12.8%	12.8%	12.1%
Increase of 1 to 99 cfs	58.9%	31.0%	31.0%	31.0%	31.0%	30.7%	59.4%
Change of -1 to 1 cfs	8.8%	8.7%	8.7%	9.0%	8.9%	8.8%	8.0%
Decrease of 1 to 99 cfs	17.1%	36.5%	36.3%	36.5%	36.5%	36.8%	13.4%
Decrease of 100 to 199 cfs	0.8%	1.2%	1.2%	1.1%	1.1%	1.1%	0.6%
Decrease > 200 cfs	0.2%	0.3%	0.3%	0.2%	0.2%	0.2%	0.2%

Table H-6.8. Daily Flow Changes in the South Platte River Basin Compared to Current Conditions

Antero Reservoir Outflow (Node 50150)

Range and % Occurrence of Daily Flow Changes Compared to Current Conditions

	Percentage of Days Flow Changes Occur						
Daily Flow Change	Full Use	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 200 cfs	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%
Increase of 100 to 199 cfs	0.1%	0.2%	0.2%	0.2%	0.2%	0.2%	0.3%
Increase of 1 to 99 cfs	12.8%	15.0%	14.9%	14.8%	14.9%	15.1%	15.9%
Change of -1 to 1 cfs	75.4%	70.9%	70.9%	71.1%	71.0%	70.5%	68.9%
Decrease of 1 to 99 cfs	11.3%	13.3%	13.4%	13.4%	13.4%	13.6%	14.1%
Decrease of 100 to 199 cfs	0.2%	0.3%	0.3%	0.3%	0.3%	0.3%	0.5%
Decrease > 200 cfs	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%

Eleven Mile Reservoir Outflow (Node 50300)

Range and % Occurrence of Daily Flow Changes Compared to Current Conditions

	Percentage of Days Flow Changes Occur						
Daily Flow Change	Full Use	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 200 cfs	0.3%	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%
Increase of 100 to 199 cfs	1.0%	1.3%	1.4%	1.2%	1.3%	1.2%	1.6%
Increase of 1 to 99 cfs	30.9%	31.6%	31.4%	31.4%	31.5%	31.5%	33.0%
Change of -1 to 1 cfs	40.7%	37.8%	37.9%	38.0%	38.0%	37.9%	35.5%
Decrease of 1 to 99 cfs	25.6%	27.3%	27.2%	27.3%	27.3%	27.4%	27.5%
Decrease of 100 to 199 cfs	0.8%	0.9%	1.0%	1.0%	1.0%	0.9%	1.1%
Decrease of 200 to 299 cfs	0.2%	0.3%	0.3%	0.3%	0.3%	0.3%	0.4%
Decrease of 300 to 399 cfs	0.1%	0.1%	0.2%	0.2%	0.1%	0.2%	0.2%
Decrease of 400 to 499 cfs	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Decrease of 500 to 599 cfs	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Decrease > 600 cfs	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%

Cheesman Reservoir Outflow (Node 50450)

Range and % Occurrence of Daily Flow Changes Compared to Current Conditions

	Percentage of Days Flow Changes Occur						
Daily Flow Change	Full Use	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 200 cfs	1.1%	1.6%	1.6%	1.6%	1.6%	1.6%	1.4%
Increase of 100 to 199 cfs	3.3%	4.3%	4.3%	4.3%	4.3%	4.2%	4.2%
Increase of 1 to 99 cfs	51.7%	43.4%	43.5%	43.2%	43.2%	43.4%	52.8%
Change of -1 to 1 cfs	6.7%	9.9%	10.0%	10.1%	9.9%	9.7%	5.7%
Decrease of 1 to 99 cfs	32.5%	35.8%	35.7%	35.8%	36.0%	36.1%	30.3%
Decrease of 100 to 199 cfs	2.9%	3.1%	3.1%	3.1%	3.1%	3.1%	3.4%
Decrease of 200 to 299 cfs	0.8%	0.9%	0.9%	0.9%	0.9%	0.9%	1.0%
Decrease of 300 to 399 cfs	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%
Decrease of 400 to 499 cfs	0.3%	0.2%	0.2%	0.2%	0.2%	0.2%	0.3%
Decrease of 500 to 599 cfs	0.1%	0.3%	0.2%	0.3%	0.3%	0.2%	0.2%
Decrease > 600 cfs	0.1%	0.1%	0.2%	0.1%	0.1%	0.1%	0.2%

Table H-6.8. Daily Flow Changes in the South Platte River Basin Compared to Current Conditions (continued)

South Platte at Waterton Gage (Node 51200)

Range and % Occurrence of Daily Flow Changes Compared to Current Conditions

	Percentage of Days Flow Changes Occur						
Daily Flow Change	Full Use	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 200 cfs	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.2%
Increase of 100 to 199 cfs	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%
Increase of 1 to 99 cfs	7.2%	7.5%	7.4%	7.4%	7.3%	7.4%	5.9%
Change of -1 to 1 cfs	64.8%	64.5%	64.6%	64.7%	64.7%	64.6%	64.9%
Decrease of 1 to 99 cfs	21.7%	19.5%	19.5%	19.5%	19.5%	19.5%	20.5%
Decrease of 100 to 199 cfs	3.6%	5.3%	5.3%	5.2%	5.3%	5.2%	5.3%
Decrease of 200 to 299 cfs	1.0%	1.2%	1.3%	1.3%	1.3%	1.2%	1.4%
Decrease of 300 to 399 cfs	0.5%	0.5%	0.5%	0.5%	0.5%	0.6%	0.6%
Decrease of 400 to 499 cfs	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Decrease of 500 to 599 cfs	0.1%	0.1%	0.1%	0.1%	0.2%	0.1%	0.2%
Decrease > 600 cfs	0.1%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%

South Platte at Denver Gage (Node 51540)

Range and % Occurrence of Daily Flow Changes Compared to Current Conditions

	Percentage of Days Flow Changes Occur						
Daily Flow Change	Full Use	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 200 cfs	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.2%
Increase of 100 to 199 cfs	1.0%	0.9%	0.9%	0.9%	0.9%	0.9%	0.8%
Increase of 1 to 99 cfs	61.5%	62.8%	62.7%	62.7%	62.9%	62.6%	60.0%
Change of -1 to 1 cfs	3.8%	2.3%	2.3%	2.4%	2.3%	2.3%	3.5%
Decrease of 1 to 99 cfs	28.1%	26.7%	26.8%	26.7%	26.7%	26.7%	28.2%
Decrease of 100 to 199 cfs	3.3%	4.7%	4.7%	4.7%	4.7%	4.8%	4.7%
Decrease of 200 to 299 cfs	1.4%	1.5%	1.6%	1.5%	1.5%	1.6%	1.6%
Decrease of 300 to 399 cfs	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.4%
Decrease of 400 to 499 cfs	0.1%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Decrease of 500 to 599 cfs	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Decrease > 600 cfs	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.3%

South Platte at Henderson Gage (Node 58440)

Range and % Occurrence of Daily Flow Changes Compared to Current Conditions

	Percentage of Days Flow Changes Occur						
Daily Flow Change	Full Use	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 200 cfs	0.4%	0.7%	0.7%	0.7%	0.7%	0.8%	0.5%
Increase of 100 to 199 cfs	1.8%	2.4%	2.4%	2.2%	2.2%	2.6%	2.1%
Increase of 1 to 99 cfs	45.4%	51.0%	50.9%	48.4%	49.8%	52.3%	47.7%
Change of -1 to 1 cfs	9.5%	9.1%	9.1%	9.2%	9.3%	8.3%	9.0%
Decrease of 1 to 99 cfs	38.1%	31.5%	31.6%	34.2%	32.7%	30.7%	35.6%
Decrease of 100 to 199 cfs	2.5%	2.9%	2.9%	2.8%	2.8%	2.9%	2.7%
Decrease of 200 to 299 cfs	0.6%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%
Decrease of 300 to 399 cfs	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%
Decrease of 400 to 499 cfs	0.4%	0.3%	0.3%	0.4%	0.4%	0.4%	0.4%
Decrease of 500 to 599 cfs	0.5%	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%
Decrease > 600 cfs	0.5%	0.5%	0.5%	0.5%	0.5%	0.4%	0.5%

Table H-6.9. Daily Changes in Diversions at the Moffat, Gumlick, and Roberts Tunnels Compared to Current Conditions

Moffat Tunnel

Range and % Occurrence of Daily Changes in Diversions Compared to Current Conditions, May through July

	Percentage of Days in May through July Changes in Diversions Occur						
Daily Diversion Change	Full Use	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 200 cfs	1.5%	11.9%	12.2%	10.8%	10.8%	11.3%	3.3%
Increase of 100 to 199 cfs	2.4%	3.1%	2.9%	3.3%	3.3%	3.5%	3.4%
Increase of 1 to 99 cfs	60.0%	53.4%	51.4%	53.7%	53.7%	53.2%	59.7%
Change of -1 to 1 cfs	29.3%	26.9%	27.7%	27.2%	27.2%	27.2%	28.9%
Decrease of 1 to 99 cfs	5.5%	4.0%	4.6%	4.2%	4.1%	4.0%	4.2%
Decrease of 100 to 199 cfs	0.6%	0.6%	0.9%	0.7%	0.7%	0.8%	0.4%
Decrease > 200 cfs	0.6%	0.1%	0.2%	0.1%	0.1%	0.1%	0.2%

Note: The maximum daily increase in diversions is 678 cfs for Full Use, 852 cfs for Alternatives 1a, 1c, 8a, 10a, and 13a, and 755 cfs for No Action.

Gumlick Tunnel

Range and % Occurrence of Daily Changes in Diversions Compared to Current Conditions, May through July

	Percentage of Days in May through July Changes in Diversions Occur						
Daily Diversion Change	Full Use	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 100 cfs	0.2%	1.3%	1.3%	1.2%	1.2%	1.3%	0.4%
Increase of 1 to 99 cfs	5.4%	8.0%	7.9%	7.7%	7.6%	7.8%	5.7%
Change of -1 to 1 cfs	93.7%	90.0%	90.0%	90.5%	90.5%	90.2%	93.4%
Decrease of 1 to 99 cfs	0.8%	0.7%	0.8%	0.7%	0.7%	0.7%	0.5%
Decrease > 100 cfs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Note: The maximum daily increase in diversions is 200 cfs for Full Use, Alternatives 1a, 1c, 8a, 10a, and 13a and No Action.

Roberts Tunnel

Range and % Occurrence of Daily Changes in Diversions Compared to Current Conditions

	Percentage of Days Changes in Diversions Occur						
Daily Diversion Change	Full Use	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 400 cfs	0.2%	1.0%	1.1%	1.0%	0.9%	1.0%	0.4%
Increase of 300 to 399 cfs	0.8%	2.5%	2.6%	2.3%	2.5%	2.5%	1.5%
Increase of 200 to 299 cfs	3.6%	7.4%	7.4%	7.3%	7.2%	7.3%	5.6%
Increase of 100 to 199 cfs	10.3%	11.4%	11.4%	11.4%	11.5%	11.4%	11.5%
Increase of 1 to 99 cfs	55.5%	29.6%	29.5%	29.8%	29.6%	29.1%	56.0%
Change of -1 to 1 cfs	11.1%	10.8%	10.8%	10.9%	11.0%	11.0%	9.9%
Decrease of 1 to 99 cfs	17.2%	35.6%	35.5%	35.6%	35.5%	36.0%	14.0%
Decrease of 100 to 199 cfs	1.1%	1.5%	1.5%	1.5%	1.5%	1.5%	0.7%
Decrease > 200 cfs	0.2%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%

Note: The maximum daily increase in diversions is 605 cfs for Full Use, Alternatives 1a, 1c, 8a, 10a, and 13a, and No Action.

Table H-6.10. Daily Flow Changes in the Fraser River Basin Compared to Full Use of the Existing System

Below Denver Water's Fraser River Diversion (Node 2120)

Range and % Occurrence of Daily Flow Changes Compared to Full Use of the Existing System, May through July

	Percentage of Days in May through July FlowChanges Occur					
Daily FlowChange	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 1 cfs	1.5%	1.9%	1.5%	1.5%	1.5%	1.3%
Change of -1 to 1 cfs	87.9%	87.1%	88.0%	88.1%	87.9%	92.1%
Decrease of 1 to 100 cfs	7.0%	7.1%	7.1%	7.1%	7.0%	6.0%
Decrease of 100 to 199 cfs	3.4%	3.6%	3.1%	3.0%	3.3%	0.6%
Decrease of > 200 cfs	0.3%	0.3%	0.3%	0.3%	0.3%	0.0%

Below Denver Water's Jim Creek Diversion (Node 2160)

Range and % Occurrence of Daily Flow Changes Compared to Full Use of the Existing System, May through July

	Percentage of Days in May through July FlowChanges Occur					
Daily FlowChange	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 1 cfs	0.2%	0.5%	0.2%	0.2%	0.3%	0.4%
Change of -1 to 1 cfs	93.5%	93.4%	93.6%	93.6%	93.5%	96.2%
Decrease of 1 to 19 cfs	2.3%	2.1%	2.3%	2.3%	2.2%	2.0%
Decrease of 20 to 39 cfs	1.8%	1.7%	1.8%	1.8%	1.8%	0.8%
Decrease of 40 to 59 cfs	1.3%	1.2%	1.2%	1.2%	1.2%	0.5%
Decrease > 60 cfs	1.0%	1.0%	0.9%	0.9%	0.9%	0.2%

Below Denver Water St. Louis Creek Tributary Diversions (Node 2180)

Range and % Occurrence of Daily Flow Changes Compared to Full Use of the Existing System, May through July

	Percentage of Days in May through July FlowChanges Occur					
Daily FlowChange	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 1 cfs	1.4%	2.1%	1.6%	1.5%	1.5%	0.8%
Change of -1 to 1 cfs	86.9%	86.0%	87.7%	87.6%	87.1%	95.1%
Decrease of 1 to 19 cfs	1.2%	0.9%	1.1%	1.2%	1.2%	1.4%
Decrease of 20 to 39 cfs	3.3%	3.4%	2.9%	2.9%	3.0%	1.5%
Decrease of 40 to 59 cfs	3.9%	4.0%	3.3%	3.4%	3.8%	0.7%
Decrease of 60 to 79 cfs	2.2%	2.4%	2.1%	2.1%	2.2%	0.3%
Decrease of 80 to 99 cfs	0.9%	0.9%	0.9%	0.9%	0.9%	0.1%
Decrease of 100 to 119 cfs	0.3%	0.3%	0.3%	0.3%	0.3%	0.0%
Decrease > 120 cfs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Table H-6.10. Daily Flow Changes in the Fraser River Basin Compared to Full Use of the Existing System (continued)

St. Louis Creek near Fraser Gage (Node 2200)

Range and % Occurrence of Daily Flow Changes Compared to Full Use of the Existing System, May through July

	Percentage of Days in May through July Flow Changes Occur					
Daily Flow Change	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 1 cfs	1.9%	2.9%	2.2%	2.1%	2.1%	1.1%
Change of -1 to 1 cfs	83.8%	82.7%	84.6%	84.6%	84.0%	92.5%
Decrease of 1 to 24 cfs	2.8%	2.6%	2.8%	2.8%	2.9%	3.3%
Decrease of 25 to 49 cfs	2.0%	2.0%	2.0%	2.1%	2.0%	1.4%
Decrease of 50 to 74 cfs	2.2%	2.3%	1.8%	1.8%	1.9%	0.7%
Decrease of 75 to 99 cfs	2.4%	2.6%	2.0%	2.1%	2.3%	0.4%
Decrease of 100 to 124 cfs	2.0%	2.0%	1.8%	1.7%	1.9%	0.2%
Decrease of 125 to 149 cfs	1.4%	1.4%	1.4%	1.4%	1.4%	0.2%
Decrease of 150 to 174 cfs	0.7%	0.7%	0.7%	0.7%	0.7%	0.1%
Decrease of 175 to 199 cfs	0.7%	0.7%	0.7%	0.7%	0.7%	0.1%
Decrease > 200 cfs	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%

Below Denver Water's Little Vasquez Creek Diversion (Node 2340)

Range and % Occurrence of Daily Flow Changes Compared to Full Use of the Existing System, May through July

	Percentage of Days in May through July Flow Changes Occur					
Daily Flow Change	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 1 cfs	0.6%	1.1%	0.7%	0.8%	0.7%	0.5%
Change of -1 to 1 cfs	91.3%	90.5%	91.6%	91.6%	91.2%	96.9%
Decrease of 1 to 19 cfs	3.7%	3.7%	3.5%	3.5%	3.7%	1.6%
Decrease of 20 to 39 cfs	3.9%	4.1%	3.6%	3.6%	3.8%	0.9%
Decrease of 40 to 59 cfs	0.4%	0.4%	0.3%	0.3%	0.4%	0.1%
Decrease > 60 cfs	0.1%	0.2%	0.1%	0.1%	0.1%	0.0%

Vasquez Creek Gage (Node 2370)

Range and % Occurrence of Daily Flow Changes Compared to Full Use of the Existing System, May through July

	Percentage of Days in May through July Flow Changes Occur					
Daily Flow Change	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 1 cfs	2.2%	3.3%	2.4%	2.4%	2.2%	1.4%
Change of -1 to 1 cfs	83.1%	82.5%	83.5%	83.5%	83.2%	90.6%
Decrease of 1 to 49 cfs	5.3%	4.4%	5.4%	5.5%	5.5%	5.9%
Decrease of 50 to 99 cfs	3.3%	3.5%	3.3%	3.2%	3.3%	1.3%
Decrease of 100 to 149 cfs	3.4%	3.7%	3.1%	3.2%	3.2%	0.4%
Decrease of 150 to 199 cfs	1.8%	1.7%	1.4%	1.4%	1.7%	0.4%
Decrease of 200 to 249 cfs	0.7%	0.7%	0.6%	0.6%	0.7%	0.0%
Decrease of 250 to 299 cfs	0.3%	0.3%	0.3%	0.3%	0.3%	0.0%
Decrease > 300 cfs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Table H-6.10. Daily Flow Changes in the Fraser River Basin Compared to Full Use of the Existing System (continued)

Below Denver Water's Englewood Ranch Gravity System Diversions (Node 2480)

Range and % Occurrence of Daily Flow Changes Compared to Full Use of the Existing System, May through July

	Percentage of Days in May through July Flow Changes Occur					
Daily Flow Change	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 1 cfs	1.4%	1.7%	1.4%	1.4%	1.4%	0.2%
Change of -1 to 1 cfs	90.5%	90.1%	91.2%	91.3%	90.8%	97.0%
Decrease of 1 to 19 cfs	4.9%	5.0%	4.5%	4.4%	4.8%	1.8%
Decrease of 20 to 39 cfs	3.2%	3.2%	2.9%	2.9%	3.0%	0.9%
Decrease > 40 cfs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Below Denver Water's Main Ranch Creek Diversion (Node 2500)

Range and % Occurrence of Daily Flow Changes Compared to Full Use of the Existing System, May through July

	Percentage of Days in May through July Flow Changes Occur					
Daily Flow Change	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 1 cfs	1.1%	1.4%	1.1%	1.1%	1.1%	0.3%
Change of -1 to 1 cfs	88.2%	87.9%	89.3%	89.3%	88.8%	97.1%
Decrease of 1 to 9 cfs	1.7%	1.8%	1.4%	1.4%	1.4%	0.7%
Decrease of 10 to 19 cfs	3.2%	3.1%	2.9%	3.0%	3.2%	0.9%
Decrease > 20 cfs	5.8%	5.7%	5.2%	5.2%	5.5%	1.0%

Fraser River near Winter Park Gage (Node 2580)

Range and % Occurrence of Daily Flow Changes Compared to Full Use of the Existing System, May through July

	Percentage of Days in May through July Flow Changes Occur					
Daily Flow Change	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 1 cfs	1.0%	1.6%	1.2%	1.2%	1.2%	1.2%
Change of -1 to 1 cfs	86.4%	86.1%	86.3%	86.3%	86.3%	89.6%
Decrease of 1 to 49 cfs	5.1%	4.5%	5.2%	5.3%	5.0%	6.8%
Decrease of 50 to 99 cfs	3.1%	3.3%	3.1%	3.1%	3.2%	1.6%
Decrease of 100 to 149 cfs	1.8%	1.9%	1.8%	1.8%	1.7%	0.2%
Decrease of 150 to 199 cfs	1.3%	1.2%	1.1%	1.1%	1.3%	0.3%
Decrease of 200 to 249 cfs	0.8%	0.9%	0.8%	0.8%	0.8%	0.1%
Decrease of 250 to 299 cfs	0.3%	0.2%	0.2%	0.2%	0.2%	0.0%
Decrease > 300 cfs	0.2%	0.2%	0.2%	0.2%	0.2%	0.0%

Table H-6.10. Daily Flow Changes in the Fraser River Basin Compared to Full Use of the Existing System (continued)

Fraser River below St. Louis Creek (Node 2700)

Range and % Occurrence of Daily Flow Changes Compared to Full Use of the Existing System, May through July

	Percentage of Days in May through July Flow Changes Occur					
Daily Flow Change	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 1 cfs	3.4%	4.6%	3.7%	3.6%	3.5%	2.9%
Change of -1 to 1 cfs	75.8%	75.7%	75.8%	75.9%	75.9%	79.4%
Decrease of 1 to 99 cfs	10.3%	8.4%	10.8%	10.8%	10.5%	15.5%
Decrease of 100 to 199 cfs	2.6%	3.3%	2.5%	2.5%	2.5%	1.2%
Decrease of 200 to 299 cfs	2.5%	2.6%	2.3%	2.2%	2.4%	0.5%
Decrease of 300 to 399 cfs	2.4%	2.3%	2.2%	2.2%	2.3%	0.2%
Decrease of 400 to 499 cfs	1.6%	1.6%	1.3%	1.3%	1.6%	0.2%
Decrease of 500 to 599 cfs	0.9%	1.0%	0.9%	0.9%	0.9%	0.1%
Decrease > 600 cfs	0.5%	0.5%	0.5%	0.5%	0.5%	0.0%

Fraser River at Granby Gage (Node 2900)

Range and % Occurrence of Daily Flow Changes Compared to Full Use of the Existing System, May through July

	Percentage of Days in May through July Flow Changes Occur					
Daily Flow Change	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 1 cfs	4.5%	5.7%	4.8%	4.6%	4.4%	3.2%
Change of -1 to 1 cfs	71.5%	71.4%	71.5%	71.5%	71.5%	75.6%
Decrease of 1 to 99 cfs	12.3%	10.7%	13.1%	13.1%	12.8%	18.4%
Decrease of 100 to 199 cfs	2.1%	2.6%	1.8%	1.9%	2.0%	1.3%
Decrease of 200 to 299 cfs	2.3%	2.4%	2.1%	2.1%	2.1%	0.7%
Decrease of 300 to 399 cfs	2.2%	2.2%	2.1%	2.1%	2.1%	0.4%
Decrease of 400 to 499 cfs	2.3%	2.2%	2.1%	2.1%	2.3%	0.2%
Decrease of 500 to 599 cfs	1.8%	1.8%	1.5%	1.5%	1.7%	0.2%
Decrease > 600 cfs	1.0%	1.0%	1.0%	1.0%	1.0%	0.1%

Table H-6.11. Daily Flow Changes in the Williams Fork River Basin Compared to Full Use of the Existing System

Below Denver Water's Diversion on Steelman Creek (Node 3100)

Range and % Occurrence of Daily Flow Changes Compared to Full Use of the Existing System, May through July

	Percentage of Days in May through July Flow Changes Occur					
Daily Flow Change	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 1 cfs	1.2%	1.5%	1.2%	1.2%	1.2%	0.1%
Change of -1 to 1 cfs	88.5%	88.1%	89.5%	89.6%	88.9%	97.0%
Decrease of 1 to 9 cfs	1.3%	1.3%	1.3%	1.3%	1.3%	0.7%
Decrease of 10 to 19 cfs	2.9%	3.1%	2.6%	2.6%	2.8%	1.0%
Decrease of 20 to 29 cfs	2.9%	2.8%	2.5%	2.5%	2.8%	0.6%
Decrease of 30 to 39 cfs	2.8%	2.8%	2.5%	2.4%	2.6%	0.4%
Decrease of 40 to 49 cfs	0.4%	0.4%	0.4%	0.4%	0.4%	0.1%
Decrease > 50 cfs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Williams Fork River below Steelman Creek (Node 3300)

Range and % Occurrence of Daily Flow Changes Compared to Full Useof the Existing System, May through July

	Percentage of Days in May through July Flow Changes Occur					
Daily Flow Change	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 1 cfs	1.9%	2.3%	1.9%	1.9%	1.8%	0.6%
Change of -1 to 1 cfs	85.6%	85.0%	86.5%	86.5%	86.0%	94.8%
Decrease of 1 to 49 cfs	3.8%	3.8%	3.8%	3.8%	3.8%	2.8%
Decrease of 50 to 99 cfs	4.1%	4.2%	3.8%	3.8%	3.9%	1.1%
Decrease of 100 to 149 cfs	3.4%	3.5%	3.0%	3.0%	3.3%	0.6%
Decrease > 150 cfs	1.3%	1.2%	1.0%	1.0%	1.1%	0.1%

Williams Fork Reservoir Outflow (Node 3950)

Range and % Occurrence of Daily Flow Changes Compared to Full Use of the Existing System, May through July

	Percentage of Days in May through July Flow Changes Occur					
Daily Flow Change	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 1 cfs	5.5%	5.9%	5.8%	5.7%	4.8%	3.6%
Change of -1 to 1 cfs	84.6%	84.3%	85.1%	85.1%	86.8%	90.0%
Decrease of 1 to 99 cfs	4.4%	4.4%	4.3%	4.4%	4.1%	3.8%
Decrease of 100 to 199 cfs	2.1%	1.9%	1.5%	1.5%	1.5%	0.6%
Decrease of 200 to 299 cfs	2.4%	2.4%	2.3%	2.3%	1.7%	1.6%
Decrease of 300 to 399 cfs	0.4%	0.4%	0.3%	0.4%	0.4%	0.2%
Decrease of 400 to 499 cfs	0.3%	0.3%	0.3%	0.3%	0.3%	0.1%
Decrease of 500 to 599 cfs	0.2%	0.2%	0.2%	0.2%	0.2%	0.1%
Decrease of 600 to 699 cfs	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%
Decrease of 700 to 799 cfs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Decrease > 800 cfs	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%

Table H-6.12. Daily Flow Changes in the Colorado River Basin Compared to Full Use of the Existing System

Colorado River below Windy Gap (Node 1350)

Range and % Occurrence of Daily Flow Changes Compared to Full Use of the Existing System, May through July

	Percentage of Days in May through July Flow Changes Occur					
Daily Flow Change	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 1 cfs	5.7%	6.8%	5.5%	5.3%	5.4%	4.2%
Change of -1 to 1 cfs	74.0%	73.9%	74.9%	74.9%	74.2%	78.7%
Decrease of 1 to 99 cfs	11.5%	10.2%	11.4%	11.5%	11.6%	14.9%
Decrease of 100 to 199 cfs	1.8%	2.2%	1.7%	1.7%	1.8%	0.9%
Decrease of 200 to 299 cfs	1.7%	1.7%	1.5%	1.6%	1.7%	0.7%
Decrease of 300 to 399 cfs	1.6%	1.5%	1.5%	1.5%	1.6%	0.3%
Decrease of 400 to 499 cfs	1.1%	1.0%	1.0%	1.0%	1.0%	0.1%
Decrease of 500 to 999 cfs	2.4%	2.4%	2.2%	2.1%	2.3%	0.1%
Decrease of 1000 to 1999 cfs	0.2%	0.2%	0.2%	0.2%	0.2%	0.1%
Decrease of 2000 to 2999 cfs	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%
Decrease > 3000 cfs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Colorado River below the Confluence with the Williams Fork River (Node 1430)

Range and % Occurrence of Daily Flow Changes Compared to Full Use of the Existing System, May through July

	Percentage of Days in May through July Flow Changes Occur					
Daily Flow Change	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 1 cfs	7.5%	8.2%	8.0%	7.8%	6.9%	6.0%
Change of -1 to 1 cfs	66.0%	66.0%	66.6%	66.7%	67.4%	72.0%
Decrease of 1 to 99 cfs	13.5%	12.8%	13.1%	13.2%	13.2%	16.8%
Decrease of 100 to 199 cfs	4.0%	4.0%	3.9%	3.9%	3.7%	2.5%
Decrease of 200 to 299 cfs	2.7%	2.7%	2.4%	2.5%	2.6%	1.5%
Decrease of 300 to 399 cfs	1.8%	1.7%	1.7%	1.7%	1.8%	0.4%
Decrease of 400 to 499 cfs	1.6%	1.5%	1.4%	1.4%	1.6%	0.2%
Decrease of 500 to 999 cfs	2.4%	2.5%	2.4%	2.4%	2.3%	0.3%
Decrease of 1000 to 1999 cfs	0.3%	0.3%	0.2%	0.2%	0.3%	0.1%
Decrease of 2000 to 2999 cfs	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%
Decrease > 3000 cfs	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%

Colorado River near Kremmling (Node 5020)

Range and % Occurrence of Daily Flow Changes Compared to Full Use of the Existing System, May through July

	Percentage of Days in May through July Flow Changes Occur					
Daily Flow Change	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 1 cfs	7.5%	7.6%	8.0%	7.9%	6.9%	5.7%
Change of -1 to 1 cfs	57.9%	58.2%	58.4%	58.6%	58.7%	62.3%
Decrease of 1 to 99 cfs	16.9%	16.2%	17.2%	17.1%	17.5%	21.1%
Decrease of 100 to 199 cfs	5.7%	5.8%	5.2%	5.2%	5.1%	3.8%
Decrease of 200 to 299 cfs	3.7%	3.8%	3.8%	3.8%	4.0%	2.9%
Decrease of 300 to 399 cfs	2.4%	2.3%	2.2%	2.1%	2.3%	0.8%
Decrease of 400 to 499 cfs	1.8%	1.8%	1.5%	1.6%	1.9%	0.5%
Decrease of 500 to 999 cfs	3.3%	3.2%	3.0%	3.0%	2.9%	1.7%
Decrease of 1000 to 1999 cfs	0.7%	0.7%	0.6%	0.5%	0.6%	0.9%
Decrease of 2000 to 2999 cfs	0.1%	0.1%	0.1%	0.1%	0.1%	0.3%
Decrease > 3000 cfs	0.1%	0.1%	0.0%	0.0%	0.0%	0.1%

Table H-6.13. Daily Flow Changes in the Muddy Creek Basin Compared to Full Use of the Existing System

Muddy Creek below Wolford Mountain Reservoir (Node 1600)						
Range and % Occurrence of Daily Flow Changes Compared to Full Use of the Existing Conditions						
	Percentage of Days Flow Changes Occur					
Daily Flow Change	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 100 cfs	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%
Increase of 1 to 99 cfs	1.0%	1.0%	1.0%	1.0%	0.9%	0.8%
Change of -1 to 1 cfs	97.8%	97.8%	97.8%	97.9%	98.0%	97.9%
Decrease of 1 to 49 cfs	0.9%	0.9%	0.9%	0.9%	0.8%	0.9%
Decrease of 50 to 99 cfs	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Decrease of 100 to149 cfs	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%
Decrease > 150 cfs	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%

Table H-6.14. Daily Flow Changes in the Blue River Basin Compared to Full Use of the Existing System

Dillon Reservoir Outflow (Node 4250)

Range and % Occurrence of Daily Flow Changes Compared to Full Use of the Existing System, June to August

	Percentage of Days in June through August Flow Changes Occur					
Daily Flow Change	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 1 cfs	7.5%	7.5%	7.4%	7.4%	7.3%	6.0%
Change of -1 to 1 cfs	75.1%	75.3%	75.1%	75.1%	75.4%	74.8%
Decrease of 1 to 99 cfs	9.1%	8.6%	9.7%	9.5%	9.3%	10.0%
Decrease of 100 to 249 cfs	4.7%	4.9%	4.8%	4.8%	4.7%	3.4%
Decrease of 250 to 499 cfs	2.0%	2.1%	1.5%	1.6%	1.7%	2.5%
Decrease of 500 to 999 cfs	1.1%	1.1%	1.0%	1.0%	1.1%	2.0%
Decrease of 1000 to 1499 cfs	0.4%	0.5%	0.5%	0.5%	0.5%	0.8%
Decrease > 1500 cfs	0.1%	0.1%	0.1%	0.1%	0.1%	0.4%

Green Mountain Reservoir Outflow (Node 4650)

Range and % Occurrence of Daily Flow Changes Compared to Full Use of the Existing System, June to August

	Percentage of Days in June through August Flow Changes Occur					
Daily Flow Change	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 1 cfs	12.2%	11.6%	11.0%	11.0%	12.0%	7.5%
Change of -1 to 1 cfs	66.4%	67.4%	67.7%	67.8%	66.7%	68.9%
Decrease of 1 to 99 cfs	14.1%	13.7%	14.3%	14.1%	14.1%	15.3%
Decrease of 100 to 249 cfs	3.5%	3.4%	3.6%	3.7%	3.6%	2.6%
Decrease of 250 to 499 cfs	2.7%	2.8%	2.5%	2.5%	2.6%	3.0%
Decrease of 500 to 999 cfs	0.7%	0.7%	0.7%	0.7%	0.7%	1.4%
Decrease of 1000 to 1999 cfs	0.2%	0.2%	0.2%	0.2%	0.2%	0.8%
Decrease of 2000 to 2999 cfs	0.1%	0.1%	0.1%	0.1%	0.1%	0.3%
Decrease > 3000 cfs	0.0%	0.1%	0.0%	0.0%	0.0%	0.1%

Table H-6.15. Daily Flow Changes in the South Boulder Creek Basin Compared to Full Use of the Existing System

South Boulder Creek at Pinecliffe Gage (Node 57120)

Range and % Occurrence of Daily Flow Changes Compared to Full Use of the Existing System

	Percentage of Days in May through July FlowChanges Occur					
Daily FlowChange	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 500 cfs	5.0%	4.9%	4.5%	4.5%	4.9%	0.6%
Increase of 400 to 499 cfs	1.7%	1.7%	1.5%	1.5%	1.6%	0.2%
Increase of 300 to 399 cfs	2.6%	2.6%	2.3%	2.3%	2.3%	0.5%
Increase of 200 to 299 cfs	1.7%	1.9%	1.4%	1.4%	1.5%	0.8%
Increase of 100 to 199 cfs	1.3%	2.0%	1.4%	1.5%	1.4%	0.9%
Increase of 1 to 99 cfs	11.2%	8.6%	11.6%	11.5%	11.4%	17.1%
Change of -1 to 1 cfs	70.2%	70.7%	70.6%	70.7%	70.6%	75.8%
Decrease of 1 to 99 cfs	5.3%	5.8%	5.4%	5.3%	5.1%	3.9%
Decrease of 100 to 199 cfs	0.6%	1.1%	0.7%	0.7%	0.7%	0.2%
Decrease > 200 cfs	0.5%	0.7%	0.5%	0.5%	0.5%	0.1%

Gross Reservoir Outflow (Node 57140)

Range and % Occurrence of Daily Flow Changes Compared to Full Use of the Existing System

	Percentage of Days FlowChanges Occur					
Daily FlowChange	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 300 cfs	0.0%	0.3%	0.0%	0.0%	0.0%	0.3%
Increase of 200 to 299 cfs	0.1%	0.3%	0.1%	0.1%	0.1%	0.2%
Increase of 100 to 199 cfs	3.6%	2.4%	0.8%	0.8%	3.2%	0.8%
Increase of 1 to 99 cfs	73.1%	72.1%	74.9%	74.9%	72.5%	53.8%
Change of -1 to 1 cfs	2.2%	2.0%	2.4%	2.3%	2.5%	32.5%
Decrease of 1 to 99 cfs	11.6%	13.3%	12.7%	12.8%	12.6%	11.6%
Decrease of 100 to 199 cfs	4.9%	5.1%	4.7%	4.7%	4.7%	0.6%
Decrease of 200 to 299 cfs	2.5%	2.6%	2.4%	2.4%	2.5%	0.2%
Decrease of 300 to 399	0.4%	0.3%	0.3%	0.3%	0.4%	0.0%
Decrease > 400 cfs	1.6%	1.6%	1.6%	1.6%	1.6%	0.1%

South Boulder Creek near Eldorado Springs Gage (Node 57180)

Range and % Occurrence of Daily Flow Changes Compared to Full Use of the Existing System

	Percentage of Days in May through July FlowChanges Occur					
Daily FlowChange	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 1 cfs	5.5%	7.5%	4.9%	5.0%	5.1%	3.9%
Change of -1 to 1 cfs	73.6%	71.4%	74.2%	74.1%	73.9%	90.7%
Decrease of 1 to 99 cfs	18.7%	18.8%	18.7%	18.7%	18.7%	4.9%
Decrease of 100 to 199 cfs	0.8%	0.9%	0.8%	0.8%	0.8%	0.2%
Decrease > 200 cfs	1.4%	1.4%	1.4%	1.4%	1.4%	0.2%

Table H-6.16. Daily Flow Changes in the North Fork South Platte River Basin Compared to Full Use of the Existing System

North Fork South Platte Below Geneva Creek Gage (50700)

Range and % Occurrence of Daily Flow Changes Compared to Full Use of the Existing System

	Percentage of Days Flow Changes Occur					
Daily Flow Change	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 500 cfs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Increase of 400 to 499 cfs	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Increase of 300 to 399 cfs	0.6%	0.6%	0.5%	0.5%	0.5%	0.1%
Increase of 200 to 299 cfs	1.9%	2.0%	1.8%	1.9%	1.9%	0.5%
Increase of 100 to 199 cfs	5.6%	5.7%	5.2%	5.3%	5.4%	2.0%
Increase of 1 to 99 cfs	24.3%	24.2%	24.4%	24.4%	24.2%	62.7%
Change of -1 to 1 cfs	15.3%	15.2%	15.5%	15.4%	15.3%	17.5%
Decrease of 1 to 99 cfs	51.8%	51.7%	51.9%	51.9%	52.1%	16.6%
Decrease of 100 to 199 cfs	0.5%	0.5%	0.5%	0.5%	0.5%	0.4%
Decrease > 200 cfs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

North Fork South Platte Above Pine (50750)

Range and % Occurrence of Daily Flow Changes Compared to Full Use of the Existing System

	Percentage of Days Flow Changes Occur					
Daily Flow Change	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 400 cfs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Increase of 300 to 399 cfs	0.4%	0.4%	0.3%	0.3%	0.4%	0.1%
Increase of 200 to 299 cfs	1.8%	1.8%	1.6%	1.7%	1.7%	0.4%
Increase of 100 to 199 cfs	5.6%	5.8%	5.3%	5.3%	5.4%	1.7%
Increase of 1 to 99 cfs	26.1%	25.9%	26.1%	26.2%	26.1%	65.7%
Change of -1 to 1 cfs	13.8%	13.8%	14.0%	13.9%	13.8%	16.1%
Decrease of 1 to 99 cfs	52.1%	51.9%	52.3%	52.2%	52.3%	15.6%
Decrease of 100 to 199 cfs	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%
Decrease > 200 cfs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Table H-6.17. Daily Flow Changes in the South Platte River Basin Compared to Full Use of the Existing System

Antero Reservoir Outflow (Node 50150)

Range and % Occurrence of Daily Flow Changes Compared to Full Use of the Existing System

	Percentage of Days Flow Changes Occur					
Daily Flow Change	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 200 cfs	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Increase of 100 to 199 cfs	0.2%	0.2%	0.2%	0.2%	0.2%	0.3%
Increase of 1 to 99 cfs	8.5%	8.5%	8.3%	8.4%	8.6%	8.5%
Change of -1 to 1 cfs	83.2%	83.1%	83.4%	83.3%	83.1%	83.1%
Decrease of 1 to 99 cfs	7.8%	7.9%	7.8%	7.9%	7.9%	7.7%
Decrease of 100 to 199 cfs	0.2%	0.2%	0.2%	0.2%	0.2%	0.4%
Decrease > 200 cfs	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%

Eleven Mile Reservoir Outflow (Node 50300)

Range and % Occurrence of Daily Flow Changes Compared to Full Use of the Existing System

	Percentage of Days Flow Changes Occur					
Daily Flow Change	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 200 cfs	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%
Increase of 100 to 199 cfs	0.8%	0.7%	0.7%	0.7%	0.8%	0.6%
Increase of 1 to 99 cfs	21.8%	22.0%	21.4%	21.5%	21.2%	22.8%
Change of -1 to 1 cfs	55.6%	55.5%	56.0%	56.0%	55.7%	57.3%
Decrease of 1 to 99 cfs	21.1%	21.0%	21.1%	21.0%	21.6%	18.3%
Decrease of 100 to 199 cfs	0.5%	0.4%	0.5%	0.5%	0.5%	0.5%
Decrease of 200 to 299 cfs	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Decrease of 300 to 399 cfs	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Decrease of 400 to 499 cfs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Decrease of 500 to 599 cfs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Decrease > 600 cfs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Cheesman Reservoir Outflow (Node 50450)

Range and % Occurrence of Daily Flow Changes Compared to Full Use of the Existing System

	Percentage of Days Flow Changes Occur					
Daily Flow Change	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 200 cfs	0.5%	0.5%	0.5%	0.5%	0.5%	0.1%
Increase of 100 to 199 cfs	1.9%	1.9%	1.8%	1.8%	1.8%	1.0%
Increase of 1 to 99 cfs	32.3%	32.7%	32.4%	32.5%	32.1%	54.0%
Change of -1 to 1 cfs	14.4%	14.4%	14.7%	14.5%	14.2%	17.8%
Decrease of 1 to 99 cfs	49.4%	48.9%	49.1%	49.2%	49.7%	25.2%
Decrease of 100 to 199 cfs	1.1%	1.1%	1.0%	1.1%	1.2%	1.1%
Decrease of 200 to 299 cfs	0.3%	0.3%	0.3%	0.3%	0.3%	0.4%
Decrease of 300 to 399 cfs	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Decrease of 400 to 499 cfs	0.0%	0.1%	0.0%	0.0%	0.1%	0.1%
Decrease of 500 to 599 cfs	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Decrease > 600 cfs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Table H-6.17. Daily Flow Changes in the South Platte River Basin Compared to Full Use of the Existing System (continued)

South Platte at Waterton Gage (Node 51200)

Range and % Occurrence of Daily Flow Changes Compared to Full Use of the Existing System

	Percentage of Days Flow Changes Occur					
Daily Flow Change	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 200 cfs	0.2%	0.2%	0.2%	0.2%	0.2%	0.1%
Increase of 100 to 199 cfs	0.6%	0.7%	0.7%	0.7%	0.7%	0.3%
Increase of 1 to 99 cfs	9.1%	9.2%	9.0%	8.9%	8.9%	5.9%
Change of -1 to 1 cfs	71.4%	71.2%	71.5%	71.5%	71.3%	73.3%
Decrease of 1 to 99 cfs	17.1%	17.1%	17.1%	17.1%	17.3%	18.9%
Decrease of 100 to 199 cfs	1.2%	1.3%	1.2%	1.2%	1.2%	1.0%
Decrease of 200 to 299 cfs	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%
Decrease of 300 to 399 cfs	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Decrease of 400 to 499 cfs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Decrease of 500 to 599 cfs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Decrease > 600 cfs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

South Platte at Denver Gage (Node 51540)

Range and % Occurrence of Daily Flow Changes Compared to Full Use of the Existing System

	Percentage of Days Flow Changes Occur					
Daily Flow Change	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 200 cfs	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%
Increase of 100 to 199 cfs	0.6%	0.6%	0.6%	0.6%	0.6%	0.2%
Increase of 1 to 99 cfs	60.0%	59.7%	59.0%	59.4%	59.5%	40.4%
Change of -1 to 1 cfs	10.4%	10.4%	11.1%	10.8%	10.5%	27.6%
Decrease of 1 to 99 cfs	27.8%	27.9%	28.1%	27.9%	28.1%	30.5%
Decrease of 100 to 199 cfs	0.9%	0.9%	1.0%	1.0%	0.9%	0.9%
Decrease of 200 to 299 cfs	0.2%	0.2%	0.1%	0.1%	0.2%	0.3%
Decrease of 300 to 399 cfs	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Decrease of 400 to 499 cfs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Decrease of 500 to 599 cfs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Decrease > 600 cfs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

South Platte at Henderson Gage (Node 58440)

Range and % Occurrence of Daily Flow Changes Compared to Full Use of the Existing System

	Percentage of Days Flow Changes Occur					
Daily Flow Change	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 200 cfs	0.4%	0.4%	0.3%	0.3%	0.4%	0.2%
Increase of 100 to 199 cfs	1.4%	1.3%	1.2%	1.3%	1.8%	1.0%
Increase of 1 to 99 cfs	46.7%	46.8%	42.0%	42.7%	50.5%	42.5%
Change of -1 to 1 cfs	23.0%	22.9%	23.7%	23.7%	21.4%	32.5%
Decrease of 1 to 99 cfs	26.9%	27.1%	31.4%	30.6%	24.5%	22.7%
Decrease of 100 to 199 cfs	1.2%	1.2%	1.1%	1.2%	1.2%	0.7%
Decrease of 200 to 299 cfs	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Decrease of 300 to 399 cfs	0.1%	0.1%	0.0%	0.0%	0.1%	0.1%
Decrease of 400 to 499 cfs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Decrease of 500 to 599 cfs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Decrease > 600 cfs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Table H-6.18. Daily Changes in Diversions at the Moffat, Gumlick, and Roberts Tunnels Compared to Full Use of the Existing System

Moffat Tunnel

Range and % Occurrence of Daily Changes in Diversions Compared to Full Use of the Existing System, May though July

	Percentage of Days in May through July FlowChanges in Diversions Occur					
Daily Diversion Change	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 400 cfs	6.6%	6.7%	6.1%	6.1%	6.5%	0.8%
Increase of 300 to 399 cfs	2.6%	2.6%	2.3%	2.3%	2.3%	0.5%
Increase of 200 to 299 cfs	1.7%	1.9%	1.4%	1.4%	1.5%	0.7%
Increase of 100 to 199 cfs	1.3%	1.9%	1.4%	1.5%	1.4%	0.9%
Increase of 1 to 99 cfs	10.6%	8.0%	10.9%	10.8%	10.6%	16.1%
Change of -1 to 1 cfs	70.7%	71.4%	71.2%	71.3%	71.2%	76.7%
Decrease of 1 to 99 cfs	5.5%	5.8%	5.5%	5.4%	5.3%	4.0%
Decrease of 100 to 199 cfs	0.7%	1.1%	0.7%	0.7%	0.7%	0.1%
Decrease > 200 cfs	0.5%	0.7%	0.5%	0.5%	0.5%	0.1%

Note: The maximum daily increase in diversions is 843 cfs Alternatives 1a, 1c, 8a, 10a, and 13a, and 809 cfs for No Action.

Gumlick Tunnel

Range and % Occurrence of Daily Changes in Diversions Compared to Full Use of the Existing System, May through July

	Percentage of Days in May through July Changes in Diversions Occur					
Daily Diversion Change	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 100 cfs	4.7%	4.7%	4.1%	4.1%	4.5%	0.8%
Increase of 1 to 99 cfs	7.2%	7.3%	6.9%	6.8%	7.0%	3.2%
Change of -1 to 1 cfs	86.3%	85.9%	87.3%	87.3%	86.8%	95.4%
Decrease of 1 to 99 cfs	1.8%	2.1%	1.8%	1.8%	1.7%	0.6%
Decrease > 100 cfs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Note: The maximum daily increase in diversions is 180 cfs for Alternatives 1a, 1c, 8a, 10a, and 13a and 168 cfs No Action.

Roberts Tunnel

Range and % Occurrence of Daily Changes in Diversions Compared to Full Use of the Existing System

	Percentage of Days Changes in Diversions Occur					
Daily Diversion Change	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Increase > 400 cfs	0.2%	0.2%	0.2%	0.2%	0.2%	0.1%
Increase of 300 to 399 cfs	0.6%	0.6%	0.6%	0.6%	0.6%	0.1%
Increase of 200 to 299 cfs	2.1%	2.2%	2.0%	2.1%	2.0%	0.6%
Increase of 100 to 199 cfs	5.5%	5.8%	5.3%	5.3%	5.5%	2.2%
Increase of 1 to 99 cfs	23.3%	23.0%	23.3%	23.4%	23.2%	62.0%
Change of -1 to 1 cfs	15.7%	15.7%	15.9%	15.8%	15.8%	17.7%
Decrease of 1 to 99 cfs	51.8%	51.7%	51.9%	52.0%	52.1%	16.8%
Decrease of 100 to 199 cfs	0.7%	0.7%	0.7%	0.6%	0.6%	0.5%
Decrease > 200 cfs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Note: The maximum daily increase in diversions is 552 cfs for Alts. 1a and 1c, 553 cfs for Alts.8a, 10a and 13a, and 544 cfs for No Action.

Table H-6.19. Summary of Maximum Daily Flow Reductions Compared to Current Conditions

	Current Conditions		Alt. 1a	Flow	% Flow	Current Conditions		No Action	Flow	% Flow
Location	Date	Flow (cfs)	Flow (cfs)	Reduction	Reduction	Date	Flow (cfs)	Flow (cfs)	Reduction	Reduction
Denver Water's Fraser River Diversion	4-Jul	235	5	230	98%	9-Jun	194	1	193	100%
Denver Water's Jim Ck Diversion	1-Jun	71	1	70	98%	13-Jun	71	2	69	98%
Denver Water's St. Louis Ck Tributary Diversions	22-Jun	123	0	123	100%	16-Jun	117	0	117	100%
St. Louis Ck near Fraser Gage	16-Jun	274	73	201	73%	16-Jun	274	73	201	73%
Denver Water's Little Vasquez Ck Diversion	19-May	71	1	70	98%	19-May	71	1	70	98%
Vasqeuz Ck Gage	19-Jun	368	39	330	89%	28-May	225	7	217	97%
Denver Water's Englewood Ranch Gravity System	25-May	48	8	40	83%	20-May	41	6	36	86%
Denver Water's Main Ranch Ck Diversion	Multiple	34.0 - 58.6	4.0 - 28.6	30	51% - 88%	Multiple	34.0 - 58.6	4.0 - 28.6	30	51% - 88%
Fraser River near Winter Park Gage	10-Jun	388	62	326	84%	9-Jun	290	31	259	89%
Fraser River below St. Louis Creek	5-Jul	968	283	686	71%	16-Jun	715	90	625	87%
Fraser River at Granby Gage	1-Jun	1346	612	734	55%	16-Jun	1071	417	654	61%
Demver Water's Steelman Ck Diversion	5-Jul	60	0	60	100%	5-Jul	60	0	60	100%
Williams Fork River below Steelman Ck	5-Jul	212	12	200	94%	5-Jul	212	12	200	94%
Williams Fork Reservoir Outflow	27-Jul	991	351	640	65%	14-Jul	852	244	608	71%
Muddy Creek below Wolford Mountain Reservoir	25-Apr	1286	20	1266	98%	25-Apr	1286	20	1266	98%
Colorado River below Windy Gap	22-Jun	4384	1456	2928	67%	1-Jul	2959	663	2295	78%
Colorado River below Confluence with Williams Fork River	22-Jun	4453	1515	2938	66%	2-Jul	2790	641	2150	77%
Colorado River near Kremmling	7-Jun	8293	4509	3784	46%	8-Jun	8695	4869	3826	44%
Dillon Reservoir Outflow	15-Jun	2276	50	2226	98%	15-Jun	2276	50	2226	98%
Green Mountain Reservoir Outflow	7-Jun	3783	60	3723	98%	7-Jun	3783	60	3723	98%
South Boulder Creek at Pinecliffe Gage	23-Jun	623	377	247	40%	30-May	956	432	525	55%
Gross Reservoir Outflow	23-May	655	139	516	79%	23-May	655	139	516	79%
South Boulder Creek near Eldorado Springs Gage	23-May	594	68	526	89%	23-May	594	68	526	89%
North Fork South Platte River below Geneva Creek Gage	9-Aug	663	109	554	84%	9-Aug	663	110	553	83%
North Fork South Platte River above Pine	10-Aug	665	181	484	73%	10-Aug	665	179	486	73%
Antero Reservoir Outflow	13-Jul	604	35	569	94%	2-Jan	728	68	660	91%
Eleven Mile Canyon Reservoir Outflow	25-Jul	852	53	798	94%	2-Aug	962	52	909	95%
Cheesman Reservoir Outflow	28-Mar	1142	35	1107	97%	28-Mar	1142	49	1093	96%
South Platte River at Waterton Gage	18-Jul	900	100	801	89%	15-Jun	1858	951	906	49%
South Platte River at Denver Gage	22-Jun	3415	1604	1811	53%	22-Jun	3415	1606	1809	53%
South Platte River at Henderson Gage	10-May	1648	384	1264	77%	22-Jun	3615	2361	1254	35%

Note:
Maximum daily flow reductions for other action alternatives are similar to Alternative 1a.

Table H-6.20. Summary of Maximum Daily Flow Reductions Compared to Full Use of the Existing System

	Full Use Existing System		Alt. 1a	Flow	% Flow	Full Use Existing System		No Action	Flow	% Flow
Location	Date	Flow (cfs)	Flow (cfs)	Reduction	Reduction	Date	Flow (cfs)	Flow (cfs)	Reduction	Reduction
Denver Water's Fraser River Diversion	28-Jun	238	8	230	97%	7-Jun	252	58	193	77%
Denver Water's Jim Ck Diversion	7-Jun	83	13	70	84%	15-Jun	71	2	69	97%
Denver Water's St. Louis Ck Tributary Diversions	22-Jun	123	0	123	100%	16-Jun	117	0	117	100%
St. Louis Ck near Fraser Gage	16-Jun	274	73	201	73%	16-Jun	274	73	201	73%
Denver Water's Little Vasquez Ck Diversion	23-Jun	76	6	70	92%	2-Jun	49	0	49	100%
Vasqeuz Ck Gage	19-Jun	363	39	325	89%	25-May	206	7	199	97%
Denver Water's Englewood Ranch Gravity System	14-May	66	18	48	73%	14-May	66	18	48	73%
Denver Water's Main Ranch Ck Diversion	Multiple Days	34.0 - 58.6	4.0 - 28.6	30	51% - 88%	Multiple Days	34.0 - 58.6	4.0 - 28.6	30	51% - 88%
Fraser River near Winter Park Gage	29-Jun	377	47	330	88%	7-Jun	389	109	280	72%
Fraser River below St. Louis Creek	5-Jul	1016	283	733	72%	16-Jun	720	90	630	87%
Fraser River at Granby Gage	1-Jun	1341	612	729	54%	16-Jun	1104	417	686	62%
Demver Water's Steelman Ck Diversion	23-Jun	51	0	51	100%	15-Jun	42	0	42	100%
Williams Fork River below Steelman Ck	23-Jun	216	39	177	82%	28-Jun	180	13	167	93%
Williams Fork Reservoir Outflow	18-Jun	888	15	873	98%	18-Jun	888	15	873	98%
Muddy Creek below Wolford Mountain Reservoir	16&17-Jan	191	12	180	94%	16&17-Jan	191	12	180	94%
Colorado River below Windy Gap	20-Jun	4275	1229	3046	71%	19-Jun	3926	2033	1893	48%
Colorado River below Confluence with Williams Fork River	21-Jun	4558	1418	3140	69%	19-Jun	3653	2271	1383	38%
Colorado River near Kremmling	21-Jun	7168	3849	3319	46%	23-Jun	7085	3666	3419	48%
Dillon Reservoir Outflow	26-Jun	1742	50	1692	97%	19-Jun	1963	190	1774	90%
Green Mountain Reservoir Outflow	20-Jun	3528	143	3385	96%	23-Jun	3663	238	3425	94%
South Boulder Creek at Pinecliffe Gage	23-Jun	645	377	268	42%	5-Jul	603	304	300	50%
Gross Reservoir Outflow	15-Mar	597	108	489	82%	18-Mar	516	24	492	95%
South Boulder Creek near Eldorado Springs Gage	24-May	580	106	474	82%	8-Jun	712	318	394	55%
North Fork South Platte River below Geneva Creek Gage	3-Jan	592	118	474	80%	20-Aug	604	331	273	45%
North Fork South Platte River above Pine	3-Jan	597	242	355	59%	20-Aug	557	326	230	41%
Antero Reservoir Outflow	13-Jul	245	35	210	86%	2-Jan	550	68	482	88%
Eleven Mile Canyon Reservoir Outflow	11-Jun	620	43	577	93%	15-Jun	907	37	870	96%
Cheesman Reservoir Outflow	3-Aug	1094	247	847	77%	15-Jun	1716	877	840	49%
South Platte River at Waterton Gage	3-Aug	1032	337	695	67%	15-Jun	1786	951	835	47%
South Platte River at Denver Gage	4-Aug	1164	559	605	52%	15-Jun	2072	1277	795	38%
South Platte River at Henderson Gage	10-Jun	1383	731	652	47%	16-Jun	2253	1494	759	34%

Note:
Maximum daily flow reductions for other action alternatives are similar to Alternative 1a.

Figure H-6.1. Daily Flows 1954-1957 below Denver Water's Diversion from the Fraser River

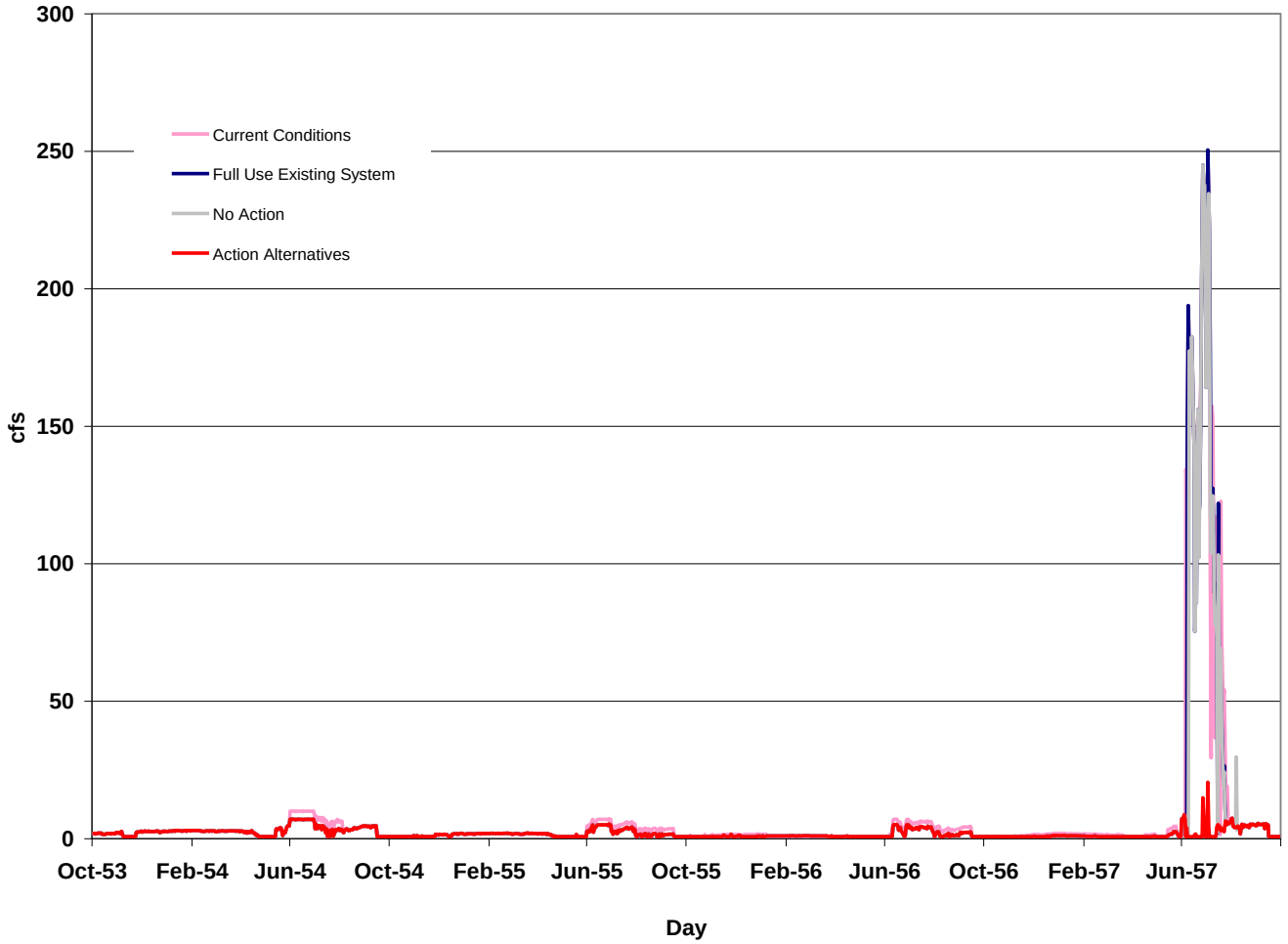


Figure H-6.2. Daily Flows 1954-1957 below Denver Water's Diversion from Jim Creek

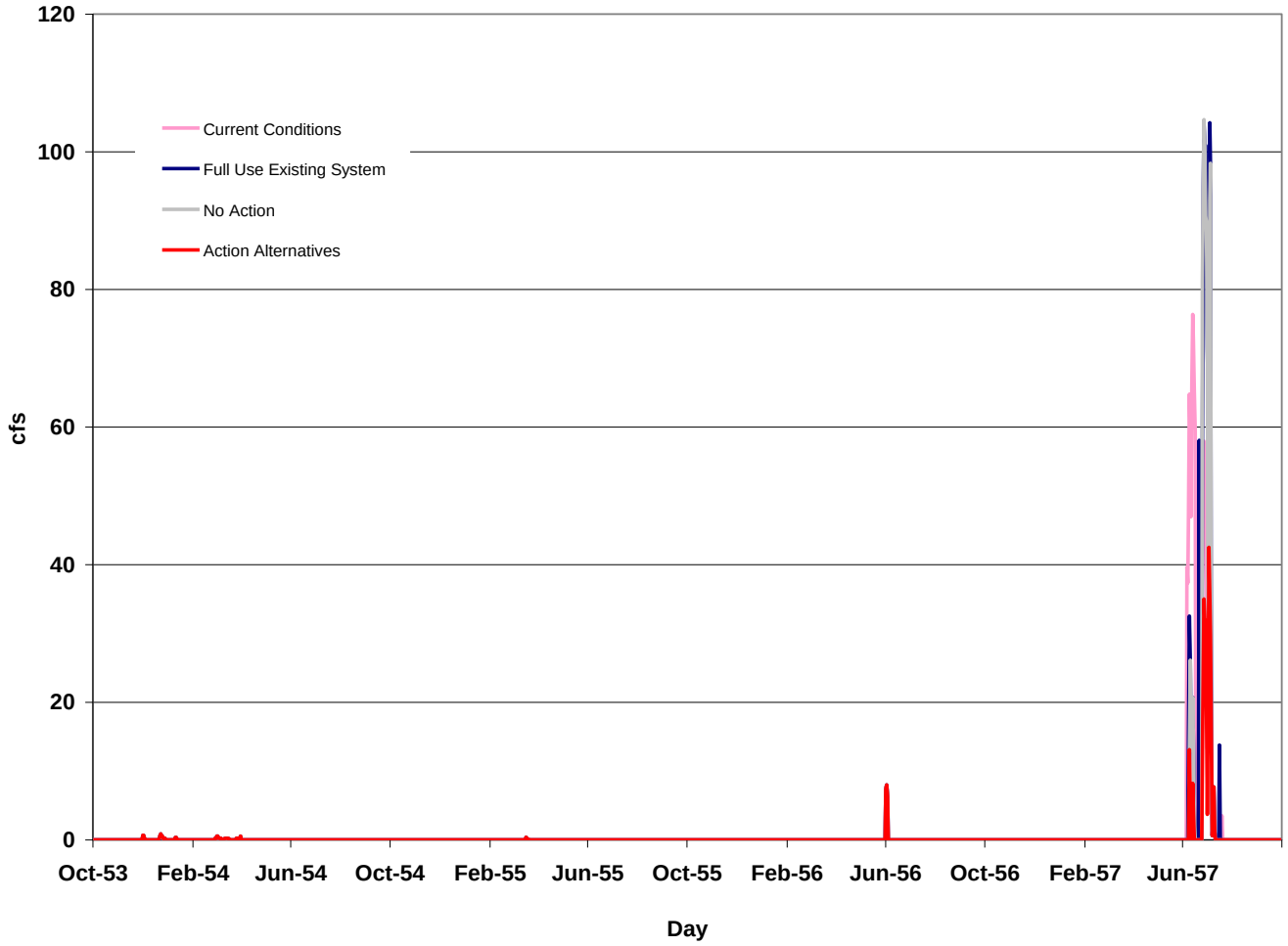


Figure H-6.3. Daily Flows 1954-1957 below Denver Water's Diversion from Vasquez Creek

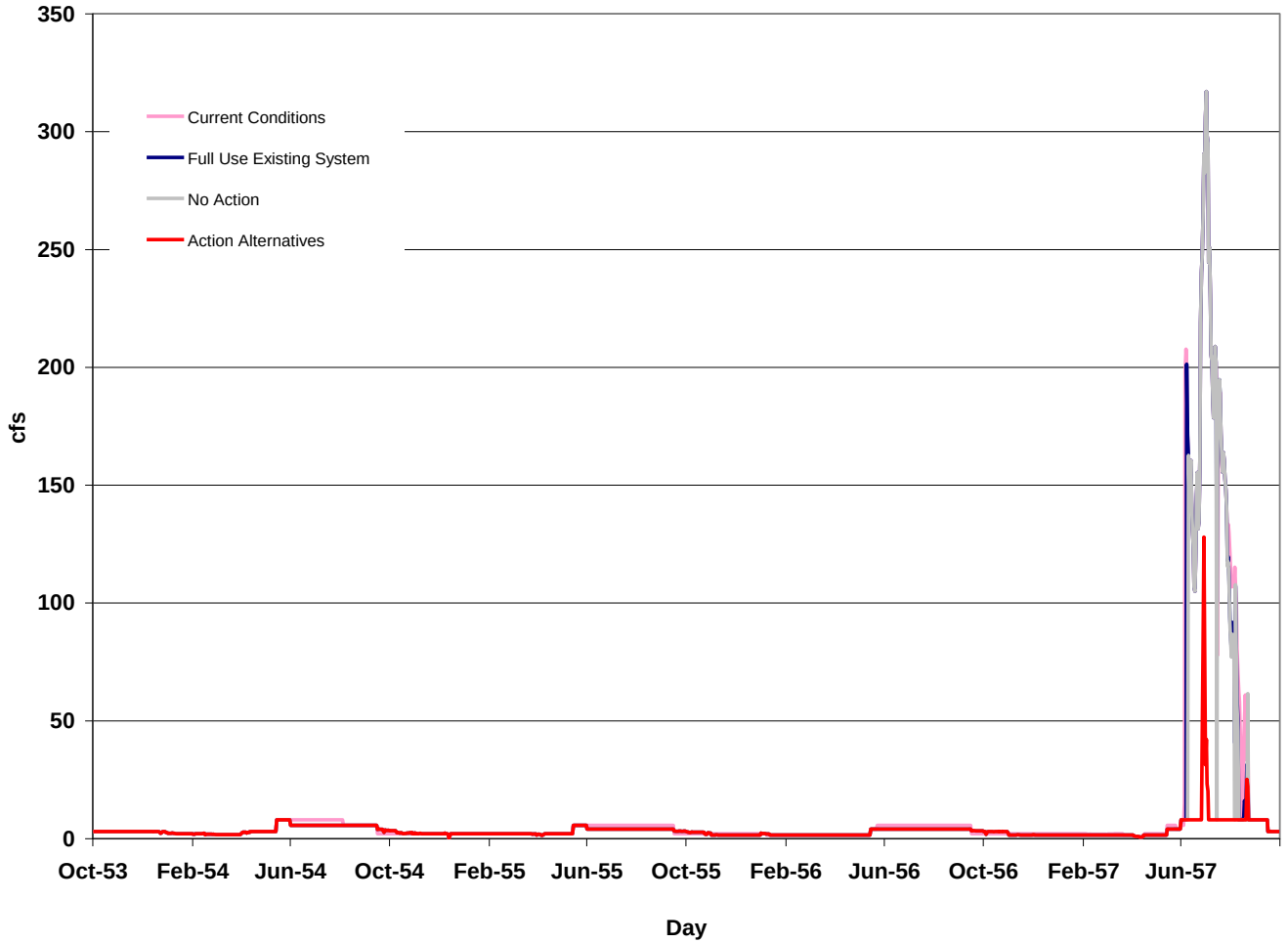


Figure H-6.4. Daily Flows 1954-1957 below Denver Water's Diversion from St. Louis Creek

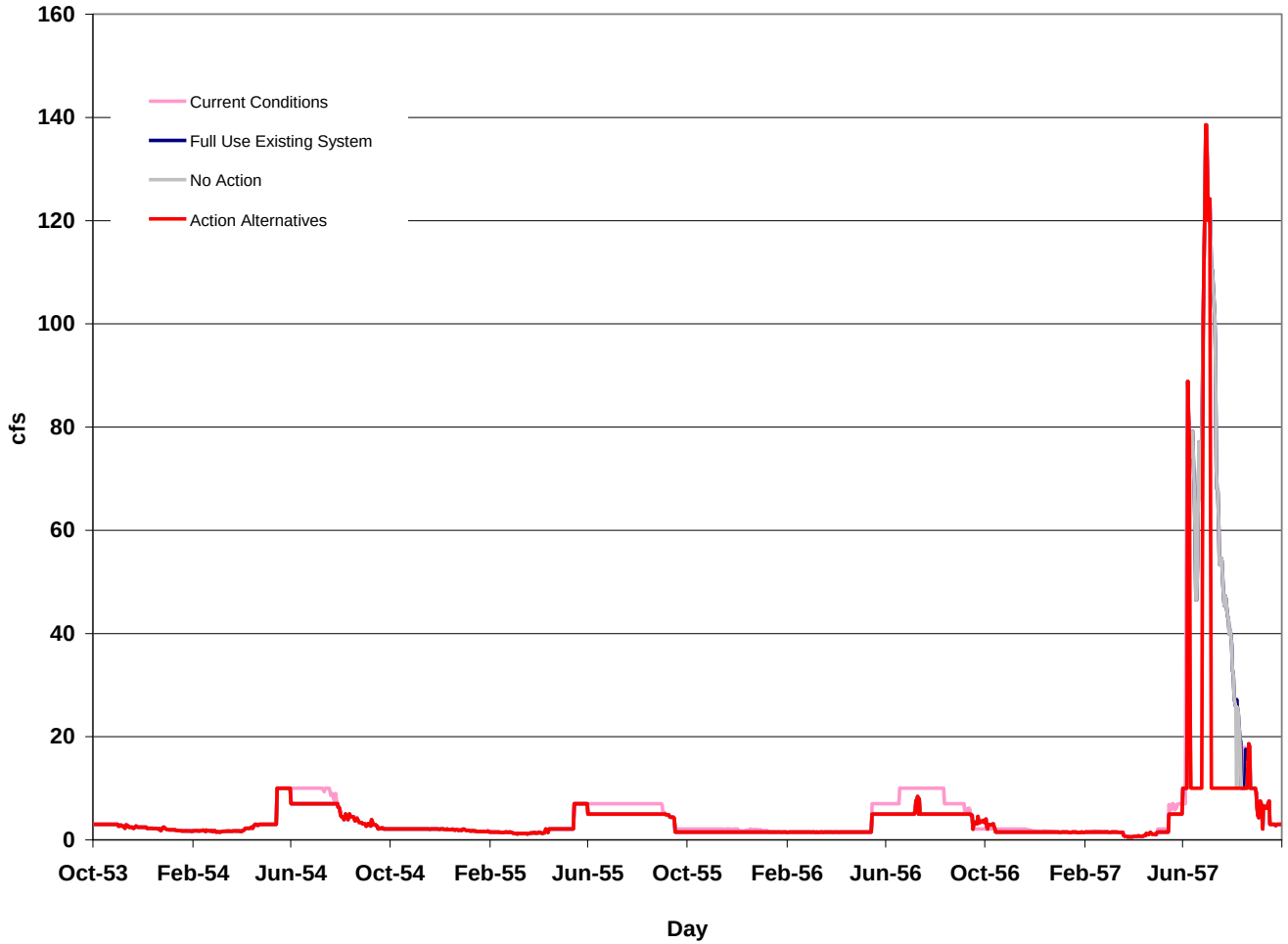


Figure H-6.5. Daily Flows 1954-1957 below Denver Water's Diversion from Main Ranch Creek

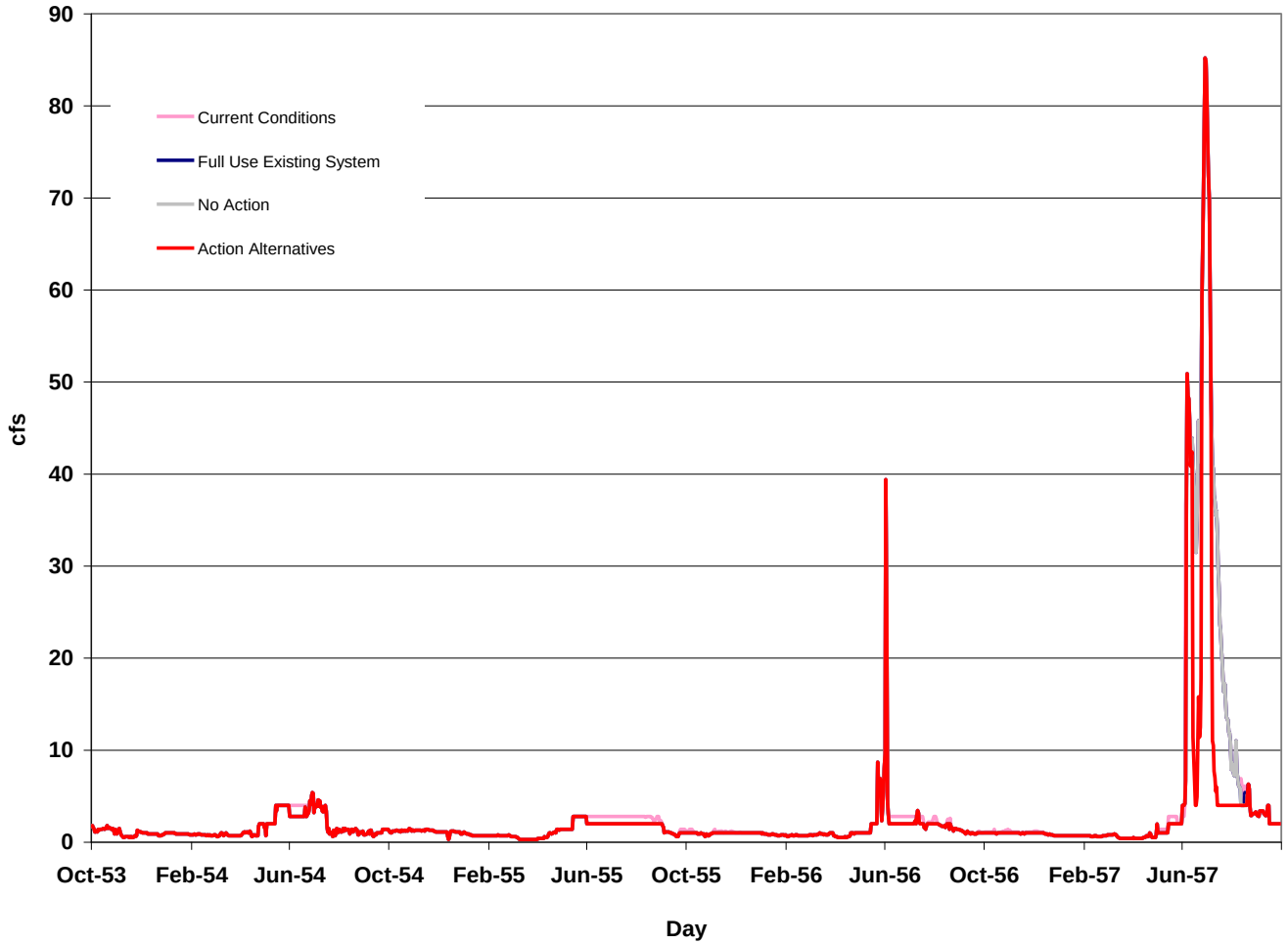


Figure H-6.6. Daily Flows 1954-1957 Fraser River below Crooked Creek

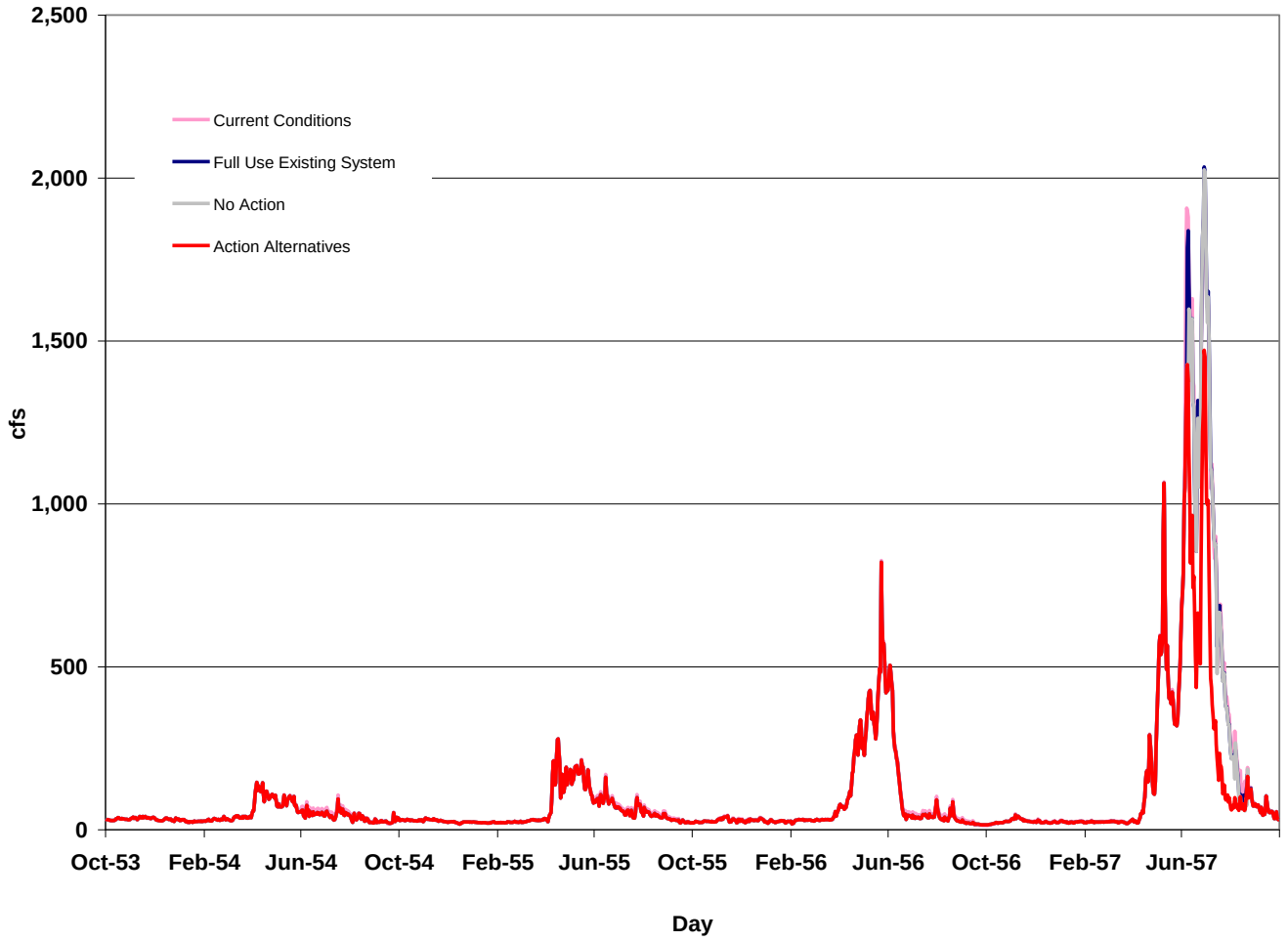


Figure H-6.7. Daily Flows 1954-1957 below Denver Water's Diversion from Bobtail Creek

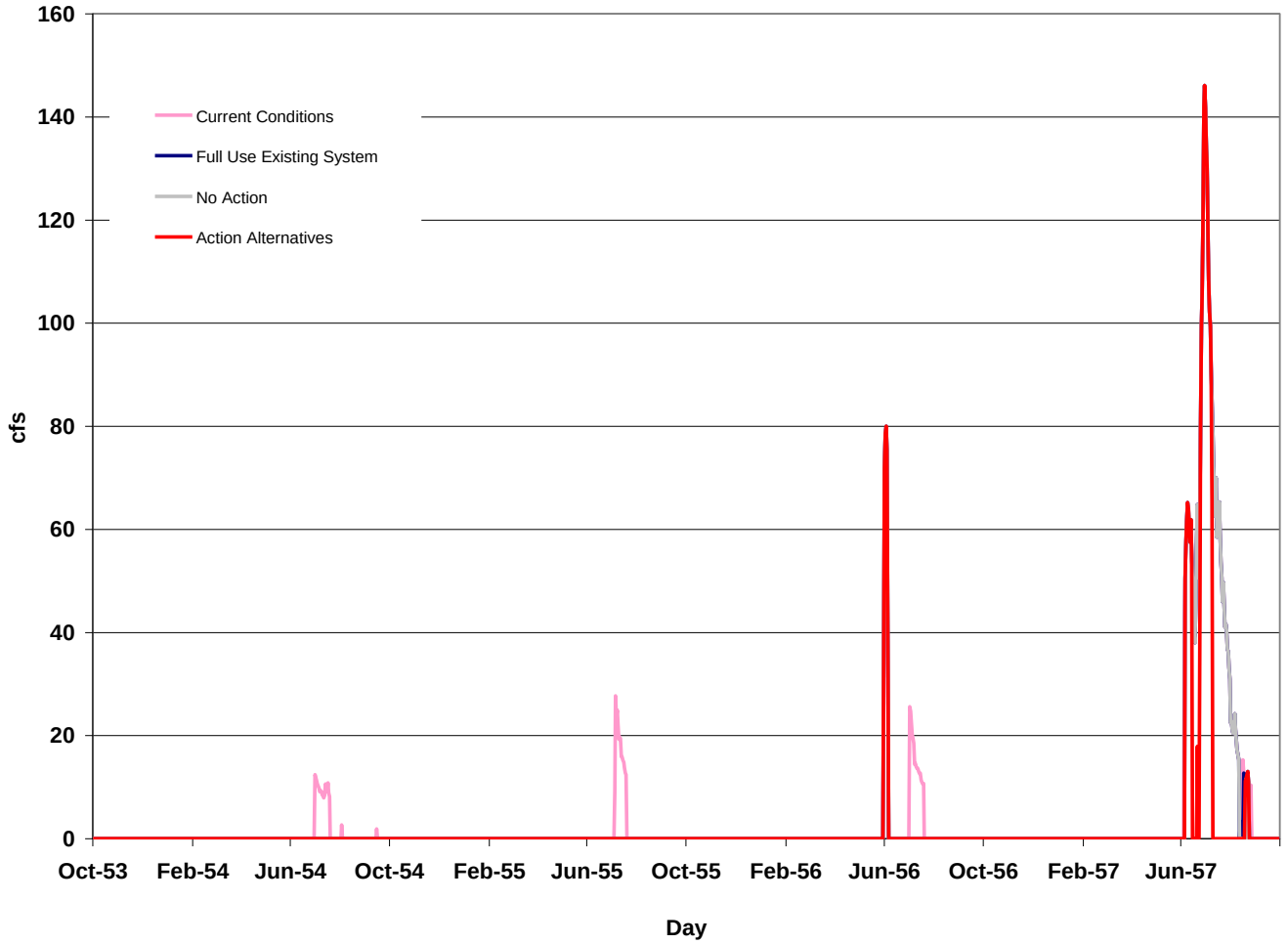


Figure H-6.8. Daily Flows 1954-1957 Williams Fork River below Steelman Creek Gage

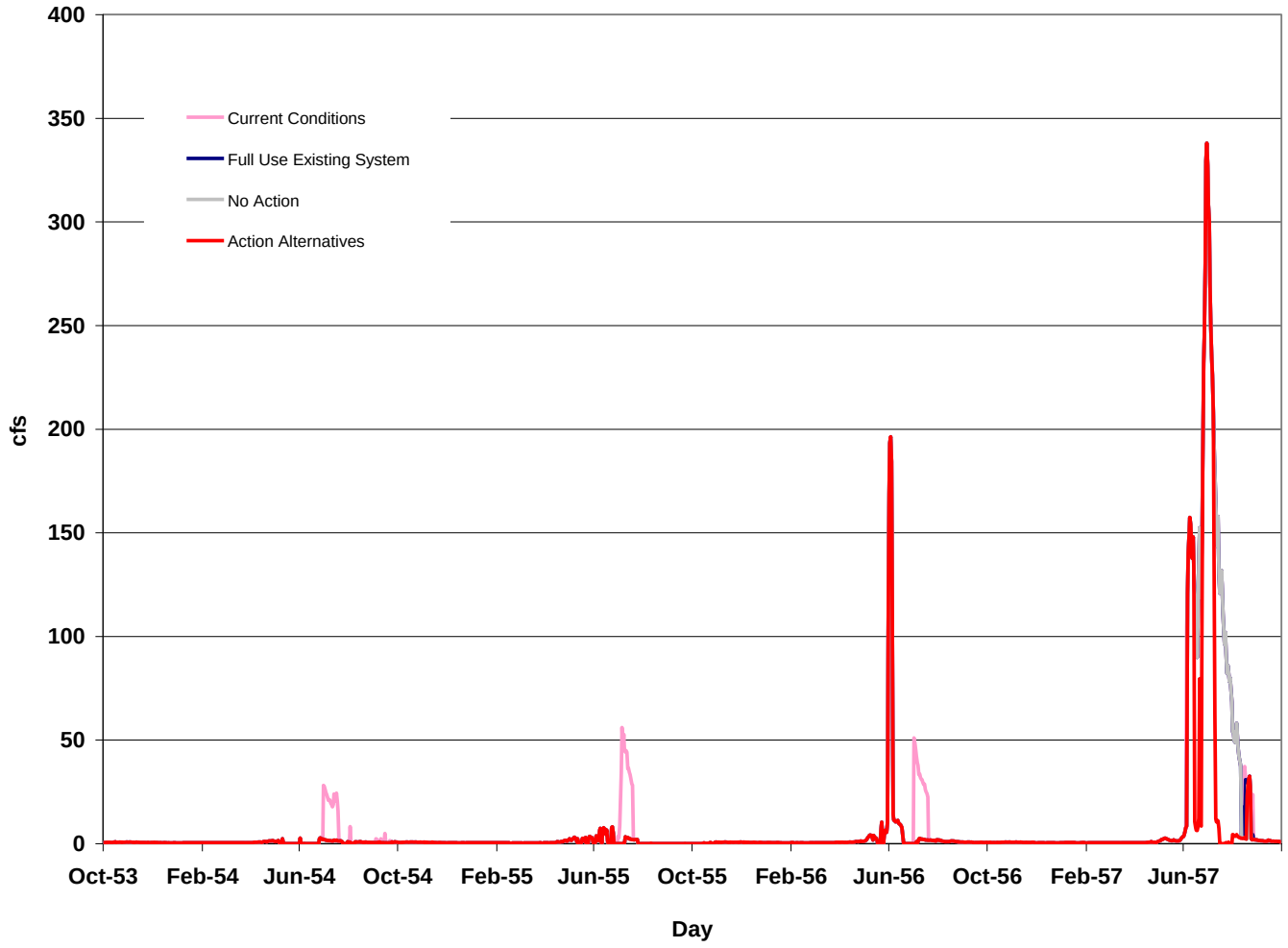


Figure H-6.9. Daily Flows 1954-1957 Colorado River below Windy Gap

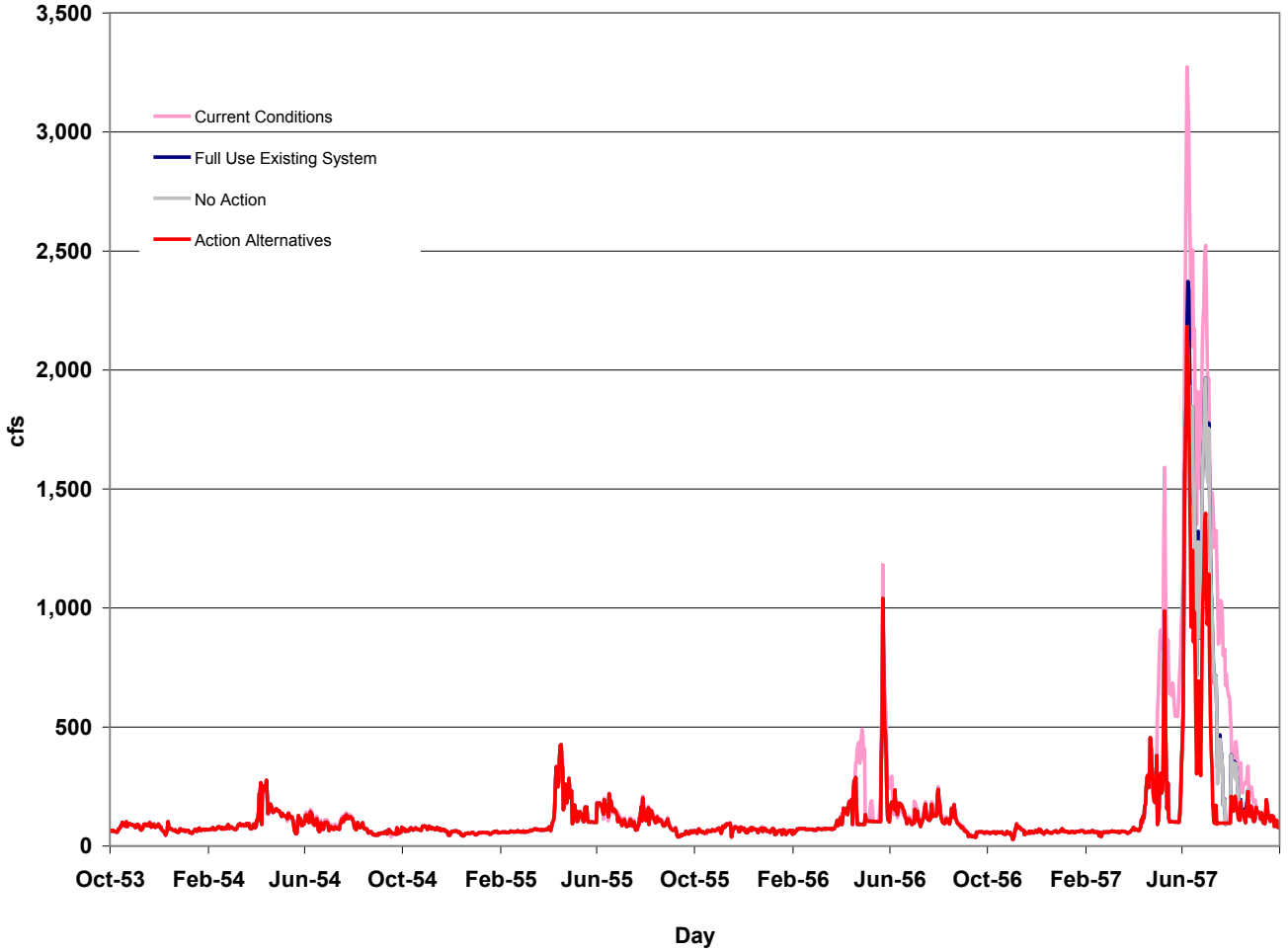
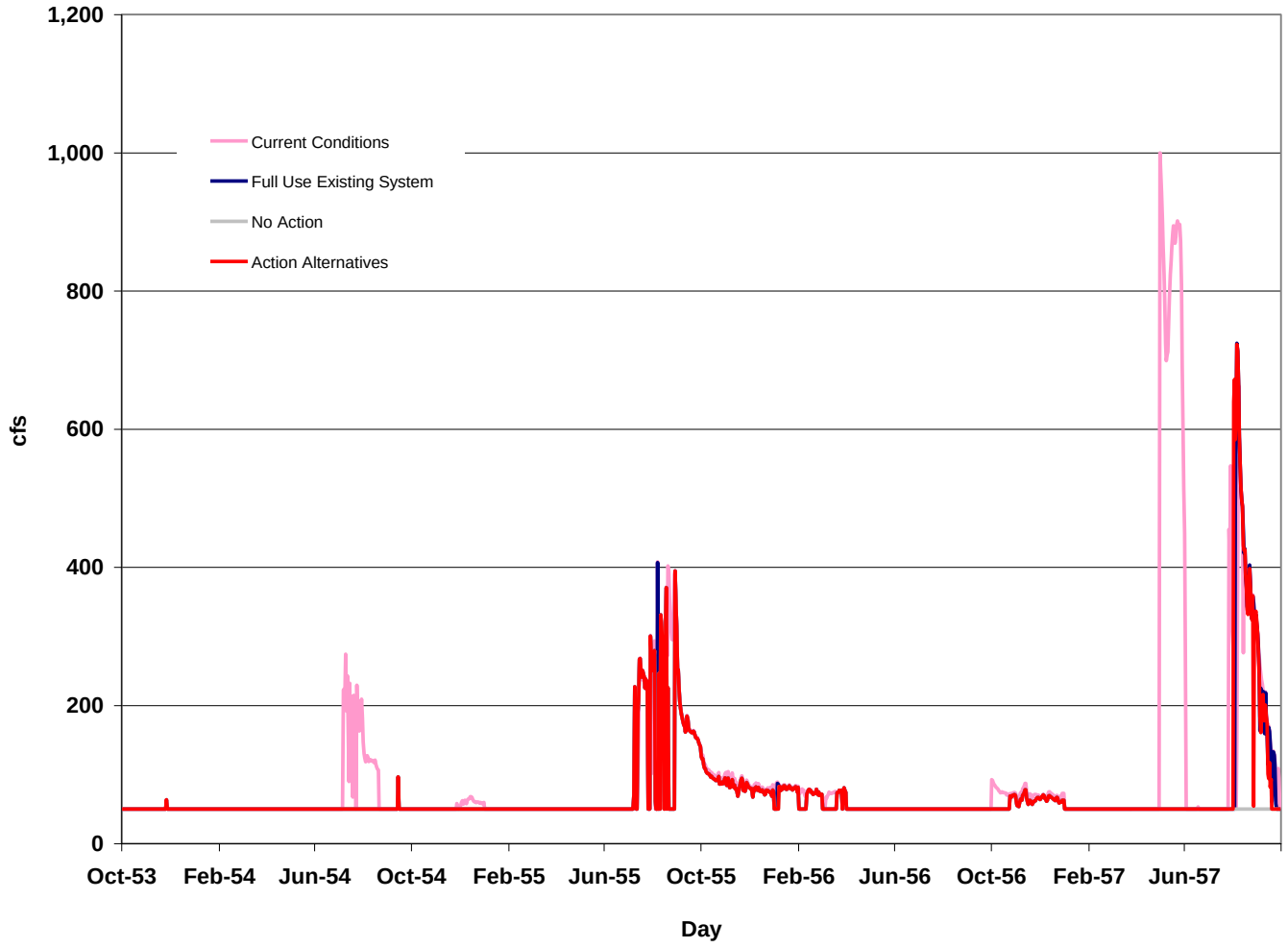


Figure H-6.10. Daily Flows 1954-1957 Dillon Reservoir Outflow



Appendix H-7
EIS Locations of Interest Comparisons

- Table H-7.1 Comparison of Average Annual Flows, Reservoir Outflows, and Diversions versus Current Conditions (AF)
- Table H-7.2 Comparison of Average Annual Dry Year Flows, Reservoir Outflows, and Diversions versus Current Conditions (AF)
- Table H-7.3 Comparison of Average Annual Wet Year Flows, Reservoir Outflows, and Diversions versus Current Conditions (AF)
- Table H-7.4 Comparison of Average Annual Flows, Reservoir Outflows, and Diversions versus Full Use of the Existing System (AF)
- Table H-7.5 Comparison of Average Annual Dry Year Flows, Reservoir Outflows, and Diversions versus Full Use of the Existing System (AF)
- Table H-7.6 Comparison of Average Annual Wet Year Flows, Reservoir Outflows, and Diversions versus Full Use of the Existing System (AF)

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Table H-7.1. Comparison of Average Annual Flows, Reservoir Outflows, and Diversions versus Current Conditions (AF)

Location	Node	Current Conditions	Full Use Existing System			Alternative 1a			Alternative 1c			Alternative 8a			Alternative 10a			Alternative 13a			No Action		
		Avg. Annual Flow	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff
Fraser River Basin																							
Moffat Tunnel diversions	N/A	**63,799**	**66,512**	**2,713**	4%	**76,797**	12,997	20%	**76,639**	12,840	20%	**75,674**	11,875	19%	**75,667**	11,868	19%	**76,328**	12,529	20%	**68,817**	5,018	8%
Below DW's Diversion from Fraser River	2120	**5,271**	**4,863**	**-408**	-8%	**3,426**	-1,845	-35%	**3,440**	-1,831	-35%	**3,509**	-1,762	-33%	**3,507**	-1,764	-33%	**3,451**	-1,820	-35%	**4,500**	-771	-15%
Below DW's Diversion from Jim Creek	2160	**826**	**726**	**-100**	-12%	**353**	-473	-57%	**383**	-443	-54%	**365**	-461	-56%	**364**	-462	-56%	**363**	-463	-56%	**597**	-229	-28%
Below DW's Diversions from Cub and Buck Creeks	2540	**300**	**280**	**-20**	-7%	**192**	-108	-36%	**194**	-106	-35%	**195**	-105	-35%	**195**	-105	-35%	**194**	-106	-35%	**256**	-44	-15%
Below DW's Diversion from Cooper Creek	2380	**84**	**71**	**-13**	-15%	**49**	-35	-42%	**49**	-35	-42%	**50**	-34	-40%	**50**	-34	-40%	**50**	-34	-40%	**65**	-19	-23%
Fraser River near Winter Park gage	2580	**8,529**	**7,971**	**-559**	-7%	**6,053**	-2,477	-29%	**6,097**	-2,432	-29%	**6,150**	-2,379	-28%	**6,148**	-2,381	-28%	**6,090**	-2,440	-29%	**7,451**	-1,078	-13%
Vasquez Creek below Gumlick Tunnel	2260	**14,836**	**15,724**	**888**	6%	**17,631**	2,795	19%	**17,599**	2,763	19%	**17,354**	2,518	17%	**17,340**	2,504	17%	**17,287**	2,451	17%	**16,139**	1,303	9%
Below DW's Diversion from Vasquez Creek	2280	**7,927**	**7,513**	**-414**	-5%	**5,503**	-2,424	-31%	**5,558**	-2,369	-30%	**5,757**	-2,170	-27%	**5,756**	-2,171	-27%	**5,616**	-2,311	-29%	**7,098**	-829	-10%
Below DW's Diversion from Little Vasquez Creek	2340	**617**	**521**	**-96**	-16%	**203**	-414	-67%	**196**	-421	-68%	**230**	-387	-63%	**231**	-386	-63%	**210**	-407	-66%	**456**	-161	-26%
Vasquez Creek gage	2370	**10,458**	**7,281**	**-3,177**	-30%	**4,959**	-5,499	-53%	**5,007**	-5,451	-52%	**5,241**	-5,218	-50%	**5,241**	-5,217	-50%	**5,079**	-5,380	-51%	**6,801**	-3,657	-35%
Fraser River below Vasquez Creek	2600	**20,169**	**16,505**	**-3,664**	-18%	**12,265**	-7,904	-39%	**12,357**	-7,812	-39%	**12,644**	-7,526	-37%	**12,642**	-7,527	-37%	**12,421**	-7,748	-38%	**15,505**	-4,664	-23%
Below DW's Diversions from Elk Creek and Tributaries	2300	**877**	**833**	**-44**	-5%	**598**	-279	-32%	**596**	-281	-32%	**615**	-262	-30%	**614**	-263	-30%	**603**	-274	-31%	**786**	-91	-10%
Below DW's Diversion from St. Louis Creek	2170	**6,190**	**5,965**	**-225**	-4%	**4,976**	-1,214	-20%	**4,985**	-1,205	-19%	**5,076**	-1,114	-18%	**5,077**	-1,113	-18%	**5,023**	-1,167	-19%	**5,757**	-433	-7%
Below DW's Diversions from St. Louis Creek Tributaries	2180	**2,683**	**2,486**	**-197**	-7%	**1,445**	-1,238	-46%	**1,444**	-1,239	-46%	**1,564**	-1,119	-42%	**1,557**	-1,126	-42%	**1,491**	-1,192	-44%	**2,273**	-410	-15%
St Louis Creek near Fraser gage	2200	**15,648**	**15,226**	**-422**	-3%	**13,196**	-2,452	-16%	**13,204**	-2,444	-16%	**13,415**	-2,233	-14%	**13,409**	-2,239	-14%	**13,288**	-2,360	-15%	**14,805**	-843	-5%
Below DW's Diversion from King Creek	2220	**118**	**109**	**-9**	-7%	**62**	-56	-47%	**62**	-56	-47%	**67**	-51	-43%	**67**	-51	-43%	**64**	-54	-46%	**99**	-19	-16%
Fraser River below St. Louis Creek	2700	**37,887**	**30,898**	**-6,990**	-18%	**24,345**	-13,542	-36%	**24,443**	-13,444	-35%	**24,964**	-12,923	-34%	**24,957**	-12,930	-34%	**24,600**	-13,287	-35%	**29,419**	-8,468	-22%
Below DW's Englewood Ranch Gravity System Diversions	2480	**7,636**	**7,572**	**-64**	-1%	**7,327**	-309	-4%	**7,328**	-308	-4%	**7,367**	-269	-4%	**7,367**	-269	-4%	**7,342**	-294	-4%	**7,488**	-148	-2%
Below DW's North Fork Ranch & Dribble Creek diversions	2490	**1,479**	**1,425**	**-54**	-4%	**1,081**	-397	-27%	**1,086**	-393	-27%	**1,126**	-353	-24%	**1,126**	-353	-24%	**1,100**	-378	-26%	**1,361**	-118	-8%
Below DW's Main Ranch Creek diversion	2500	**2,841**	**2,787**	**-54**	-2%	**2,395**	-446	-16%	**2,402**	-439	-15%	**2,442**	-399	-14%	**2,441**	-400	-14%	**2,415**	-426	-15%	**2,712**	-129	-5%
Below DW's Diversion from Middle & South Fork of Ranch Ck	2520	**2,291**	**2,195**	**-96**	-4%	**1,387**	-904	-39%	**1,401**	-890	-39%	**1,480**	-811	-35%	**1,482**	-809	-35%	**1,426**	-865	-38%	**2,036**	-255	-11%
Fraser River below Crooked Creek	2810	**85,090**	**82,406**	**-2,684**	-3%	**74,031**	-11,059	-13%	**74,156**	-10,934	-13%	**74,875**	-10,214	-12%	**74,868**	-10,221	-12%	**74,378**	-10,712	-13%	**80,516**	-4,573	-5%
Fraser River At Granby gage	2900	**94,579**	**91,562**	**-3,017**	-3%	**83,187**	-11,392	-12%	**83,312**	-11,267	-12%	**84,032**	-10,547	-11%	**84,025**	-10,554	-11%	**83,534**	-11,045	-12%	**89,674**	-4,905	-5%
Williams Fork Basin																							
Gumlick Tunnel diversions	N/A	**8,853**	**9,740**	**887**	10%	**11,648**	2,795	32%	**11,615**	2,762	31%	**11,370**	2,517	28%	**11,357**	2,504	28%	**11,526**	2,673	30%	**10,155**	1,302	15%
Below DW's Diversion from Steelman Creek	3100	**2,084**	**1,855**	**-229**	-11%	**1,398**	-686	-33%	**1,405**	-679	-33%	**1,462**	-622	-30%	**1,466**	-618	-30%	**1,425**	-659	-32%	**1,751**	-333	-16%
Below DW's Diversion from Bobtail Creek	3150	**3,609**	**3,218**	**-391**	-11%	**2,364**	-1,245	-34%	**2,377**	-1,232	-34%	**2,496**	-1,113	-31%	**2,501**	-1,108	-31%	**2,421**	-1,188	-33%	**3,035**	-574	-16%
Below DW's Diversion from Jones Creek	3200	**1,152**	**1,024**	**-128**	-11%	**794**	-358	-31%	**798**	-354	-31%	**830**	-322	-28%	**831**	-321	-28%	**809**	-343	-30%	**968**	-184	-16%
Below DW's Diversion from McQueary Creek	3250	**1,364**	**1,224**	**-140**	-10%	**858**	-506	-37%	**866**	-498	-37%	**904**	-460	-34%	**907**	-457	-34%	**880**	-484	-35%	**1,151**	-213	-16%
Williams Fork River below Steelman Creek Gage	3300	**9,600**	**8,712**	**-888**	-9%	**6,805**	-2,795	-29%	**6,838**	-2,762	-29%	**7,083**	-2,517	-26%	**7,096**	-2,504	-26%	**6,927**	-2,673	-28%	**8,297**	-1,302	-14%
Williams Fork above Darling Creek gage	3600	**21,977**	**21,089**	**-888**	-4%	**19,182**	-2,795	-13%	**19,214**	-2,762	-13%	**19,460**	-2,517	-11%	**19,473**	-2,504	-11%	**19,303**	-2,673	-12%	**20,674**	-1,302	-6%
Williams Fork near Leal gage	3750	**66,446**	**65,558**	**-888**	-1%	**63,651**	-2,796	-4%	**63,683**	-2,763	-4%	**63,928**	-2,518	-4%	**63,942**	-2,505	-4%	**63,772**	-2,674	-4%	**65,143**	-1,303	-2%
Williams Fork Reservoir outflow	3950	**87,715**	**96,664**	**8,949**	10%	**94,963**	7,248	8%	**95,008**	7,293	8%	**95,236**	7,521	9%	**95,258**	7,543	9%	**95,066**	7,351	8%	**96,453**	8,738	10%

Table H-7.1. Comparison of Average Annual Flows, Reservoir Outflows, and Diversions versus Current Conditions (AF)

Location	Node	Current Conditions	Full Use Existing System			Alternative 1a			Alternative 1c			Alternative 8a			Alternative 10a			Alternative 13a			No Action		
		Avg. Annual Flow	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff
Colorado River Mainstem																							
Colorado River below Windy Gap diversion	1350	**155,653**	**134,685**	**-20,968**	-13%	**126,767**	-28,886	-19%	**126,868**	-28,785	-18%	**127,628**	-28,025	-18%	**127,618**	-28,035	-18%	**127,123**	-28,530	-18%	**132,912**	-22,741	-15%
Colorado River blw Confluence with Williams Fork River	1430	**265,063**	**252,699**	**-12,364**	-5%	**243,081**	-21,982	-8%	**243,228**	-21,835	-8%	**244,215**	-20,848	-8%	**244,228**	-20,835	-8%	**243,540**	-21,523	-8%	**250,717**	-14,346	-5%
Colorado River near Kremmling gage	5020	**698,958**	**650,723**	**-48,235**	-7%	**636,349**	-62,609	-9%	**636,113**	-62,845	-9%	**637,978**	-60,980	-9%	**637,944**	-61,015	-9%	**637,118**	-61,840	-9%	**638,639**	-60,319	-9%
Muddy Creek Basin																							
Wolford Mountain Reservoir outflow	1600	**63,540**	**63,824**	**284**	0%	**63,878**	338	1%	**63,878**	337	1%	**63,879**	338	1%	**63,881**	341	1%	**63,880**	340	1%	**63,930**	390	1%
Blue River Basin																							
West Portal Roberts Tunnel diversion	4240	**69,676**	**96,939**	**27,263**	39%	**101,775**	32,099	46%	**102,191**	32,515	47%	**101,281**	31,605	45%	**101,321**	31,645	45%	**101,461**	31,785	46%	**107,254**	37,578	54%
Dillon Reservoir outflow	4250	**124,392**	**96,668**	**-27,724**	-22%	**91,881**	-32,511	-26%	**91,485**	-32,907	-26%	**92,374**	-32,019	-26%	**92,329**	-32,063	-26%	**92,186**	-32,206	-26%	**86,485**	-37,907	-30%
Blue River below Boulder Creek	4500	**184,296**	**156,130**	**-28,166**	-15%	**151,343**	-32,953	-18%	**150,947**	-33,349	-18%	**151,836**	-32,460	-18%	**151,791**	-32,505	-18%	**151,648**	-32,648	-18%	**145,947**	-38,349	-21%
Green Mountain Reservoir outflow	4650	**284,276**	**256,192**	**-28,085**	-10%	**251,382**	-32,894	-12%	**251,000**	-33,276	-12%	**251,873**	-32,403	-11%	**251,825**	-32,451	-11%	**251,689**	-32,588	-11%	**245,982**	-38,294	-13%
Blue River at mouth	4800	**306,163**	**278,089**	**-28,074**	-9%	**273,279**	-32,884	-11%	**272,898**	-33,265	-11%	**273,775**	-32,388	-11%	**273,724**	-32,439	-11%	**273,588**	-32,575	-11%	**267,882**	-38,281	-13%
South Boulder Creek Basin																							
South Boulder Creek at Pinecliffe gage	57120	**106,043**	**108,752**	**2,709**	3%	**119,036**	12,993	12%	**118,878**	12,835	12%	**117,913**	11,870	11%	**117,907**	11,863	11%	**118,567**	12,524	12%	**111,056**	5,013	5%
Gross Reservoir inflow	57140	**112,902**	**115,652**	**2,750**	2%	**126,090**	13,188	12%	**125,930**	13,028	12%	**124,950**	12,048	11%	**124,943**	12,041	11%	**125,614**	12,712	11%	**117,991**	5,089	5%
Gross Reservoir outflow	57140	**111,454**	**114,079**	**2,625**	2%	**123,757**	12,303	11%	**123,815**	12,361	11%	**122,776**	11,322	10%	**122,773**	11,319	10%	**123,363**	11,909	11%	**116,378**	4,924	4%
South Boulder Creek near Eldorado Springs gage	57180	**46,680**	**46,330**	**-351**	-1%	**45,345**	-1,335	-3%	**45,310**	-1,371	-3%	**45,330**	-1,351	-3%	**45,332**	-1,349	-3%	**45,337**	-1,343	-3%	**46,091**	-590	-1%
North Fork South Platte River Basin																							
North Fork South Platte below Geneva Creek gage	50700	**117,494**	**143,778**	**26,284**	22%	**148,480**	30,986	26%	**148,878**	31,384	27%	**148,005**	30,510	26%	**148,043**	30,549	26%	**148,180**	30,686	26%	**153,685**	36,190	31%
North Fork South Platte above Pine	50750	**141,915**	**168,195**	**26,280**	19%	**172,897**	30,982	22%	**173,295**	31,380	22%	**172,421**	30,506	21%	**172,460**	30,545	22%	**172,596**	30,681	22%	**178,102**	36,186	25%
South Platte River Mainstem																							
Antero Reservoir outflow	50150	**21,674**	**21,723**	**49**	0%	**21,734**	60	0%	**21,735**	61	0%	**21,734**	59	0%	**21,733**	59	0%	**21,732**	58	0%	**21,787**	113	1%
Eleven Mile Reservoir outflow	50300	**104,564**	**105,228**	**665**	1%	**105,247**	684	1%	**105,268**	705	1%	**105,264**	700	1%	**105,233**	669	1%	**105,161**	597	1%	**105,583**	1,020	1%
Cheesman Reservoir outflow	50450	**180,255**	**180,900**	**646**	0%	**180,903**	648	0%	**180,925**	670	0%	**180,918**	664	0%	**180,888**	633	0%	**180,816**	561	0%	**181,227**	973	1%
South Platte River at Waterton gage	51200	**112,256**	**100,722**	**-11,534**	-10%	**98,042**	-14,214	-13%	**97,889**	-14,367	-13%	**98,030**	-14,226	-13%	**98,027**	-14,229	-13%	**97,941**	-14,315	-13%	**96,918**	-15,338	-14%
South Platte below Chatfield Resevoir	51290	**122,191**	**109,221**	**-12,970**	-11%	**106,854**	-15,337	-13%	**106,705**	-15,486	-13%	**106,803**	-15,388	-13%	**106,802**	-15,388	-13%	**106,712**	-15,479	-13%	**105,046**	-17,145	-14%
South Platte River at Denver gage	51540	**236,313**	**229,265**	**-7,048**	-3%	**228,420**	-7,893	-3%	**228,284**	-8,030	-3%	**228,351**	-7,962	-3%	**228,358**	-7,956	-3%	**228,270**	-8,044	-3%	**226,008**	-10,305	-4%
South Platte River at Henderson gage	58440	**285,978**	**279,342**	**-6,636**	-2%	**283,614**	-2,364	-1%	**283,537**	-2,441	-1%	**282,036**	-3,942	-1%	**282,662**	-3,316	-1%	**285,029**	-949	0%	**281,256**	-4,722	-2%

Note: A positive difference denotes an increase in flow, whereas a negative difference denotes a decrease in flow.

Table H-7.2. Comparison of Average Annual Dry Year Flows, Reservoir Outflows, and Diversions versus Current Conditions (AF)

Location	Node	Current Conditions	Full Use Existing System			Alternative 1a			Alternative 1c			Alternative 8a			Alternative 10a			Alternative 13a			No Action		
		Avg. Annual Flow	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff
Fraser River Basin																							
Moffat Tunnel diversions	N/A	**52,739**	**54,698**	**1,959**	4%	**54,698**	1,959	4%	**54,698**	1,959	4%	**54,698**	1,959	4%	**54,698**	1,959	4%	**54,698**	1,959	4%	**54,698**	1,959	4%
Below DW's Diversion from Fraser River	2120	**2,429**	**2,159**	**-270**	-11%	**2,159**	-270	-11%	**2,159**	-270	-11%	**2,159**	-270	-11%	**2,159**	-270	-11%	**2,159**	-270	-11%	**2,159**	-270	-11%
Below DW's Diversion from Jim Creek	2160	**32**	**33**	**1**	3%	**33**	1	3%	**33**	1	3%	**33**	1	3%	**33**	1	3%	**33**	1	3%	**33**	1	3%
Below DW's Diversions from Cub and Buck Creeks	2540	**137**	**136**	**-1**	-1%	**137**	0	0%	**137**	0	0%	**137**	0	0%	**137**	0	0%	**137**	0	0%	**137**	0	0%
Below DW's Diversion from Cooper Creek	2380	**51**	**47**	**-4**	-8%	**47**	-4	-8%	**47**	-4	-8%	**47**	-4	-8%	**47**	-4	-8%	**47**	-4	-8%	**47**	-4	-8%
Fraser River near Winter Park gage	2580	**4,193**	**3,903**	**-290**	-7%	**3,903**	-290	-7%	**3,903**	-290	-7%	**3,903**	-290	-7%	**3,903**	-290	-7%	**3,903**	-290	-7%	**3,903**	-290	-7%
Vasquez Creek below Gumlick Tunnel	2260	**12,643**	**13,924**	**1,281**	10%	**13,924**	1,281	10%	**13,924**	1,281	10%	**13,924**	1,281	10%	**13,924**	1,281	10%	**13,924**	1,281	10%	**13,924**	1,281	10%
Below DW's Diversion from Vasquez Creek	2280	**3,101**	**2,946**	**-155**	-5%	**2,946**	-155	-5%	**2,946**	-155	-5%	**2,946**	-155	-5%	**2,946**	-155	-5%	**2,946**	-155	-5%	**2,946**	-155	-5%
Below DW's Diversion from Little Vasquez Creek	2340	**34**	**36**	**2**	6%	**36**	2	6%	**36**	2	6%	**36**	2	6%	**36**	2	6%	**36**	2	6%	**36**	2	6%
Vasquez Creek gage	2370	**4,220**	**1,407**	**-2,813**	-67%	**1,407**	-2,813	-67%	**1,407**	-2,813	-67%	**1,407**	-2,813	-67%	**1,407**	-2,813	-67%	**1,407**	-2,813	-67%	**1,407**	-2,813	-67%
Fraser River below Vasquez Creek	2600	**8,831**	**5,797**	**-3,034**	-34%	**5,797**	-3,034	-34%	**5,797**	-3,034	-34%	**5,797**	-3,034	-34%	**5,797**	-3,034	-34%	**5,797**	-3,034	-34%	**5,797**	-3,034	-34%
Below DW's Diversions from Elk Creek and Tributaries	2300	**336**	**336**	**0**	0%	**336**	0	0%	**336**	0	0%	**336**	0	0%	**336**	0	0%	**336**	0	0%	**336**	0	0%
Below DW's Diversion from St. Louis Creek	2170	**3,043**	**2,806**	**-237**	-8%	**2,806**	-237	-8%	**2,806**	-237	-8%	**2,806**	-237	-8%	**2,806**	-237	-8%	**2,806**	-237	-8%	**2,806**	-237	-8%
Below DW's Diversions from St. Louis Creek Tributaries	2180	**0**	**0**	**0**	0%	**0**	0	0%	**0**	0	0%	**0**	0	0%	**0**	0	0%	**0**	0	0%	**0**	0	0%
St Louis Creek near Fraser gage	2200	**7,880**	**7,645**	**-235**	-3%	**7,645**	-235	-3%	**7,645**	-235	-3%	**7,645**	-235	-3%	**7,645**	-235	-3%	**7,645**	-235	-3%	**7,645**	-235	-3%
Below DW's Diversion from King Creek	2220	**0**	**0**	**0**	0%	**0**	0	0%	**0**	0	0%	**0**	0	0%	**0**	0	0%	**0**	0	0%	**0**	0	0%
Fraser River below St. Louis Creek	2700	**14,606**	**8,525**	**-6,081**	-42%	**8,525**	-6,081	-42%	**8,525**	-6,081	-42%	**8,525**	-6,081	-42%	**8,525**	-6,081	-42%	**8,525**	-6,081	-42%	**8,525**	-6,081	-42%
Below DW's Englewood Ranch Gravity System Diversions	2480	**3,529**	**3,532**	**3**	0%	**3,532**	3	0%	**3,532**	3	0%	**3,532**	3	0%	**3,532**	3	0%	**3,532**	3	0%	**3,532**	3	0%
Below DW's North Fork Ranch & Dribble Creek diversions	2490	**101**	**118**	**17**	17%	**118**	17	17%	**118**	17	17%	**118**	17	17%	**118**	17	17%	**118**	17	17%	**118**	17	17%
Below DW's Main Ranch Creek diversion	2500	**1,249**	**1,170**	**-79**	-6%	**1,170**	-79	-6%	**1,170**	-79	-6%	**1,170**	-79	-6%	**1,170**	-79	-6%	**1,170**	-79	-6%	**1,170**	-79	-6%
Below DW's Diversion from Middle & South Fork of Ranch Ck	2520	**12**	**12**	**0**	0%	**12**	0	0%	**12**	0	0%	**12**	0	0%	**12**	0	0%	**12**	0	0%	**12**	0	0%
Fraser River below Crooked Creek	2810	**36,516**	**34,970**	**-1,546**	-4%	**34,970**	-1,546	-4%	**34,970**	-1,546	-4%	**34,970**	-1,546	-4%	**34,970**	-1,546	-4%	**34,970**	-1,546	-4%	**34,970**	-1,546	-4%
Fraser River At Granby gage	2900	**39,164**	**37,291**	**-1,873**	-5%	**37,291**	-1,873	-5%	**37,291**	-1,873	-5%	**37,291**	-1,873	-5%	**37,291**	-1,873	-5%	**37,291**	-1,873	-5%	**37,291**	-1,873	-5%
Williams Fork Basin																							
Gumlick Tunnel diversions	N/A	**9,198**	**10,479**	**1,281**	14%	**10,479**	1,281	14%	**10,479**	1,281	14%	**10,479**	1,281	14%	**10,479**	1,281	14%	**10,479**	1,281	14%	**10,479**	1,281	14%
Below DW's Diversion from Steelman Creek	3100	**394**	**69**	**-325**	-82%	**69**	-325	-82%	**69**	-325	-82%	**69**	-325	-82%	**69**	-325	-82%	**69**	-325	-82%	**69**	-325	-82%
Below DW's Diversion from Bobtail Creek	3150	**659**	**67**	**-592**	-90%	**67**	-592	-90%	**67**	-592	-90%	**67**	-592	-90%	**67**	-592	-90%	**67**	-592	-90%	**67**	-592	-90%
Below DW's Diversion from Jones Creek	3200	**234**	**51**	**-183**	-78%	**51**	-183	-78%	**51**	-183	-78%	**51**	-183	-78%	**51**	-183	-78%	**51**	-183	-78%	**51**	-183	-78%
Below DW's Diversion from McQueary Creek	3250	**218**	**38**	**-180**	-83%	**38**	-180	-83%	**38**	-180	-83%	**38**	-180	-83%	**38**	-180	-83%	**38**	-180	-83%	**38**	-180	-83%
Williams Fork River below Steelman Creek Gage	3300	**2,183**	**902**	**-1,281**	-59%	**902**	-1,281	-59%	**902**	-1,281	-59%	**902**	-1,281	-59%	**902**	-1,281	-59%	**902**	-1,281	-59%	**902**	-1,281	-59%
Williams Fork above Darling Creek gage	3600	**9,875**	**8,594**	**-1,281**	-13%	**8,594**	-1,281	-13%	**8,594**	-1,281	-13%	**8,594**	-1,281	-13%	**8,594**	-1,281	-13%	**8,594**	-1,281	-13%	**8,594**	-1,281	-13%

Table H-7.2. Comparison of Average Annual Dry Year Flows, Reservoir Outflows, and Diversions versus Current Conditions (AF)

Location	Node	Current Conditions	Full Use Existing System			Alternative 1a			Alternative 1c			Alternative 8a			Alternative 10a			Alternative 13a			No Action		
		Avg. Annual Flow	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff
Williams Fork near Leal gage	3750	**37,448**	**36,166**	**-1,282**	-3%	**36,166**	-1,282	-3%	**36,166**	-1,282	-3%	**36,166**	-1,282	-3%	**36,166**	-1,282	-3%	**36,166**	-1,282	-3%	**36,166**	-1,282	-3%
Williams Fork Reservoir outflow	3950	**70,389**	**79,520**	**9,131**	13%	**79,469**	9,080	13%	**79,519**	9,130	13%	**79,469**	9,080	13%	**79,469**	9,080	13%	**79,469**	9,080	13%	**79,593**	9,204	13%
Colorado River Mainstem																							
Colorado River below Windy Gap diversion	1350	**69,285**	**69,313**	**28**	0%	**69,313**	28	0%	**69,313**	28	0%	**69,313**	28	0%	**69,313**	28	0%	**69,313**	28	0%	**69,313**	28	0%
Colorado River blw Confluence with Williams Fork River	1430	**148,222**	**157,041**	**8,819**	6%	**156,997**	8,775	6%	**157,042**	8,820	6%	**156,997**	8,775	6%	**156,997**	8,775	6%	**156,997**	8,775	6%	**157,121**	8,899	6%
Colorado River near Kremmling gage	5020	**428,773**	**423,977**	**-4,796**	-1%	**423,855**	-4,918	-1%	**423,788**	-4,985	-1%	**423,973**	-4,800	-1%	**423,983**	-4,790	-1%	**423,891**	-4,882	-1%	**423,901**	-4,872	-1%
Muddy Creek Basin																							
Wolford Mountain Reservoir outflow	1600	**43,941**	**46,842**	**2,901**	7%	**46,843**	2,902	7%	**46,842**	2,901	7%	**46,842**	2,901	7%	**46,842**	2,901	7%	**46,843**	2,902	7%	**46,842**	2,901	7%
Blue River Basin																							
West Portal Roberts Tunnel diversion	4240	**125,491**	**149,236**	**23,745**	19%	**148,599**	23,108	18%	**148,278**	22,787	18%	**148,625**	23,134	18%	**148,512**	23,021	18%	**148,500**	23,009	18%	**154,173**	28,682	23%
Dillon Reservoir outflow	4250	**50,138**	**41,082**	**-9,056**	-18%	**41,161**	-8,977	-18%	**41,111**	-9,027	-18%	**41,161**	-8,977	-18%	**41,161**	-8,977	-18%	**41,161**	-8,977	-18%	**41,036**	-9,102	-18%
Blue River below Boulder Creek	4500	**89,901**	**80,405**	**-9,496**	-11%	**80,484**	-9,417	-10%	**80,434**	-9,467	-11%	**80,484**	-9,417	-10%	**80,484**	-9,417	-10%	**80,484**	-9,417	-10%	**80,359**	-9,542	-11%
Green Mountain Reservoir outflow	4650	**190,714**	**181,160**	**-9,554**	-5%	**181,083**	-9,631	-5%	**180,968**	-9,746	-5%	**181,201**	-9,513	-5%	**181,210**	-9,504	-5%	**181,119**	-9,595	-5%	**181,005**	-9,709	-5%
Blue River at mouth	4800	**203,588**	**194,059**	**-9,529**	-5%	**193,980**	-9,608	-5%	**193,866**	-9,722	-5%	**194,098**	-9,490	-5%	**194,107**	-9,481	-5%	**194,016**	-9,572	-5%	**193,901**	-9,687	-5%
South Boulder Creek Basin																							
South Boulder Creek at Pinecliffe gage	57120	**77,075**	**78,486**	**1,411**	2%	**78,549**	1,474	2%	**78,549**	1,474	2%	**78,549**	1,474	2%	**78,549**	1,474	2%	**78,549**	1,474	2%	**78,549**	1,474	2%
Gross Reservoir inflow	57140	**81,946**	**82,512**	**566**	1%	**82,513**	567	1%	**82,513**	567	1%	**82,513**	567	1%	**82,513**	567	1%	**82,513**	567	1%	**82,513**	567	1%
Gross Reservoir outflow	57140	**83,607**	**87,100**	**3,493**	4%	**101,089**	17,482	21%	**100,635**	17,028	20%	**99,469**	15,862	19%	**99,486**	15,879	19%	**99,634**	16,027	19%	**88,529**	4,922	6%
South Boulder Creek near Eldorado Springs gage	57180	**29,077**	**29,122**	**45**	0%	**29,268**	191	1%	**29,263**	186	1%	**29,253**	176	1%	**29,254**	177	1%	**29,255**	178	1%	**29,137**	60	0%
North Fork South Platte River Basin																							
North Fork South Platte below Geneva Creek gage	50700	**151,435**	**184,592**	**33,157**	22%	**187,368**	35,933	24%	**187,097**	35,662	24%	**187,411**	35,976	24%	**187,306**	35,871	24%	**187,377**	35,942	24%	**190,225**	38,790	26%
North Fork South Platte above Pine	50750	**161,354**	**194,676**	**33,322**	21%	**197,493**	36,139	22%	**197,224**	35,870	22%	**197,535**	36,181	22%	**197,431**	36,077	22%	**197,506**	36,152	22%	**200,350**	38,996	24%
South Platte River Mainstem																							
Antero Reservoir outflow	50150	**8,835**	**9,175**	**340**	4%	**9,443**	608	7%	**9,431**	596	7%	**9,396**	561	6%	**9,396**	561	6%	**9,396**	561	6%	**9,132**	297	3%
Eleven Mile Reservoir outflow	50300	**91,768**	**92,821**	**1,053**	1%	**93,392**	1,624	2%	**93,450**	1,682	2%	**93,351**	1,583	2%	**93,233**	1,465	2%	**93,198**	1,430	2%	**94,873**	3,105	3%
Cheesman Reservoir outflow	50450	**140,946**	**147,709**	**6,763**	5%	**150,281**	9,335	7%	**150,518**	9,572	7%	**150,329**	9,383	7%	**150,403**	9,457	7%	**150,281**	9,335	7%	**157,750**	16,804	12%
South Platte River at Waterton gage	51200	**31,508**	**29,821**	**-1,687**	-5%	**30,473**	-1,035	-3%	**30,464**	-1,044	-3%	**30,491**	-1,017	-3%	**30,471**	-1,037	-3%	**30,497**	-1,011	-3%	**29,502**	-2,006	-6%
South Platte below Chatfield Resevoir	51290	**22,413**	**20,128**	**-2,285**	-10%	**20,850**	-1,563	-7%	**20,845**	-1,568	-7%	**20,828**	-1,585	-7%	**20,789**	-1,624	-7%	**20,848**	-1,565	-7%	**18,713**	-3,700	-17%
South Platte River at Denver gage	51540	**90,565**	**95,825**	**5,260**	6%	**97,869**	7,304	8%	**97,888**	7,323	8%	**97,807**	7,242	8%	**97,788**	7,223	8%	**97,857**	7,292	8%	**95,466**	4,901	5%
South Platte River at Henderson gage	58440	**129,727**	**132,651**	**2,924**	2%	**136,366**	6,639	5%	**136,432**	6,705	5%	**134,486**	4,759	4%	**135,333**	5,606	4%	**137,369**	7,642	6%	**135,718**	5,991	5%

Note: A positive difference denotes an increase in flow, whereas a negative difference denotes a decrease in flow.
Average annual dry year flows for locations on the West Slope are based on an average of the five driest years, which include 1954, 1955, 1963, 1977, and 1981.
Average annual dry year flows for locations on the East Slope are based on an average of the five driest years, which include 1950, 1954, 1963, 1977, and 1981.

Table H-7.3. Comparison of Average Annual Wet Year Flows, Reservoir Outflows, and Diversions versus Current Conditions (AF)

Location	Node	Current Conditions	Full Use Existing System			Alternative 1a			Alternative 1c			Alternative 8a			Alternative 10a			Alternative 13a			No Action		
		Avg. Annual Flow	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff
Fraser River Basin																							
Moffat Tunnel diversions	N/A	**57,343**	**62,646**	**5,303**	9%	**74,485**	17,142	30%	**73,824**	16,481	29%	**74,155**	16,812	29%	**74,196**	16,853	29%	**74,249**	16,906	29%	**65,742**	8,399	15%
Below DW's Diversion from Fraser River	2120	**10,400**	**9,615**	**-785**	-8%	**7,486**	-2,914	-28%	**7,564**	-2,836	-27%	**7,475**	-2,925	-28%	**7,480**	-2,920	-28%	**7,468**	-2,932	-28%	**9,122**	-1,278	-12%
Below DW's Diversion from Jim Creek	2160	**2,639**	**2,375**	**-264**	-10%	**1,658**	-981	-37%	**1,725**	-914	-35%	**1,681**	-958	-36%	**1,680**	-959	-36%	**1,687**	-952	-36%	**2,111**	-528	-20%
Below DW's Diversions from Cub and Buck Creeks	2540	**665**	**610**	**-55**	-8%	**447**	-218	-33%	**448**	-217	-33%	**452**	-213	-32%	**452**	-213	-32%	**452**	-213	-32%	**566**	-99	-15%
Below DW's Diversion from Cooper Creek	2380	**106**	**81**	**-25**	-24%	**51**	-55	-52%	**51**	-55	-52%	**52**	-54	-51%	**52**	-54	-51%	**52**	-54	-51%	**70**	-36	-34%
Fraser River near Winter Park gage	2580	**16,488**	**15,341**	**-1,147**	-7%	**12,304**	-4,184	-25%	**12,448**	-4,040	-25%	**12,321**	-4,167	-25%	**12,324**	-4,164	-25%	**12,319**	-4,169	-25%	**14,531**	-1,957	-12%
Vasquez Creek below Gumlick Tunnel	2260	**15,096**	**15,871**	**775**	5%	**17,294**	2,198	15%	**17,263**	2,167	14%	**17,318**	2,222	15%	**17,313**	2,217	15%	**17,510**	2,414	16%	**16,282**	1,186	8%
Below DW's Diversion from Vasquez Creek	2280	**16,024**	**14,982**	**-1,042**	-7%	**12,549**	-3,475	-22%	**12,771**	-3,253	-20%	**12,595**	-3,429	-21%	**12,579**	-3,445	-21%	**12,572**	-3,452	-22%	**14,473**	-1,551	-10%
Below DW's Diversion from Little Vasquez Creek	2340	**1,025**	**761**	**-264**	-26%	**473**	-552	-54%	**460**	-565	-55%	**452**	-573	-56%	**467**	-558	-54%	**458**	-567	-55%	**678**	-347	-34%
Vasquez Creek gage	2370	**19,827**	**15,893**	**-3,934**	-20%	**13,172**	-6,655	-34%	**13,382**	-6,445	-33%	**13,197**	-6,630	-33%	**13,196**	-6,631	-33%	**13,180**	-6,647	-34%	**15,301**	-4,526	-23%
Fraser River below Vasquez Creek	2600	**38,687**	**33,681**	**-5,006**	-13%	**27,922**	-10,765	-28%	**28,276**	-10,411	-27%	**27,964**	-10,723	-28%	**27,967**	-10,720	-28%	**27,946**	-10,741	-28%	**32,278**	-6,409	-17%
Below DW's Diversions from Elk Creek and Tributaries	2300	**1,817**	**1,664**	**-153**	-8%	**1,403**	-414	-23%	**1,409**	-408	-22%	**1,419**	-398	-22%	**1,415**	-402	-22%	**1,416**	-401	-22%	**1,614**	-203	-11%
Below DW's Diversion from St. Louis Creek	2170	**11,765**	**11,265**	**-500**	-4%	**10,141**	-1,624	-14%	**10,213**	-1,552	-13%	**10,227**	-1,538	-13%	**10,232**	-1,533	-13%	**10,212**	-1,553	-13%	**10,961**	-804	-7%
Below DW's Diversions from St. Louis Creek Tributaries	2180	**7,459**	**6,932**	**-527**	-7%	**5,685**	-1,774	-24%	**5,774**	-1,685	-23%	**5,819**	-1,640	-22%	**5,772**	-1,687	-23%	**5,727**	-1,732	-23%	**6,562**	-897	-12%
St Louis Creek near Fraser gage	2200	**28,457**	**27,429**	**-1,028**	-4%	**25,058**	-3,399	-12%	**25,219**	-3,238	-11%	**25,279**	-3,178	-11%	**25,236**	-3,221	-11%	**25,170**	-3,287	-12%	**26,755**	-1,702	-6%
Below DW's Diversion from King Creek	2220	**336**	**305**	**-31**	-9%	**252**	-84	-25%	**254**	-82	-24%	**256**	-80	-24%	**255**	-81	-24%	**252**	-84	-25%	**290**	-46	-14%
Fraser River below St. Louis Creek	2700	**75,405**	**66,300**	**-9,105**	-12%	**57,855**	-17,550	-23%	**58,378**	-17,027	-23%	**58,137**	-17,268	-23%	**58,093**	-17,312	-23%	**58,004**	-17,401	-23%	**64,157**	-11,248	-15%
Below DW's Englewood Ranch Gravity System Diversions	2480	**12,343**	**12,109**	**-234**	-2%	**11,771**	-572	-5%	**11,779**	-564	-5%	**11,771**	-572	-5%	**11,770**	-573	-5%	**11,768**	-575	-5%	**12,017**	-326	-3%
Below DW's North Fork Ranch & Dribble Creek diversions	2490	**3,272**	**3,133**	**-139**	-4%	**2,799**	-473	-14%	**2,796**	-476	-15%	**2,798**	-474	-14%	**2,795**	-477	-15%	**2,807**	-465	-14%	**3,061**	-211	-6%
Below DW's Main Ranch Creek diversion	2500	**5,086**	**4,972**	**-114**	-2%	**4,605**	-481	-9%	**4,619**	-467	-9%	**4,622**	-464	-9%	**4,612**	-474	-9%	**4,620**	-466	-9%	**4,908**	-178	-3%
Below DW's Diversion from Middle & South Fork of Ranch Ck	2520	**5,865**	**5,607**	**-258**	-4%	**4,784**	-1,081	-18%	**4,825**	-1,040	-18%	**4,824**	-1,041	-18%	**4,833**	-1,032	-18%	**4,843**	-1,022	-17%	**5,437**	-428	-7%
Fraser River below Crooked Creek	2810	**159,392**	**154,093**	**-5,299**	-3%	**143,693**	-15,699	-10%	**144,275**	-15,117	-9%	**144,030**	-15,362	-10%	**143,980**	-15,412	-10%	**143,919**	-15,473	-10%	**151,458**	-7,934	-5%
Fraser River At Granby gage	2900	**179,398**	**173,768**	**-5,630**	-3%	**163,367**	-16,031	-9%	**163,949**	-15,449	-9%	**163,705**	-15,693	-9%	**163,655**	-15,743	-9%	**163,594**	-15,804	-9%	**171,133**	-8,265	-5%
Williams Fork Basin																							
Gumlick Tunnel diversions	N/A	**6,474**	**7,250**	**776**	12%	**8,673**	2,199	34%	**8,642**	2,168	33%	**8,696**	2,222	34%	**8,691**	2,217	34%	**8,665**	2,191	34%	**7,661**	1,187	18%
Below DW's Diversion from Steelman Creek	3100	**4,179**	**3,990**	**-189**	-5%	**3,676**	-503	-12%	**3,691**	-488	-12%	**3,672**	-507	-12%	**3,672**	-507	-12%	**3,669**	-510	-12%	**3,897**	-282	-7%
Below DW's Diversion from Bobtail Creek	3150	**7,698**	**7,349**	**-349**	-5%	**6,671**	-1,027	-13%	**6,690**	-1,008	-13%	**6,660**	-1,038	-13%	**6,664**	-1,034	-13%	**6,679**	-1,019	-13%	**7,133**	-565	-7%
Below DW's Diversion from Jones Creek	3200	**2,243**	**2,144**	**-99**	-4%	**1,987**	-256	-11%	**1,989**	-254	-11%	**1,985**	-258	-12%	**1,985**	-258	-12%	**1,982**	-261	-12%	**2,098**	-145	-6%
Below DW's Diversion from McQueary Creek	3250	**2,973**	**2,835**	**-138**	-5%	**2,561**	-412	-14%	**2,555**	-418	-14%	**2,553**	-420	-14%	**2,554**	-419	-14%	**2,572**	-401	-13%	**2,778**	-195	-7%
Williams Fork River below Steelman Creek Gage	3300	**19,181**	**18,406**	**-775**	-4%	**16,983**	-2,198	-11%	**17,014**	-2,167	-11%	**16,959**	-2,222	-12%	**16,965**	-2,216	-12%	**16,991**	-2,190	-11%	**17,995**	-1,186	-6%
Williams Fork above Darling Creek gage	3600	**38,420**	**37,645**	**-775**	-2%	**36,222**	-2,198	-6%	**36,252**	-2,168	-6%	**36,198**	-2,222	-6%	**36,203**	-2,217	-6%	**36,229**	-2,191	-6%	**37,234**	-1,186	-3%

Table H-7.3. Comparison of Average Annual Wet Year Flows, Reservoir Outflows, and Diversions versus Current Conditions (AF)

Location	Node	Current Conditions	Full Use Existing System			Alternative 1a			Alternative 1c			Alternative 8a			Alternative 10a			Alternative 13a			No Action		
		Avg. Annual Flow	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff
Williams Fork near Leal gage	3750	**103,482**	**102,706**	**-776**	-1%	**101,283**	-2,199	-2%	**101,314**	-2,168	-2%	**101,260**	-2,222	-2%	**101,265**	-2,217	-2%	**101,291**	-2,191	-2%	**102,295**	-1,187	-1%
Williams Fork Reservoir outflow	3950	**133,027**	**151,134**	**18,107**	14%	**148,279**	15,252	11%	**148,298**	15,271	11%	**148,259**	15,232	11%	**148,266**	15,239	11%	**148,287**	15,260	11%	**150,074**	17,047	13%
Colorado River Mainstem																							
Colorado River below Windy Gap diversion	1350	**415,269**	**374,520**	**-40,749**	-10%	**359,266**	-56,003	-13%	**359,799**	-55,470	-13%	**361,227**	-54,042	-13%	**361,194**	-54,075	-13%	**360,483**	-54,786	-13%	**369,418**	-45,851	-11%
Colorado River blw Confluence with Williams Fork River	1430	**586,021**	**563,057**	**-22,964**	-4%	**544,947**	-41,074	-7%	**545,499**	-40,522	-7%	**546,889**	-39,132	-7%	**546,863**	-39,158	-7%	**546,173**	-39,848	-7%	**556,895**	-29,126	-5%
Colorado River near Kremmling gage	5020	**1,282,699**	**1,220,678**	**-62,021**	-5%	**1,194,763**	-87,936	-7%	**1,194,457**	-88,242	-7%	**1,198,737**	-83,962	-7%	**1,198,623**	-84,076	-7%	**1,197,099**	-85,600	-7%	**1,198,608**	-84,091	-7%
Muddy Creek Basin																							
Wolford Mountain Reservoir outflow	1600	**101,025**	**100,591**	**-434**	0%	**100,596**	-429	0%	**100,597**	-428	0%	**100,593**	-432	0%	**100,594**	-431	0%	**100,595**	-430	0%	**100,587**	-438	0%
Blue River Basin																							
West Portal Roberts Tunnel diversion	4240	**35,336**	**58,781**	**23,445**	66%	**60,638**	25,302	72%	**61,384**	26,048	74%	**60,315**	24,979	71%	**60,465**	25,129	71%	**60,604**	25,268	72%	**68,242**	32,906	93%
Dillon Reservoir outflow	4250	**237,024**	**213,691**	**-23,333**	-10%	**205,778**	-31,246	-13%	**204,908**	-32,116	-14%	**207,805**	-29,219	-12%	**207,715**	-29,309	-12%	**206,884**	-30,140	-13%	**197,753**	-39,271	-17%
Blue River below Boulder Creek	4500	**323,250**	**299,460**	**-23,790**	-7%	**291,548**	-31,702	-10%	**290,678**	-32,572	-10%	**293,574**	-29,676	-9%	**293,484**	-29,766	-9%	**292,654**	-30,596	-9%	**283,524**	-39,726	-12%
Green Mountain Reservoir outflow	4650	**459,181**	**429,039**	**-30,142**	-7%	**421,229**	-37,952	-8%	**420,371**	-38,810	-8%	**423,263**	-35,918	-8%	**423,176**	-36,005	-8%	**422,341**	-36,840	-8%	**413,135**	-46,046	-10%
Blue River at mouth	4800	**493,468**	**463,321**	**-30,147**	-6%	**455,511**	-37,957	-8%	**454,654**	-38,814	-8%	**457,546**	-35,922	-7%	**457,458**	-36,010	-7%	**457,623**	-35,845	-7%	**447,416**	-46,052	-9%
South Boulder Creek Basin																							
South Boulder Creek at Pinecliffe gage	57120	**106,663**	**110,216**	**3,553**	3%	**124,595**	17,932	17%	**124,279**	17,615	17%	**124,306**	17,643	17%	**124,348**	17,685	17%	**124,532**	17,869	17%	**115,028**	8,365	8%
Gross Reservoir inflow	57140	**113,810**	**128,991**	**15,181**	13%	**141,044**	27,234	24%	**140,378**	26,568	23%	**140,710**	26,900	24%	**140,751**	26,941	24%	**140,807**	26,997	24%	**132,157**	18,347	16%
Gross Reservoir outflow	57140	**108,704**	**112,084**	**3,380**	3%	**127,312**	18,608	17%	**127,195**	18,491	17%	**127,500**	18,796	17%	**127,525**	18,821	17%	**127,482**	18,778	17%	**116,252**	7,548	7%
South Boulder Creek near Eldorado Springs gage	57180	**58,300**	**56,503**	**-1,797**	-3%	**53,485**	-4,815	-8%	**53,419**	-4,881	-8%	**53,495**	-4,805	-8%	**53,483**	-4,817	-8%	**53,492**	-4,808	-8%	**55,812**	-2,488	-4%
North Fork South Platte River Basin																							
North Fork South Platte below Geneva Creek gage	50700	**98,125**	**117,629**	**19,504**	20%	**114,926**	16,801	17%	**115,306**	17,181	18%	**114,749**	16,624	17%	**114,846**	16,721	17%	**114,818**	16,693	17%	**125,352**	27,227	28%
North Fork South Platte above Pine	50750	**148,964**	**168,481**	**19,517**	13%	**165,800**	16,836	11%	**166,177**	17,213	12%	**165,608**	16,644	11%	**165,706**	16,742	11%	**165,674**	16,710	11%	**176,211**	27,247	18%
South Platte River Mainstem																							
Antero Reservoir outflow	50150	**33,710**	**33,708**	**-2**	0%	**33,707**	-3	0%	**33,708**	-2	0%	**33,708**	-2	0%	**33,707**	-3	0%	**33,707**	-3	0%	**33,708**	-2	0%
Eleven Mile Reservoir outflow	50300	**143,716**	**143,904**	**188**	0%	**143,159**	-557	0%	**143,145**	-571	0%	**143,245**	-471	0%	**143,169**	-547	0%	**143,161**	-555	0%	**144,101**	385	0%
Cheesman Reservoir outflow	50450	**301,717**	**303,206**	**1,489**	0%	**302,258**	541	0%	**302,253**	536	0%	**302,349**	632	0%	**302,271**	554	0%	**302,210**	493	0%	**303,178**	1,461	0%
South Platte River at Waterton gage	51200	**306,868**	**291,091**	**-15,777**	-5%	**287,635**	-19,233	-6%	**287,364**	-19,504	-6%	**287,775**	-19,093	-6%	**287,830**	-19,038	-6%	**287,642**	-19,226	-6%	**285,959**	-20,909	-7%
South Platte below Chatfield Resevoir	51290	**362,022**	**344,965**	**-17,057**	-5%	**341,365**	-20,657	-6%	**341,003**	-21,019	-6%	**341,456**	-20,566	-6%	**341,499**	-20,523	-6%	**341,189**	-20,833	-6%	**339,998**	-22,024	-6%
South Platte River at Denver gage	51540	**556,160**	**545,161**	**-10,999**	-2%	**543,270**	-12,890	-2%	**542,918**	-13,242	-2%	**543,382**	-12,778	-2%	**543,403**	-12,757	-2%	**543,099**	-13,061	-2%	**541,582**	-14,578	-3%
South Platte River at Henderson gage	58440	**653,510**	**638,918**	**-14,592**	-2%	**645,543**	-7,967	-1%	**645,545**	-7,965	-1%	**643,692**	-9,818	-2%	**644,442**	-9,068	-1%	**648,211**	-5,299	-1%	**643,714**	-9,796	-1%

Note: A positive difference denotes an increase in flow, whereas a negative difference denotes a decrease in flow.

Average annual wet year flows for locations on the West Slope are based on an average of the five wettest years, which include 1952, 1962, 1983, 1984, and 1986.
Average annual wet year flows for locations on the East Slope are based on an average of the five wettest years, which include 1949, 1970, 1973, 1983, and 1984.

Table H-7.4. Comparison of Average Annual Flows, Reservoir Outflows, and Diversions versus Full Use of the Existing System (AF)

Location	Node	Current Conditions	Full Use Existing System	Alternative 1a			Alternative 1c			Alternative 8a			Alternative 10a			Alternative 13a			No Action		
		Avg. Annual Flow	Avg. Annual Flow	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff
Fraser River Basin																					
Moffat Tunnel diversions	N/A	**63,799**	**66,512**	**76,797**	10,284	15%	**76,639**	10,127	15%	**75,674**	9,162	14%	**75,667**	9,155	14%	**76,328**	9,816	15%	**68,817**	2,305	3%
Below DW's Diversion from Fraser River	2120	**5,271**	**4,863**	**3,426**	-1,437	-30%	**3,440**	-1,423	-29%	**3,509**	-1,354	-28%	**3,507**	-1,356	-28%	**3,451**	-1,412	-29%	**4,500**	-363	-7%
Below DW's Diversion from Jim Creek	2160	**826**	**726**	**353**	-373	-51%	**383**	-343	-47%	**365**	-361	-50%	**364**	-362	-50%	**363**	-363	-50%	**597**	-129	-18%
Below DW's Diversions from Cub and Buck Creeks	2540	**300**	**280**	**192**	-88	-31%	**194**	-86	-31%	**195**	-85	-30%	**195**	-85	-30%	**194**	-85	-30%	**256**	-23	-8%
Below DW's Diversion from Cooper Creek	2380	**84**	**71**	**49**	-22	-31%	**49**	-22	-31%	**50**	-21	-30%	**50**	-21	-30%	**50**	-21	-30%	**65**	-6	-9%
Fraser River near Winter Park gage	2580	**8,529**	**7,971**	**6,053**	-1,918	-24%	**6,097**	-1,874	-24%	**6,150**	-1,821	-23%	**6,148**	-1,823	-23%	**6,090**	-1,881	-24%	**7,451**	-520	-7%
Vasqeuz Creek below Gumlick Tunnel	2260	**14,836**	**15,724**	**17,631**	1,907	12%	**17,599**	1,875	12%	**17,354**	1,630	10%	**17,340**	1,616	10%	**17,287**	1,563	10%	**16,139**	415	3%
Below DW's Diversion from Vasquez Creek	2280	**7,927**	**7,513**	**5,503**	-2,010	-27%	**5,558**	-1,955	-26%	**5,757**	-1,756	-23%	**5,756**	-1,757	-23%	**5,616**	-1,897	-25%	**7,098**	-415	-6%
Below DW's Diversion from Little Vasquez Creek	2340	**617**	**521**	**203**	-318	-61%	**196**	-325	-62%	**230**	-291	-56%	**231**	-290	-56%	**210**	-311	-60%	**456**	-65	-13%
Vasquez Creek gage	2370	**10,458**	**7,281**	**4,959**	-2,322	-32%	**5,007**	-2,274	-31%	**5,241**	-2,041	-28%	**5,241**	-2,040	-28%	**5,079**	-2,203	-30%	**6,801**	-480	-7%
Fraser River below Vasquez Creek	2600	**20,169**	**16,505**	**12,265**	-4,240	-26%	**12,357**	-4,148	-25%	**12,644**	-3,862	-23%	**12,642**	-3,863	-23%	**12,421**	-4,084	-25%	**15,505**	-1,000	-6%
Below DW's Diversions from Elk Creek and Tributaries	2300	**877**	**833**	**598**	-235	-28%	**596**	-237	-28%	**615**	-218	-26%	**614**	-219	-26%	**603**	-230	-28%	**786**	-47	-6%
Below DW's Diversion from St. Louis Creek	2170	**6,190**	**5,965**	**4,976**	-989	-17%	**4,985**	-980	-16%	**5,076**	-889	-15%	**5,077**	-888	-15%	**5,023**	-942	-16%	**5,757**	-208	-3%
Below DW's Diversions from St. Louis Creek Tributaries	2180	**2,683**	**2,486**	**1,445**	-1,041	-42%	**1,444**	-1,042	-42%	**1,564**	-922	-37%	**1,557**	-929	-37%	**1,491**	-995	-40%	**2,273**	-213	-9%
St Louis Creek near Fraser gage	2200	**15,648**	**15,226**	**13,196**	-2,031	-13%	**13,204**	-2,022	-13%	**13,415**	-1,812	-12%	**13,409**	-1,817	-12%	**13,288**	-1,938	-13%	**14,805**	-421	-3%
Below DW's Diversion from King Creek	2220	**118**	**109**	**62**	-47	-43%	**62**	-47	-43%	**67**	-42	-38%	**67**	-42	-39%	**64**	-46	-42%	**99**	-10	-9%
Fraser River below St. Louis Creek	2700	**37,887**	**30,898**	**24,345**	-6,553	-21%	**24,443**	-6,454	-21%	**24,964**	-5,933	-19%	**24,957**	-5,941	-19%	**24,600**	-6,297	-20%	**29,419**	-1,479	-5%
Below DW's Englewood Ranch Gravity System Diversions	2480	**7,636**	**7,572**	**7,327**	-245	-3%	**7,328**	-244	-3%	**7,367**	-205	-3%	**7,367**	-205	-3%	**7,342**	-230	-3%	**7,488**	-84	-1%
Below DW's North Fork Ranch & Dribble Creek diversions	2490	**1,479**	**1,425**	**1,081**	-344	-24%	**1,086**	-339	-24%	**1,126**	-299	-21%	**1,126**	-299	-21%	**1,100**	-325	-23%	**1,361**	-64	-5%
Below DW's Main Ranch Creek diversion	2500	**2,841**	**2,787**	**2,395**	-392	-14%	**2,402**	-385	-14%	**2,442**	-345	-12%	**2,441**	-346	-12%	**2,415**	-372	-13%	**2,712**	-75	-3%
Below DW's Diversion from Middle & South Fork of Ranch Ck	2520	**2,291**	**2,195**	**1,387**	-808	-37%	**1,401**	-794	-36%	**1,480**	-715	-33%	**1,482**	-713	-32%	**1,426**	-769	-35%	**2,036**	-159	-7%
Fraser River below Crooked Creek	2810	**85,090**	**82,406**	**74,031**	-8,375	-10%	**74,156**	-8,250	-10%	**74,875**	-7,531	-9%	**74,868**	-7,538	-9%	**74,378**	-8,028	-10%	**80,516**	-1,890	-2%
Fraser River At Granby gage	2900	**94,579**	**91,562**	**83,187**	-8,375	-9%	**83,312**	-8,250	-9%	**84,032**	-7,530	-8%	**84,025**	-7,538	-8%	**83,534**	-8,028	-9%	**89,674**	-1,888	-2%
Williams Fork Basin																					
Gumlick Tunnel diversions	N/A	**8,853**	**9,740**	**11,648**	1,907	20%	**11,615**	1,875	19%	**11,370**	1,630	17%	**11,357**	1,616	17%	**11,526**	1,786	18%	**10,155**	415	4%
Below DW's Diversion from Steelman Creek	3100	**2,084**	**1,855**	**1,398**	-457	-25%	**1,405**	-450	-24%	**1,462**	-393	-21%	**1,466**	-389	-21%	**1,425**	-430	-23%	**1,751**	-104	-6%
Below DW's Diversion from Bobtail Creek	3150	**3,609**	**3,218**	**2,364**	-854	-27%	**2,377**	-841	-26%	**2,496**	-722	-22%	**2,501**	-717	-22%	**2,421**	-797	-25%	**3,035**	-183	-6%
Below DW's Diversion from Jones Creek	3200	**1,152**	**1,024**	**794**	-230	-22%	**798**	-226	-22%	**830**	-194	-19%	**831**	-193	-19%	**809**	-215	-21%	**968**	-56	-5%
Below DW's Diversion from McQueary Creek	3250	**1,364**	**1,224**	**858**	-366	-30%	**866**	-358	-29%	**904**	-320	-26%	**907**	-317	-26%	**880**	-344	-28%	**1,151**	-73	-6%
Williams Fork River below Steelman Creek Gage	3300	**9,600**	**8,712**	**6,805**	-1,907	-22%	**6,838**	-1,875	-22%	**7,083**	-1,630	-19%	**7,096**	-1,616	-19%	**6,927**	-1,786	-20%	**8,297**	-415	-5%
Williams Fork above Darling Creek gage	3600	**21,977**	**21,089**	**19,182**	-1,907	-9%	**19,214**	-1,875	-9%	**19,460**	-1,630	-8%	**19,473**	-1,616	-8%	**19,303**	-1,786	-8%	**20,674**	-415	-2%

Table H-7.4. Comparison of Average Annual Flows, Reservoir Outflows, and Diversions versus Full Use of the Existing System (AF)

Location	Node	Current Conditions	Full Use Existing System	Alternative 1a			Alternative 1c			Alternative 8a			Alternative 10a			Alternative 13a			No Action		
		Avg. Annual Flow	Avg. Annual Flow	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff
Williams Fork near Leal gage	3750	**66,446**	**65,558**	**63,651**	-1,907	-3%	**63,683**	-1,875	-3%	**63,928**	-1,630	-2%	**63,942**	-1,616	-2%	**63,772**	-1,786	-3%	**65,143**	-415	-1%
Williams Fork Reservoir outflow	3950	**87,715**	**96,664**	**94,963**	-1,701	-2%	**95,008**	-1,656	-2%	**95,236**	-1,428	-1%	**95,258**	-1,405	-1%	**95,066**	-1,598	-2%	**96,453**	-211	0%
Colorado River Mainstem																					
Colorado River below Windy Gap diversion	1350	**155,653**	**134,685**	**126,767**	-7,918	-6%	**126,868**	-7,817	-6%	**127,628**	-7,057	-5%	**127,618**	-7,066	-5%	**127,123**	-7,561	-6%	**132,912**	-1,772	-1%
Colorado River blw Confluence with Williams Fork River	1430	**265,063**	**252,699**	**243,081**	-9,618	-4%	**243,228**	-9,471	-4%	**244,215**	-8,484	-3%	**244,228**	-8,471	-3%	**243,540**	-9,159	-4%	**250,717**	-1,982	-1%
Colorado River near Kremmling gage	5020	**698,958**	**650,723**	**636,349**	-14,373	-2%	**636,113**	-14,610	-2%	**637,978**	-12,745	-2%	**637,944**	-12,779	-2%	**637,118**	-13,605	-2%	**638,639**	-12,084	-2%
Muddy Creek Basin																					
Wolford Mountain Reservoir outflow	1600	**63,540**	**63,824**	**63,878**	54	0%	**63,878**	54	0%	**63,879**	54	0%	**63,881**	57	0%	**63,880**	56	0%	**63,930**	106	0%
Blue River Basin																					
West Portal Roberts Tunnel diversion	4240	**69,676**	**96,939**	**101,775**	4,836	5%	**102,191**	5,252	5%	**101,281**	4,342	4%	**101,321**	4,382	5%	**101,461**	4,522	5%	**107,254**	10,315	11%
Dillon Reservoir outflow	4250	**124,392**	**96,668**	**91,881**	-4,787	-5%	**91,485**	-5,183	-5%	**92,374**	-4,294	-4%	**92,329**	-4,339	-4%	**92,186**	-4,482	-5%	**86,485**	-10,183	-11%
Blue River below Boulder Creek	4500	**184,296**	**156,130**	**151,343**	-4,787	-3%	**150,947**	-5,183	-3%	**151,836**	-4,294	-3%	**151,791**	-4,339	-3%	**151,648**	-4,481	-3%	**145,947**	-10,183	-7%
Green Mountain Reservoir outflow	4650	**284,276**	**256,192**	**251,382**	-4,810	-2%	**251,000**	-5,192	-2%	**251,873**	-4,318	-2%	**251,825**	-4,367	-2%	**251,689**	-4,503	-2%	**245,982**	-10,210	-4%
Blue River at mouth	4800	**306,163**	**278,089**	**273,279**	-4,810	-2%	**272,898**	-5,191	-2%	**273,775**	-4,314	-2%	**273,724**	-4,365	-2%	**273,588**	-4,501	-2%	**267,882**	-10,207	-4%
South Boulder Creek Basin																					
South Boulder Creek at Pinecliffe gage	57120	**106,043**	**108,752**	**119,036**	10,284	9%	**118,878**	10,127	9%	**117,913**	9,162	8%	**117,907**	9,155	8%	**118,567**	9,815	9%	**111,056**	2,305	2%
Gross Reservoir inflow	57140	**112,902**	**115,652**	**126,090**	10,438	9%	**125,930**	10,278	9%	**124,950**	9,298	8%	**124,943**	9,292	8%	**125,614**	9,962	9%	**117,991**	2,339	2%
Gross Reservoir outflow	57140	**111,454**	**114,079**	**123,757**	9,678	8%	**123,815**	9,736	9%	**122,776**	8,697	8%	**122,773**	8,694	8%	**123,363**	9,284	8%	**116,378**	2,299	2%
South Boulder Creek near Eldorado Springs gage	57180	**46,680**	**46,330**	**45,345**	-985	-2%	**45,310**	-1,020	-2%	**45,330**	-1,000	-2%	**45,332**	-998	-2%	**45,337**	-993	-2%	**46,091**	-239	-1%
North Fork South Platte River Basin																					
North Fork South Platte below Geneva Creek gage	50700	**117,494**	**143,778**	**148,480**	4,702	3%	**148,878**	5,100	4%	**148,005**	4,226	3%	**148,043**	4,265	3%	**148,180**	4,402	3%	**153,685**	9,907	7%
North Fork South Platte above Pine	50750	**141,915**	**168,195**	**172,897**	4,701	3%	**173,295**	5,099	3%	**172,421**	4,226	3%	**172,460**	4,265	3%	**172,596**	4,401	3%	**178,102**	9,906	6%
South Platte River Mainstem																					
Antero Reservoir outflow	50150	**21,674**	**21,723**	**21,734**	11	0%	**21,735**	12	0%	**21,734**	11	0%	**21,733**	10	0%	**21,732**	9	0%	**21,787**	64	0%
Eleven Mile Canyon Reservoir outflow	50300	**104,564**	**105,228**	**105,247**	19	0%	**105,268**	40	0%	**105,264**	35	0%	**105,233**	4	0%	**105,161**	-67	0%	**105,583**	355	0%
Cheesman Reservoir outflow	50450	**180,255**	**180,900**	**180,903**	3	0%	**180,925**	25	0%	**180,918**	18	0%	**180,888**	-12	0%	**180,816**	-85	0%	**181,227**	327	0%
South Platte River at Waterton gage	51200	**112,256**	**100,722**	**98,042**	-2,680	-3%	**97,889**	-2,833	-3%	**98,030**	-2,693	-3%	**98,027**	-2,695	-3%	**97,941**	-2,781	-3%	**96,918**	-3,804	-4%
South Platte below Chatfield Resevoir	51290	**122,191**	**109,221**	**106,854**	-2,367	-2%	**106,705**	-2,516	-2%	**106,803**	-2,418	-2%	**106,802**	-2,419	-2%	**106,712**	-2,509	-2%	**105,046**	-4,175	-4%
South Platte River at Denver gage	51540	**236,313**	**229,265**	**228,420**	-845	0%	**228,284**	-982	0%	**228,351**	-914	0%	**228,358**	-908	0%	**228,270**	-996	0%	**226,008**	-3,257	-1%
South Platte River at Henderson gage	58440	**285,978**	**279,342**	**283,614**	4,272	2%	**283,537**	4,195	2%	**282,036**	2,693	1%	**282,662**	3,320	1%	**285,029**	5,686	2%	**281,256**	1,914	1%

Note: A positive difference denotes an increase in flows, whereas a negative difference denotes a decrease in flows.

Table H-7.5. Comparison of Average Annual Dry Year Flows, Reservoir Outflows, and Diversions versus Full Use of the Existing System (AF)

Location	Node	Current Conditions	Full Use Existing System	Alternative 1a			Alternative 1c			Alternative 8a			Alternative 10a			Alternative 13a			No Action		
		Avg. Annual Flow	Avg. Annual Flow	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff
Fraser River Basin																					
Moffat Tunnel diversions	N/A	52,739	54,698	54,698	0	0%	54,698	0	0%	54,698	0	0%	54,698	0	0%	54,698	0	0%	54,698	0	0%
Below DW's Diversion from Fraser River	2120	2,429	2,159	2,159	0	0%	2,159	0	0%	2,159	0	0%	2,159	0	0%	2,159	0	0%	2,159	0	0%
Below DW's Diversion from Jim Creek	2160	32	33	33	0	0%	33	0	0%	33	0	0%	33	0	0%	33	0	0%	33	0	0%
Below DW's Diversions from Cub and Buck Creeks	2540	137	136	137	1	1%	137	1	1%	137	1	1%	137	1	1%	137	1	1%	137	1	1%
Below DW's Diversion from Cooper Creek	2380	51	47	47	0	0%	47	0	0%	47	0	0%	47	0	0%	47	0	0%	47	0	0%
Fraser River near Winter Park gage	2580	4,193	3,903	3,903	0	0%	3,903	0	0%	3,903	0	0%	3,903	0	0%	3,903	0	0%	3,903	0	0%
Vasqeuz Creek below Gumlick Tunnel	2260	12,643	13,924	13,924	0	0%	13,924	0	0%	13,924	0	0%	13,924	0	0%	13,924	0	0%	13,924	0	0%
Below DW's Diversion from Vasquez Creek	2280	3,101	2,946	2,946	0	0%	2,946	0	0%	2,946	0	0%	2,946	0	0%	2,946	0	0%	2,946	0	0%
Below DW's Diversion from Little Vasquez Creek	2340	34	36	36	0	0%	36	0	0%	36	0	0%	36	0	0%	36	0	0%	36	0	0%
Vasquez Creek gage	2370	4,220	1,407	1,407	0	0%	1,407	0	0%	1,407	0	0%	1,407	0	0%	1,407	0	0%	1,407	0	0%
Fraser River below Vasquez Creek	2600	8,831	5,797	5,797	0	0%	5,797	0	0%	5,797	0	0%	5,797	0	0%	5,797	0	0%	5,797	0	0%
Below DW's Diversions from Elk Creek and Tributaries	2300	336	336	336	0	0%	336	0	0%	336	0	0%	336	0	0%	336	0	0%	336	0	0%
Below DW's Diversion from St. Louis Creek	2170	3,043	2,806	2,806	0	0%	2,806	0	0%	2,806	0	0%	2,806	0	0%	2,806	0	0%	2,806	0	0%
Below DW's Diversions from St. Louis Creek Tributaries	2180	0	0	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%
St Louis Creek near Fraser gage	2200	7,880	7,645	7,645	0	0%	7,645	0	0%	7,645	0	0%	7,645	0	0%	7,645	0	0%	7,645	0	0%
Below DW's Diversion from King Creek	2220	0	0	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%
Fraser River below St. Louis Creek	2700	14,606	8,525	8,525	0	0%	8,525	0	0%	8,525	0	0%	8,525	0	0%	8,525	0	0%	8,525	0	0%
Below DW's Englewood Ranch Gravity System Diversions	2480	3,529	3,532	3,532	0	0%	3,532	0	0%	3,532	0	0%	3,532	0	0%	3,532	0	0%	3,532	0	0%
Below DW's North Fork Ranch & Dribble Creek diversions	2490	101	118	118	0	0%	118	0	0%	118	0	0%	118	0	0%	118	0	0%	118	0	0%
Below DW's Main Ranch Creek diversion	2500	1,249	1,170	1,170	0	0%	1,170	0	0%	1,170	0	0%	1,170	0	0%	1,170	0	0%	1,170	0	0%
Below DW's Diversion from Middle & South Fork of Ranch Ck	2520	12	12	12	0	0%	12	0	0%	12	0	0%	12	0	0%	12	0	0%	12	0	0%
Fraser River below Crooked Creek	2810	36,516	34,970	34,970	0	0%	34,970	0	0%	34,970	0	0%	34,970	0	0%	34,970	0	0%	34,970	0	0%
Fraser River At Granby gage	2900	39,164	37,291	37,291	0	0%	37,291	0	0%	37,291	0	0%	37,291	0	0%	37,291	0	0%	37,291	0	0%
Williams Fork Basin																					
Gumlick Tunnel diversions	N/A	9,198	10,479	10,479	0	0%	10,479	0	0%	10,479	0	0%	10,479	0	0%	10,479	0	0%	10,479	0	0%
Below DW's Diversion from Steelman Creek	3100	394	69	69	0	0%	69	0	0%	69	0	0%	69	0	0%	69	0	0%	69	0	0%
Below DW's Diversion from Bobtail Creek	3150	659	67	67	0	0%	67	0	0%	67	0	0%	67	0	0%	67	0	0%	67	0	0%
Below DW's Diversion from Jones Creek	3200	234	51	51	0	0%	51	0	0%	51	0	0%	51	0	0%	51	0	0%	51	0	0%
Below DW's Diversion from McQueary Creek	3250	218	38	38	0	0%	38	0	0%	38	0	0%	38	0	0%	38	0	0%	38	0	0%
Williams Fork River below Steelman Creek Gage	3300	2,183	902	902	0	0%	902	0	0%	902	0	0%	902	0	0%	902	0	0%	902	0	0%
Williams Fork above Darling Creek gage	3600	9,875	8,594	8,594	0	0%	8,594	0	0%	8,594	0	0%	8,594	0	0%	8,594	0	0%	8,594	0	0%

Table H-7.5. Comparison of Average Annual Dry Year Flows, Reservoir Outflows, and Diversions versus Full Use of the Existing System (AF)

Location	Node	Current Conditions	Full Use Existing System	Alternative 1a			Alternative 1c			Alternative 8a			Alternative 10a			Alternative 13a			No Action		
		Avg. Annual Flow	Avg. Annual Flow	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff
Williams Fork near Leal gage	3750	**37,448**	**36,166**	**36,166**	0	0%	**36,166**	0	0%	**36,166**	0	0%	**36,166**	0	0%	**36,166**	0	0%	**36,166**	0	0%
Williams Fork Reservoir outflow	3950	**70,389**	**79,520**	**79,469**	-51	0%	**79,519**	-1	0%	**79,469**	-51	0%	**79,469**	-51	0%	**79,469**	-51	0%	**79,593**	73	0%
Colorado River Mainstem																					
Colorado River below Windy Gap diversion	1350	**69,285**	**69,313**	**69,313**	0	0%	**69,313**	0	0%	**69,313**	0	0%	**69,313**	0	0%	**69,313**	0	0%	**69,313**	0	0%
Colorado River blw Confluence with Williams Fork River	1430	**148,222**	**157,041**	**156,997**	-44	0%	**157,042**	1	0%	**156,997**	-44	0%	**156,997**	-44	0%	**156,997**	-44	0%	**157,121**	80	0%
Colorado River near Kremmling gage	5020	**428,773**	**423,977**	**423,855**	-122	0%	**423,788**	-189	0%	**423,973**	-4	0%	**423,983**	6	0%	**423,891**	-86	0%	**423,901**	-76	0%
Muddy Creek Basin																					
Wolford Mountain Reservoir outflow	1600	**43,941**	**46,842**	**46,843**	1	0%	**46,842**	0	0%	**46,842**	0	0%	**46,842**	0	0%	**46,843**	1	0%	**46,842**	0	0%
Blue River Basin																					
West Portal Roberts Tunnel diversion	4240	**125,491**	**149,236**	**148,599**	-637	0%	**148,278**	-958	-1%	**148,625**	-611	0%	**148,512**	-724	0%	**148,500**	-736	0%	**154,173**	4,937	3%
Dillon Reservoir outflow	4250	**50,138**	**41,082**	**41,161**	79	0%	**41,111**	29	0%	**41,161**	79	0%	**41,161**	79	0%	**41,161**	79	0%	**41,036**	-46	0%
Blue River below Boulder Creek	4500	**89,901**	**80,405**	**80,484**	79	0%	**80,434**	29	0%	**80,484**	79	0%	**80,484**	79	0%	**80,484**	79	0%	**80,359**	-46	0%
Green Mountain Reservoir outflow	4650	**190,714**	**181,160**	**181,083**	-77	0%	**180,968**	-192	0%	**181,201**	41	0%	**181,210**	50	0%	**181,119**	-41	0%	**181,005**	-155	0%
Blue River at mouth	4800	**203,588**	**194,059**	**193,980**	-79	0%	**193,866**	-193	0%	**194,098**	39	0%	**194,107**	48	0%	**194,016**	-43	0%	**193,901**	-158	0%
South Boulder Creek Basin																					
South Boulder Creek at Pinecliffe gage	57120	**77,075**	**78,486**	**78,549**	63	0%	**78,549**	63	0%	**78,549**	63	0%	**78,549**	63	0%	**78,549**	63	0%	**78,549**	63	0%
Gross Reservoir inflow	57140	**81,946**	**82,512**	**82,513**	1	0%	**82,513**	1	0%	**82,513**	1	0%	**82,513**	1	0%	**82,513**	1	0%	**82,513**	1	0%
Gross Reservoir outflow	57140	**83,607**	**87,100**	**101,089**	13,989	16%	**100,635**	13,535	16%	**99,469**	12,369	14%	**99,486**	12,386	14%	**99,634**	12,534	14%	**88,529**	1,429	2%
South Boulder Creek near Eldorado Springs gage	57180	**29,077**	**29,122**	**29,268**	146	1%	**29,263**	141	0%	**29,253**	131	0%	**29,254**	132	0%	**29,255**	133	0%	**29,137**	15	0%
North Fork South Platte River Basin																					
North Fork South Platte below Geneva Creek gage	50700	**151,435**	**184,592**	**187,368**	2,776	2%	**187,097**	2,505	1%	**187,411**	2,819	2%	**187,306**	2,714	1%	**187,377**	2,785	2%	**190,225**	5,633	3%
North Fork South Platte above Pine	50750	**161,354**	**194,676**	**197,493**	2,817	1%	**197,224**	2,548	1%	**197,535**	2,859	1%	**197,431**	2,755	1%	**197,506**	2,830	1%	**200,350**	5,674	3%
South Platte River Mainstem																					
Antero Reservoir outflow	50150	**8,835**	**9,175**	**9,443**	268	3%	**9,431**	256	3%	**9,396**	221	2%	**9,396**	221	2%	**9,396**	221	2%	**9,132**	-43	0%
Eleven Mile Canyon Reservoir outflow	50300	**91,768**	**92,821**	**93,392**	571	1%	**93,450**	629	1%	**93,351**	530	1%	**93,233**	412	0%	**93,198**	377	0%	**94,873**	2,052	2%
Cheesman Reservoir outflow	50450	**140,946**	**147,709**	**150,281**	2,572	2%	**150,518**	2,809	2%	**150,329**	2,620	2%	**150,403**	2,694	2%	**150,281**	2,572	2%	**157,750**	10,041	7%
South Platte River at Waterton gage	51200	**31,508**	**29,821**	**30,473**	652	2%	**30,464**	643	2%	**30,491**	670	2%	**30,471**	650	2%	**30,497**	676	2%	**29,502**	-319	-1%
South Platte below Chatfield Resevoir	51290	**22,413**	**20,128**	**20,850**	722	4%	**20,845**	717	4%	**20,828**	700	3%	**20,789**	661	3%	**20,848**	720	4%	**18,713**	-1,415	-7%
South Platte River at Denver gage	51540	**90,565**	**95,825**	**97,869**	2,044	2%	**97,888**	2,063	2%	**97,807**	1,982	2%	**97,788**	1,963	2%	**97,857**	2,032	2%	**95,466**	-359	0%
South Platte River at Henderson gage	58440	**129,727**	**132,651**	**136,366**	3,715	3%	**136,432**	3,781	3%	**134,486**	1,835	1%	**135,333**	2,682	2%	**137,369**	4,718	4%	**135,718**	3,067	2%

Note: A positive difference denotes an increase in flows, whereas a negative difference denotes a decrease in flows.
Average annual dry year flows for locations on the West Slope are based on an average of the five driest years, which include 1954, 1955, 1963, 1977, and 1981.
Average annual dry year flows for locations on the East Slope are based on an average of the five driest years, which include 1950, 1954, 1963, 1977, and 1981.

Table H-7.6. Comparison of Average Annual Wet Year Flows, Reservoir Outflows, and Diversions versus Full Use of the Existing System (AF)

Location	Node	Current Conditions	Full Use Existing System	Alternative 1a			Alternative 1c			Alternative 8a			Alternative 10a			Alternative 13a			No Action		
		Avg. Annual Flow	Avg. Annual Flow	Avg. Annual Flow	Diff.	Percent Diff		Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff
Fraser River Basin																					
Moffat Tunnel diversions	N/A	**57,343**	**62,646**	**74,485**	11,839	19%	**73,824**	11,178	18%	**74,155**	11,509	18%	**74,196**	11,550	18%	**74,249**	11,603	19%	**65,742**	3,096	5%
Below DW's Diversion from Fraser River	2120	**10,400**	**9,615**	**7,486**	-2,129	-22%	**7,564**	-2,051	-21%	**7,475**	-2,140	-22%	**7,480**	-2,135	-22%	**7,468**	-2,147	-22%	**9,122**	-493	-5%
Below DW's Diversion from Jim Creek	2160	**2,639**	**2,375**	**1,658**	-717	-30%	**1,725**	-650	-27%	**1,681**	-694	-29%	**1,680**	-695	-29%	**1,687**	-688	-29%	**2,111**	-264	-11%
Below DW's Diversions from Cub and Buck Creeks	2540	**665**	**610**	**447**	-163	-27%	**448**	-162	-27%	**452**	-158	-26%	**452**	-158	-26%	**452**	-158	-26%	**566**	-44	-7%
Below DW's Diversion from Cooper Creek	2380	**106**	**81**	**51**	-30	-37%	**51**	-30	-37%	**52**	-29	-36%	**52**	-29	-36%	**52**	-29	-36%	**70**	-10	-13%
Fraser River near Winter Park gage	2580	**16,488**	**15,341**	**12,304**	-3,037	-20%	**12,448**	-2,893	-19%	**12,321**	-3,020	-20%	**12,324**	-3,017	-20%	**12,319**	-3,022	-20%	**14,531**	-810	-5%
Vasqeuz Creek below Gumlick Tunnel	2260	**15,096**	**15,871**	**17,294**	1,423	9%	**17,263**	1,392	9%	**17,318**	1,447	9%	**17,313**	1,442	9%	**17,510**	1,639	10%	**16,282**	411	3%
Below DW's Diversion from Vasquez Creek	2280	**16,024**	**14,982**	**12,549**	-2,433	-16%	**12,771**	-2,211	-15%	**12,595**	-2,387	-16%	**12,579**	-2,403	-16%	**12,572**	-2,410	-16%	**14,473**	-509	-3%
Below DW's Diversion from Little Vasquez Creek	2340	**1,025**	**761**	**473**	-288	-38%	**460**	-301	-40%	**452**	-309	-41%	**467**	-294	-39%	**458**	-303	-40%	**678**	-83	-11%
Vasquez Creek gage	2370	**19,827**	**15,893**	**13,172**	-2,721	-17%	**13,382**	-2,511	-16%	**13,197**	-2,696	-17%	**13,196**	-2,697	-17%	**13,180**	-2,713	-17%	**15,301**	-592	-4%
Fraser River below Vasquez Creek	2600	**38,687**	**33,681**	**27,922**	-5,759	-17%	**28,276**	-5,405	-16%	**27,964**	-5,717	-17%	**27,967**	-5,714	-17%	**27,946**	-5,735	-17%	**32,278**	-1,403	-4%
Below DW's Diversions from Elk Creek and Tributaries	2300	**1,817**	**1,664**	**1,403**	-261	-16%	**1,409**	-255	-15%	**1,419**	-245	-15%	**1,415**	-249	-15%	**1,416**	-248	-15%	**1,614**	-50	-3%
Below DW's Diversion from St. Louis Creek	2170	**11,765**	**11,265**	**10,141**	-1,124	-10%	**10,213**	-1,052	-9%	**10,227**	-1,038	-9%	**10,232**	-1,033	-9%	**10,212**	-1,053	-9%	**10,961**	-304	-3%
Below DW's Diversions from St. Louis Creek Tributaries	2180	**7,459**	**6,932**	**5,685**	-1,247	-18%	**5,774**	-1,158	-17%	**5,819**	-1,113	-16%	**5,772**	-1,160	-17%	**5,727**	-1,205	-17%	**6,562**	-370	-5%
St Louis Creek near Fraser gage	2200	**28,457**	**27,429**	**25,058**	-2,371	-9%	**25,219**	-2,210	-8%	**25,279**	-2,150	-8%	**25,236**	-2,193	-8%	**25,170**	-2,259	-8%	**26,755**	-674	-2%
Below DW's Diversion from King Creek	2220	**336**	**305**	**252**	-53	-17%	**254**	-51	-17%	**256**	-49	-16%	**255**	-50	-16%	**252**	-53	-17%	**290**	-15	-5%
Fraser River below St. Louis Creek	2700	**75,405**	**66,300**	**57,855**	-8,445	-13%	**58,378**	-7,922	-12%	**58,137**	-8,163	-12%	**58,093**	-8,207	-12%	**58,004**	-8,296	-13%	**64,157**	-2,143	-3%
Below DW's Englewood Ranch Gravity System Diversions	2480	**12,343**	**12,109**	**11,771**	-338	-3%	**11,779**	-330	-3%	**11,771**	-338	-3%	**11,770**	-339	-3%	**11,768**	-341	-3%	**12,017**	-92	-1%
Below DW's North Fork Ranch & Dribble Creek diversions	2490	**3,272**	**3,133**	**2,799**	-334	-11%	**2,796**	-337	-11%	**2,798**	-335	-11%	**2,795**	-338	-11%	**2,807**	-326	-10%	**3,061**	-72	-2%
Below DW's Main Ranch Creek diversion	2500	**5,086**	**4,972**	**4,605**	-367	-7%	**4,619**	-353	-7%	**4,622**	-350	-7%	**4,612**	-360	-7%	**4,620**	-352	-7%	**4,908**	-64	-1%
Below DW's Diversion from Middle & South Fork of Ranch Ck	2520	**5,865**	**5,607**	**4,784**	-823	-15%	**4,825**	-782	-14%	**4,824**	-783	-14%	**4,833**	-774	-14%	**4,843**	-764	-14%	**5,437**	-170	-3%
Fraser River below Crooked Creek	2810	**159,392**	**154,093**	**143,693**	-10,400	-7%	**144,275**	-9,818	-6%	**144,030**	-10,063	-7%	**143,980**	-10,113	-7%	**143,919**	-10,174	-7%	**151,458**	-2,635	-2%
Fraser River At Granby gage	2900	**179,398**	**173,768**	**163,367**	-10,401	-6%	**163,949**	-9,819	-6%	**163,705**	-10,063	-6%	**163,655**	-10,113	-6%	**163,594**	-10,174	-6%	**171,133**	-2,635	-2%
Williams Fork Basin																					
Gumlick Tunnel diversions	N/A	**6,474**	**7,250**	**8,673**	1,423	20%	**8,642**	1,392	19%	**8,696**	1,446	20%	**8,691**	1,441	20%	**8,665**	1,415	20%	**7,661**	411	6%
Below DW's Diversion from Steelman Creek	3100	**4,179**	**3,990**	**3,676**	-314	-8%	**3,691**	-299	-7%	**3,672**	-318	-8%	**3,672**	-318	-8%	**3,669**	-321	-8%	**3,897**	-93	-2%
Below DW's Diversion from Bobtail Creek	3150	**7,698**	**7,349**	**6,671**	-678	-9%	**6,690**	-659	-9%	**6,660**	-689	-9%	**6,664**	-685	-9%	**6,679**	-670	-9%	**7,133**	-216	-3%
Below DW's Diversion from Jones Creek	3200	**2,243**	**2,144**	**1,987**	-157	-7%	**1,989**	-155	-7%	**1,985**	-159	-7%	**1,985**	-159	-7%	**1,982**	-162	-8%	**2,098**	-46	-2%
Below DW's Diversion from McQueary Creek	3250	**2,973**	**2,835**	**2,561**	-274	-10%	**2,555**	-280	-10%	**2,553**	-282	-10%	**2,554**	-281	-10%	**2,572**	-263	-9%	**2,778**	-57	-2%
Williams Fork River below Steelman Creek Gage	3300	**19,181**	**18,406**	**16,983**	-1,423	-8%	**17,014**	-1,392	-8%	**16,959**	-1,447	-8%	**16,965**	-1,441	-8%	**16,991**	-1,415	-8%	**17,995**	-411	-2%
Williams Fork above Darling Creek gage	3600	**38,420**	**37,645**	**36,222**	-1,423	-4%	**36,252**	-1,393	-4%	**36,198**	-1,447	-4%	**36,203**	-1,442	-4%	**36,229**	-1,416	-4%	**37,234**	-411	-1%
Williams Fork near Leal gage	3750	**103,482**	**102,706**	**101,283**	-1,423	-1%	**101,314**	-1,392	-1%	**101,260**	-1,446	-1%	**101,265**	-1,441	-1%	**101,291**	-1,415	-1%	**102,295**	-411	0%
Williams Fork Reservoir outflow	3950	**133,027**	**151,134**	**148,279**	-2,855	-2%	**148,298**	-2,836	-2%	**148,259**	-2,875	-2%	**148,266**	-2,868	-2%	**148,287**	-2,847	-2%	**150,074**	-1,060	-1%

Table H-7.6. Comparison of Average Annual Wet Year Flows, Reservoir Outflows, and Diversions versus Full Use of the Existing System (AF)

Location	Node	Current Conditions	Full Use Existing System	Alternative 1a			Alternative 1c			Alternative 8a			Alternative 10a			Alternative 13a			No Action		
		Avg. Annual Flow	Avg. Annual Flow	Avg. Annual Flow	Diff.	Percent Diff		Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff	Avg. Annual Flow	Diff.	Percent Diff
Colorado River Mainstem																					
Colorado River below Windy Gap diversion	1350	**415,269**	**374,520**	**359,266**	-15,254	-4%	**359,799**	-14,721	-4%	**361,227**	-13,293	-4%	**361,194**	-13,326	-4%	**360,483**	-14,037	-4%	**369,418**	-5,102	-1%
Colorado River blw Confluence with Williams Fork River	1430	**586,021**	**563,057**	**544,947**	-18,110	-3%	**545,499**	-17,558	-3%	**546,889**	-16,168	-3%	**546,863**	-16,194	-3%	**546,173**	-16,884	-3%	**556,895**	-6,162	-1%
Colorado River near Kremmling gage	5020	**1,282,699**	**1,220,678**	**1,194,763**	-25,915	-2%	**1,194,457**	-26,221	-2%	**1,198,737**	-21,941	-2%	**1,198,623**	-22,055	-2%	**1,197,099**	-23,579	-2%	**1,198,608**	-22,070	-2%
Muddy Creek Basin																					
Wolford Mountain Reservoir outflow	1600	**101,025**	**100,591**	**100,596**	5	0%	**100,597**	6	0%	**100,593**	2	0%	**100,594**	3	0%	**100,595**	4	0%	**100,587**	-4	0%
Blue River Basin																					
West Portal Roberts Tunnel diversion	4240	**35,336**	**58,781**	**60,638**	1,857	3%	**61,384**	2,603	4%	**60,315**	1,534	3%	**60,465**	1,684	3%	**60,604**	1,823	3%	**68,242**	9,461	16%
Dillon Reservoir outflow	4250	**237,024**	**213,691**	**205,778**	-7,913	-4%	**204,908**	-8,783	-4%	**207,805**	-5,886	-3%	**207,715**	-5,976	-3%	**206,884**	-6,807	-3%	**197,753**	-15,938	-7%
Blue River below Boulder Creek	4500	**323,250**	**299,460**	**291,548**	-7,912	-3%	**290,678**	-8,782	-3%	**293,574**	-5,886	-2%	**293,484**	-5,976	-2%	**292,654**	-6,806	-2%	**283,524**	-15,936	-5%
Green Mountain Reservoir outflow	4650	**459,181**	**429,039**	**421,229**	-7,810	-2%	**420,371**	-8,668	-2%	**423,263**	-5,776	-1%	**423,176**	-5,863	-1%	**422,341**	-6,698	-2%	**413,135**	-15,904	-4%
Blue River at mouth	4800	**493,468**	**463,321**	**455,511**	-7,810	-2%	**454,654**	-8,667	-2%	**457,546**	-5,775	-1%	**457,458**	-5,863	-1%	**457,623**	-5,698	-1%	**447,416**	-15,905	-3%
South Boulder Creek Basin																					
South Boulder Creek at Pinecliffe gage	57120	**106,663**	**110,216**	**124,595**	14,380	13%	**124,279**	14,063	13%	**124,306**	14,091	13%	**124,348**	14,132	13%	**124,532**	14,316	13%	**115,028**	4,813	4%
Gross Reservoir inflow	57140	**113,810**	**128,991**	**141,044**	12,053	9%	**140,378**	11,387	9%	**140,710**	11,719	9%	**140,751**	11,760	9%	**140,807**	11,816	9%	**132,157**	3,166	2%
Gross Reservoir outflow	57140	**108,704**	**112,084**	**127,312**	15,228	14%	**127,195**	15,111	13%	**127,500**	15,416	14%	**127,525**	15,441	14%	**127,482**	15,398	14%	**116,252**	4,168	4%
South Boulder Creek near Eldorado Springs gage	57180	**58,300**	**56,503**	**53,485**	-3,018	-5%	**53,419**	-3,084	-5%	**53,495**	-3,008	-5%	**53,483**	-3,020	-5%	**53,492**	-3,011	-5%	**55,812**	-691	-1%
North Fork South Platte River Basin																					
North Fork South Platte below Geneva Creek gage	50700	**98,125**	**117,629**	**114,926**	-2,703	-2%	**115,306**	-2,323	-2%	**114,749**	-2,880	-2%	**114,846**	-2,783	-2%	**114,818**	-2,811	-2%	**125,352**	7,723	7%
North Fork South Platte above Pine	50750	**148,964**	**168,481**	**165,800**	-2,681	-2%	**166,177**	-2,304	-1%	**165,608**	-2,873	-2%	**165,706**	-2,775	-2%	**165,674**	-2,807	-2%	**176,211**	7,730	5%
South Platte River Mainstem																					
Antero Reservoir outflow	50150	**33,710**	**33,708**	**33,707**	-1	0%	**33,708**	0	0%	**33,708**	0	0%	**33,707**	-1	0%	**33,707**	-1	0%	**33,708**	0	0%
Eleven Mile Canyon Reservoir outflow	50300	**143,716**	**143,904**	**143,159**	-745	-1%	**143,145**	-759	-1%	**143,245**	-659	0%	**143,169**	-735	-1%	**143,161**	-743	-1%	**144,101**	197	0%
Cheesman Reservoir outflow	50450	**301,717**	**303,206**	**302,258**	-948	0%	**302,253**	-953	0%	**302,349**	-857	0%	**302,271**	-935	0%	**302,210**	-996	0%	**303,178**	-28	0%
South Platte River at Waterton gage	51200	**306,868**	**291,091**	**287,635**	-3,456	-1%	**287,364**	-3,727	-1%	**287,775**	-3,316	-1%	**287,830**	-3,261	-1%	**287,642**	-3,449	-1%	**285,959**	-5,132	-2%
South Platte below Chatfield Resevoir	51290	**362,022**	**344,965**	**341,365**	-3,600	-1%	**341,003**	-3,962	-1%	**341,456**	-3,509	-1%	**341,499**	-3,466	-1%	**341,189**	-3,776	-1%	**339,998**	-4,967	-1%
South Platte River at Denver gage	51540	**556,160**	**545,161**	**543,270**	-1,891	0%	**542,918**	-2,243	0%	**543,382**	-1,779	0%	**543,403**	-1,758	0%	**543,099**	-2,062	0%	**541,582**	-3,579	-1%
South Platte River at Henderson gage	58440	**653,510**	**638,918**	**645,543**	6,625	1%	**645,545**	6,627	1%	**643,692**	4,774	1%	**644,442**	5,524	1%	**648,211**	9,293	1%	**643,714**	4,796	1%

Note: A positive difference denotes an increase in flows, whereas a negative difference denotes a decrease in flows.

Average annual wet year flows for locations on the West Slope are based on an average of the five wettest years, which include 1952, 1962, 1983, 1984, and 1986.

Average annual wet year flows for locations on the East Slope are based on an average of the five wettest years, which include 1949, 1970, 1973, 1983, and 1984.

Appendix H-8
Average Annual Net Evaporation Comparisons

- Table H-8.1 Comparison of Average Annual Net Evaporation at Various Reservoirs (AF)

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Table H-8.1. Comparison of Average Annual Net Evaporation at Various Reservoirs (AF)

Reservoir	Current Conditions	Full Use Existing System	Alt. 1a	Alt. 1c	Alt. 8a	Alt. 10a	Alt. 13a	No Action
Williams Fork	3,227	3,355	3,331	3,329	3,338	3,338	3,340	3,353
Dillon	5,847	5,494	5,368	5,360	5,380	5,379	5,379	5,296
Wolford	2,701	2,574	2,570	2,570	2,570	2,570	2,570	2,568
Gross	452	477	991	769	858	858	912	463
Leyden	-	-	-	623	-	-	-	-
Antero	3,671	3,625	3,602	3,601	3,602	3,603	3,604	3,545
Eleven Mile Canyon	5,950	5,838	5,856	5,854	5,857	5,856	5,857	5,753
Cheesman	1,081	1,074	1,058	1,058	1,057	1,058	1,058	1,053
Potable reuse gravel pit	-	-	-	-	886	-	-	-
Agricultural water gravel pit	-	-	-	-	-	-	656	-

Appendix H-8
Average Annual Net Evaporation Comparisons

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Appendix H-9
Flow Duration and Effective Discharge Curves

Flow Duration Curves

- Figure H-9.1 FR-1: Fraser River near Winter Park Gage
- Figure H-9.2 FR-2: Fraser River near Tabernash
- Figure H-9.3 FR-3: St. Louis Creek
- Figure H-9.4 FR-4: Ranch Creek
- Figure H-9.5 FR-5: Fraser River Downstream of Denver Water's Diversion
- Figure H-9.6 FR-6: Jim Creek
- Figure H-9.7 FR-7: Vasquez Creek
- Figure H-9.8 WF-1: Williams Fork near Sugarloaf Campground
- Figure H-9.9 WF-2: Williams Fork below Steelman Creek
- Figure H-9.10 CR-1: Colorado River above Parshall
- Figure H-9.11 CR-2: Colorado River at Kemp Breeze State Wildlife Area
- Figure H-9.12 BR-1: Blue River below Boulder Creek
- Figure H-9.13 NF-1: North Fork South Platte near Shawnee
- Figure H-9.14 NF-2: North Fork South Platte near Pine
- Figure H-9.15 SBC-1: South Boulder Creek above Rollinsville
- Figure H-9.16 SBC-3: South Boulder Creek below Gross Reservoir

Table H-9.1 Effective Discharge Results

Effective Discharge Curves

- Figure H-9.17 Current Conditions – FR-1: Fraser River near Winter Park Gage
- Figure H-9.18 Full Use – FR-1: Fraser River near Winter Park Gage
- Figure H-9.19 No Action – FR-1: Fraser River near Winter Park Gage
- Figure H-9.20 Alternative 1A – FR-1: Fraser River near Winter Park Gage
- Figure H-9.21 Alternative 8A – FR-1: Fraser River near Winter Park Gage
- Figure H-9.22 Current Conditions – FR-2: Fraser River near Tabernash
- Figure H-9.23 Full Use – FR-2: Fraser River near Tabernash
- Figure H-9.24 No Action – FR-2: Fraser River near Tabernash
- Figure H-9.25 Alternative 1A – FR-2: Fraser River near Tabernash
- Figure H-9.26 Alternative 8A – FR-2: Fraser River near Tabernash

Appendix H-9
Flow Duration and Effective Discharge Curves

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Appendix H-9
Flow Duration and Effective Discharge Curves

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- Figure H-9.82 Current Conditions – NF-2: North Fork South Platte near Pine
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- Figure H-9.96 Alternative 8A – SBC-3: South Boulder Creek below Gross Reservoir

Figure H-9.1
FR-1: Fraser River near Winter Park Gage

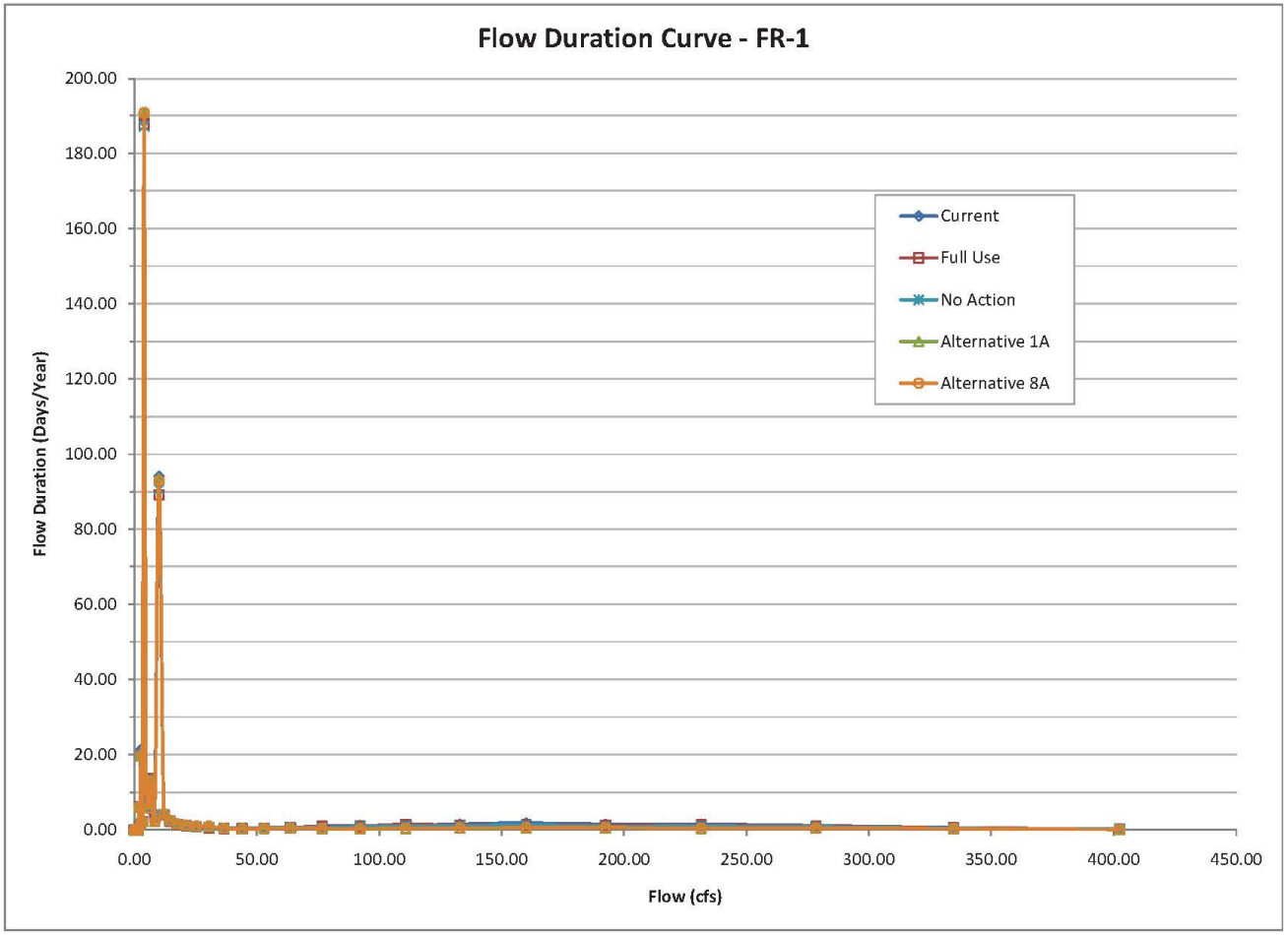


Figure H-9.2
FR-2: Fraser River near Tabernash

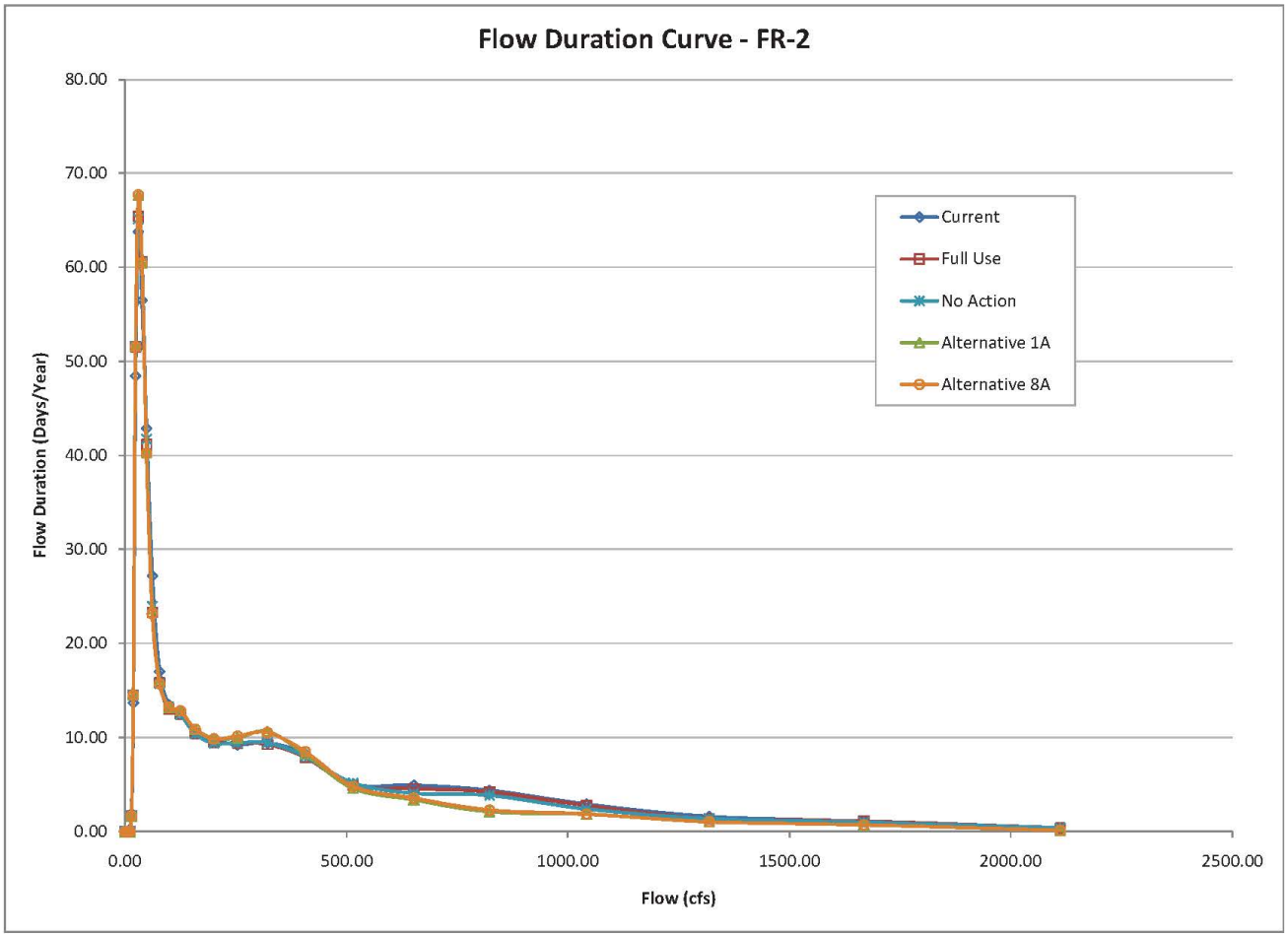


Figure H-9.3
FR-3: St. Louis Creek

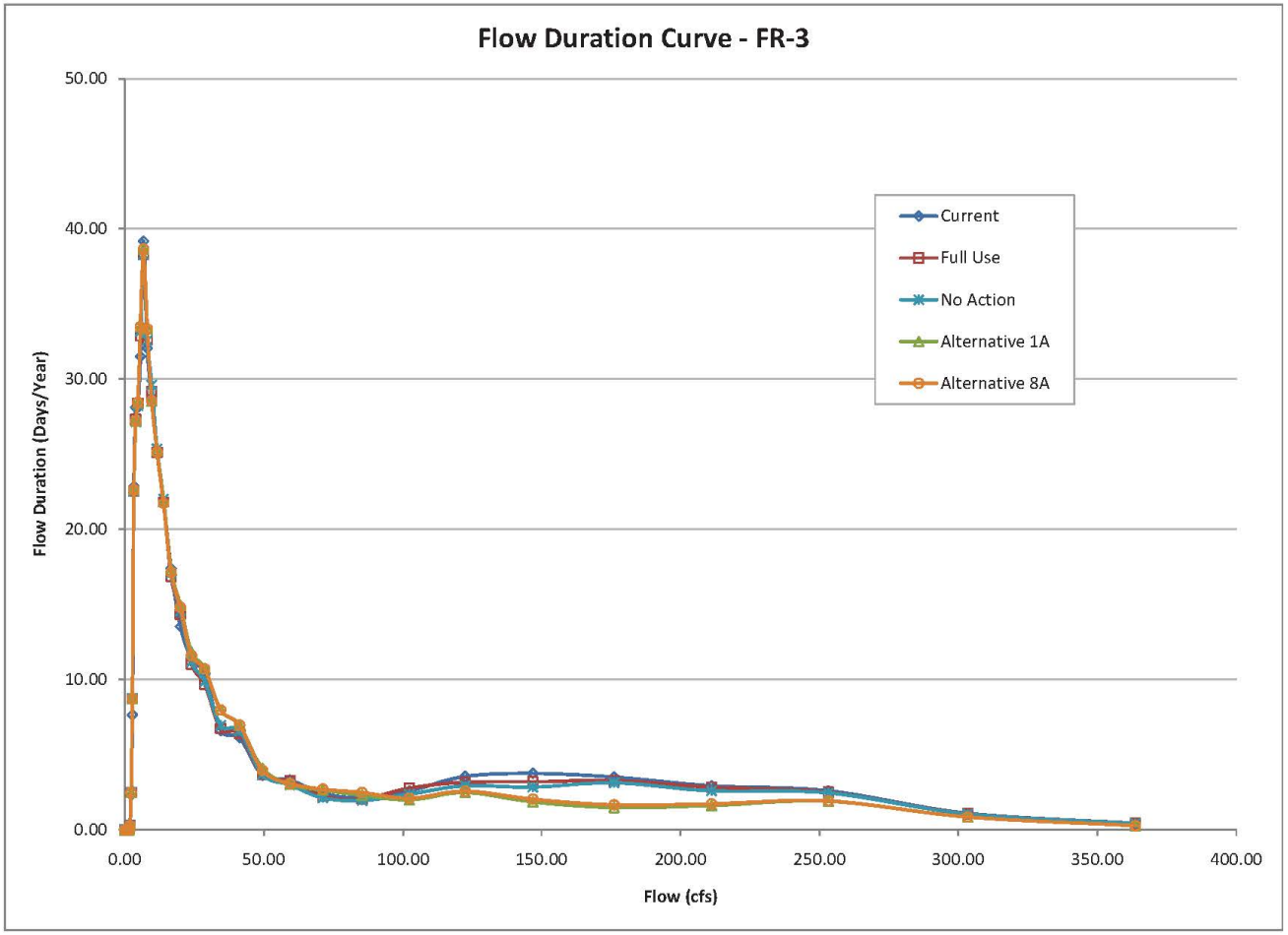


Figure H-9.4
FR-4: Ranch Creek

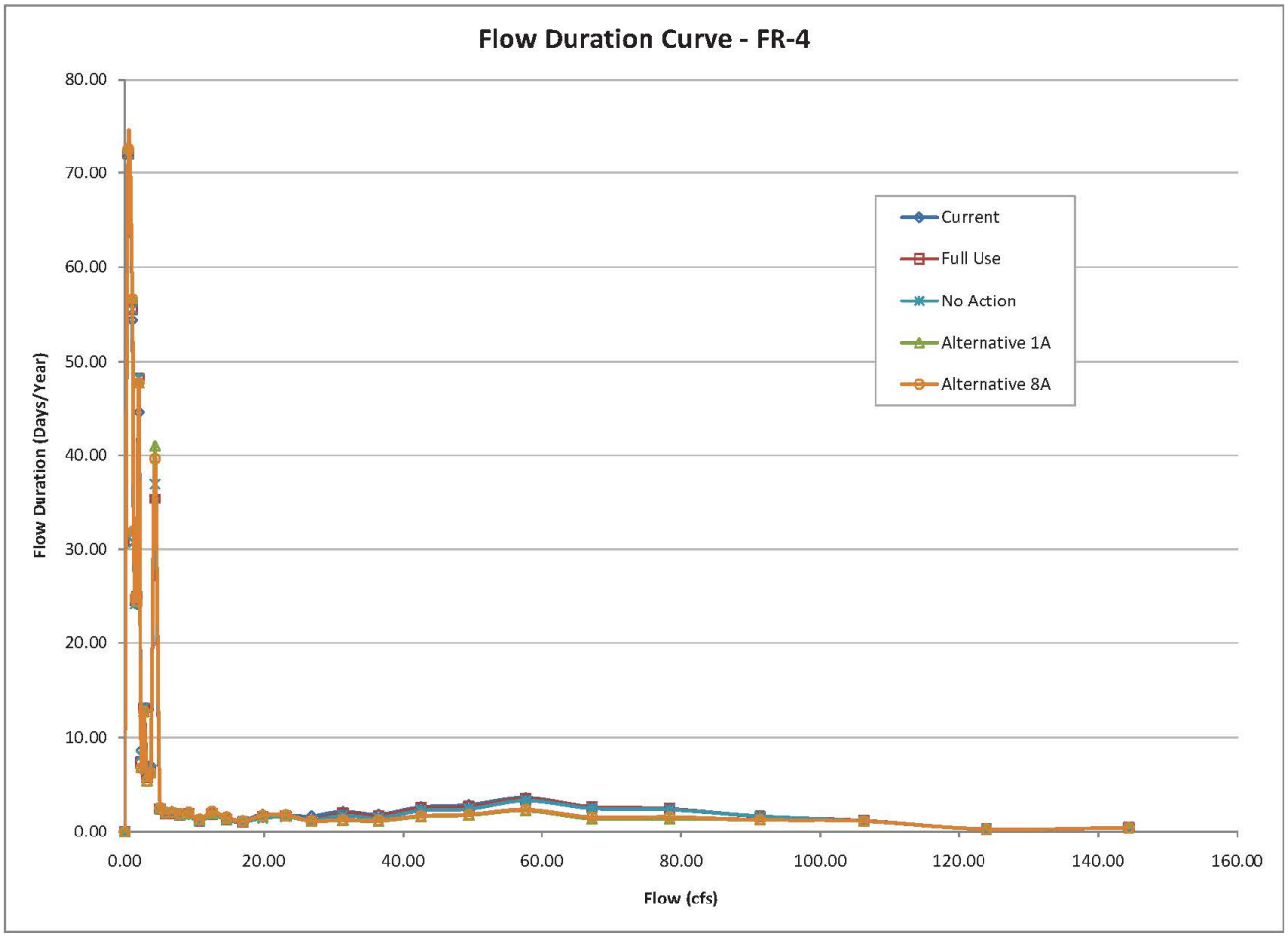


Figure H-9.5
FR-5: Fraser River Downstream of Denver Water's Diversion

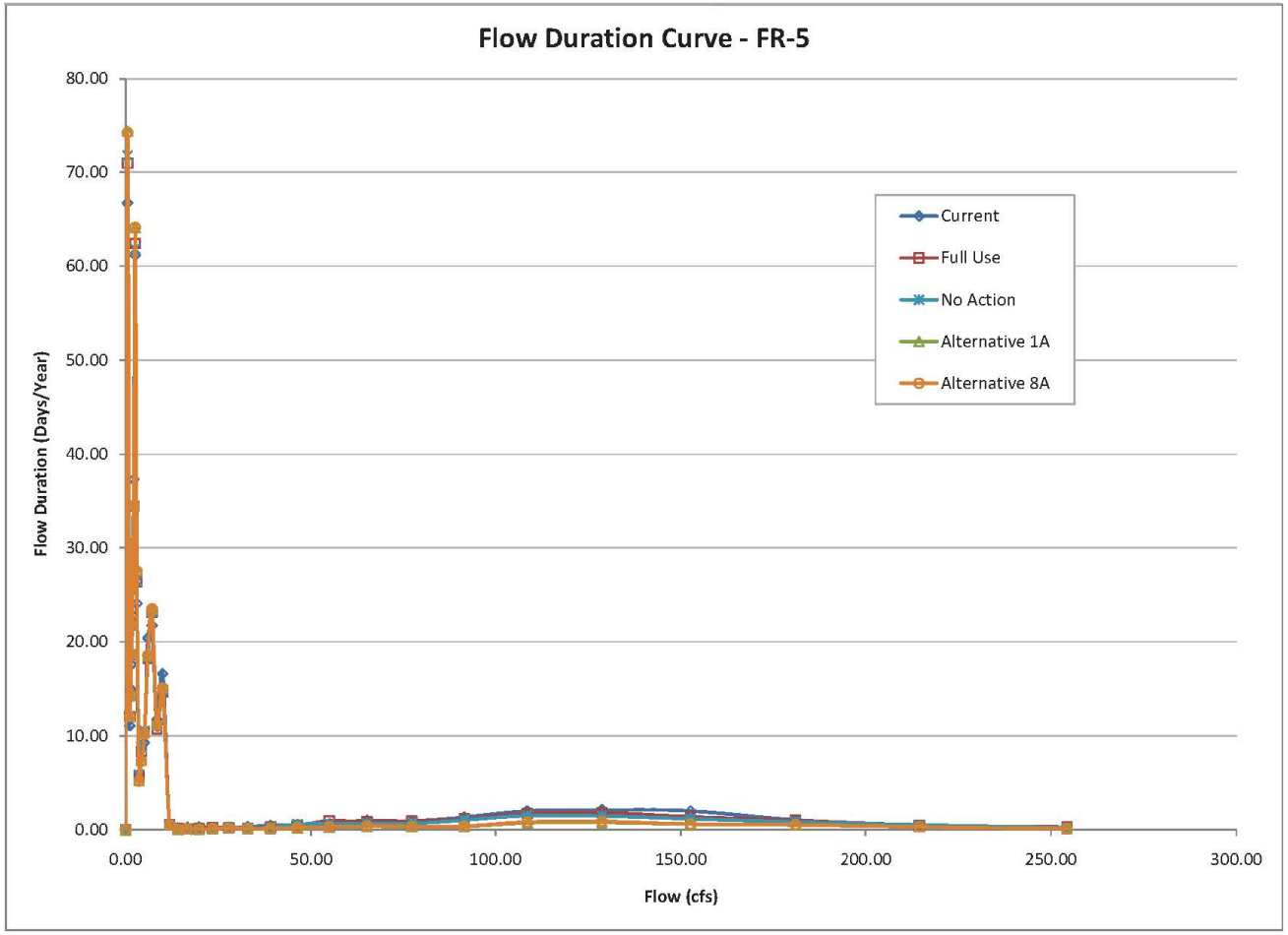


Figure H-9.6
FR-6: Jim Creek

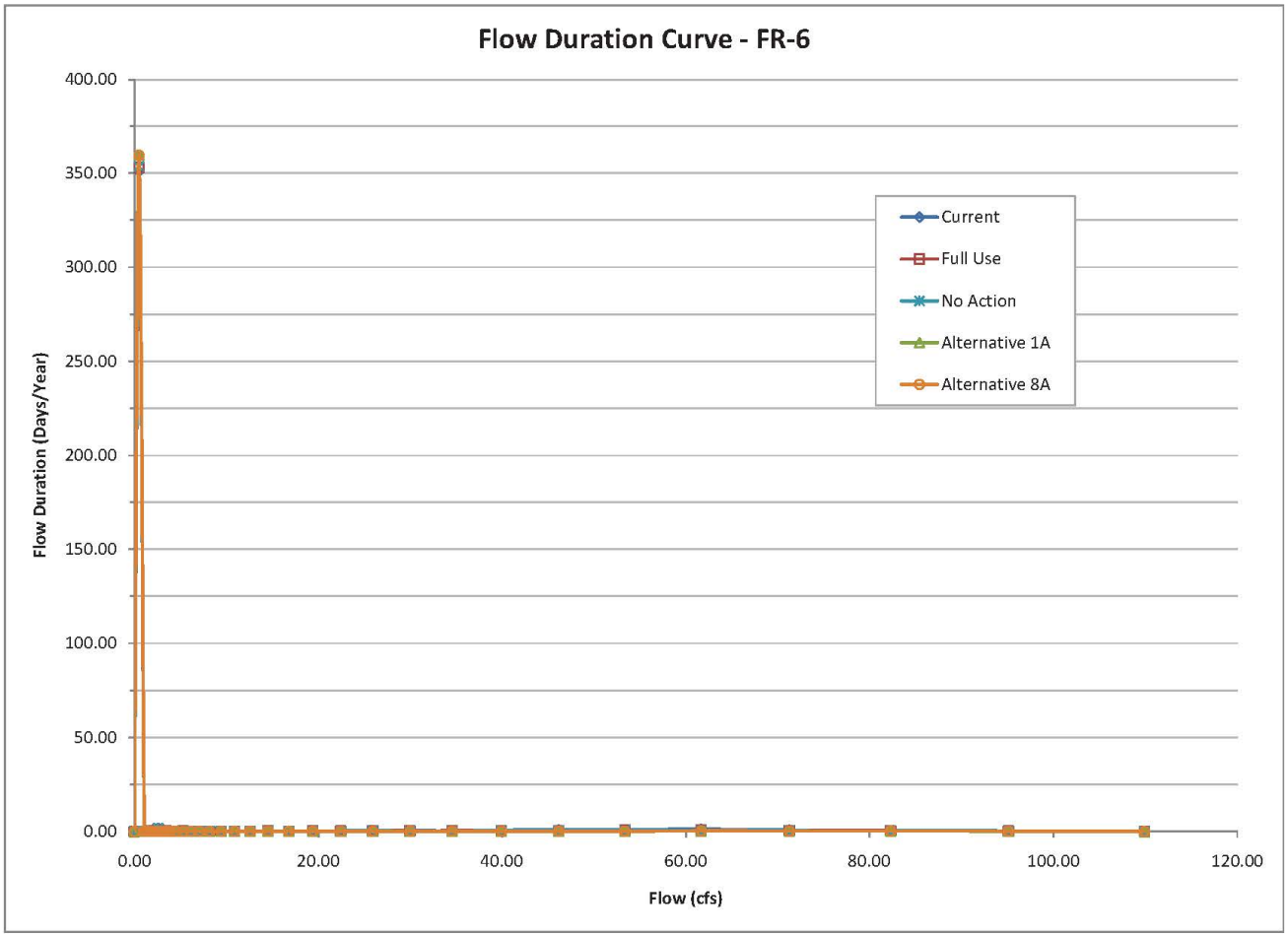


Figure H-9.7
FR-7: Vasquez Creek

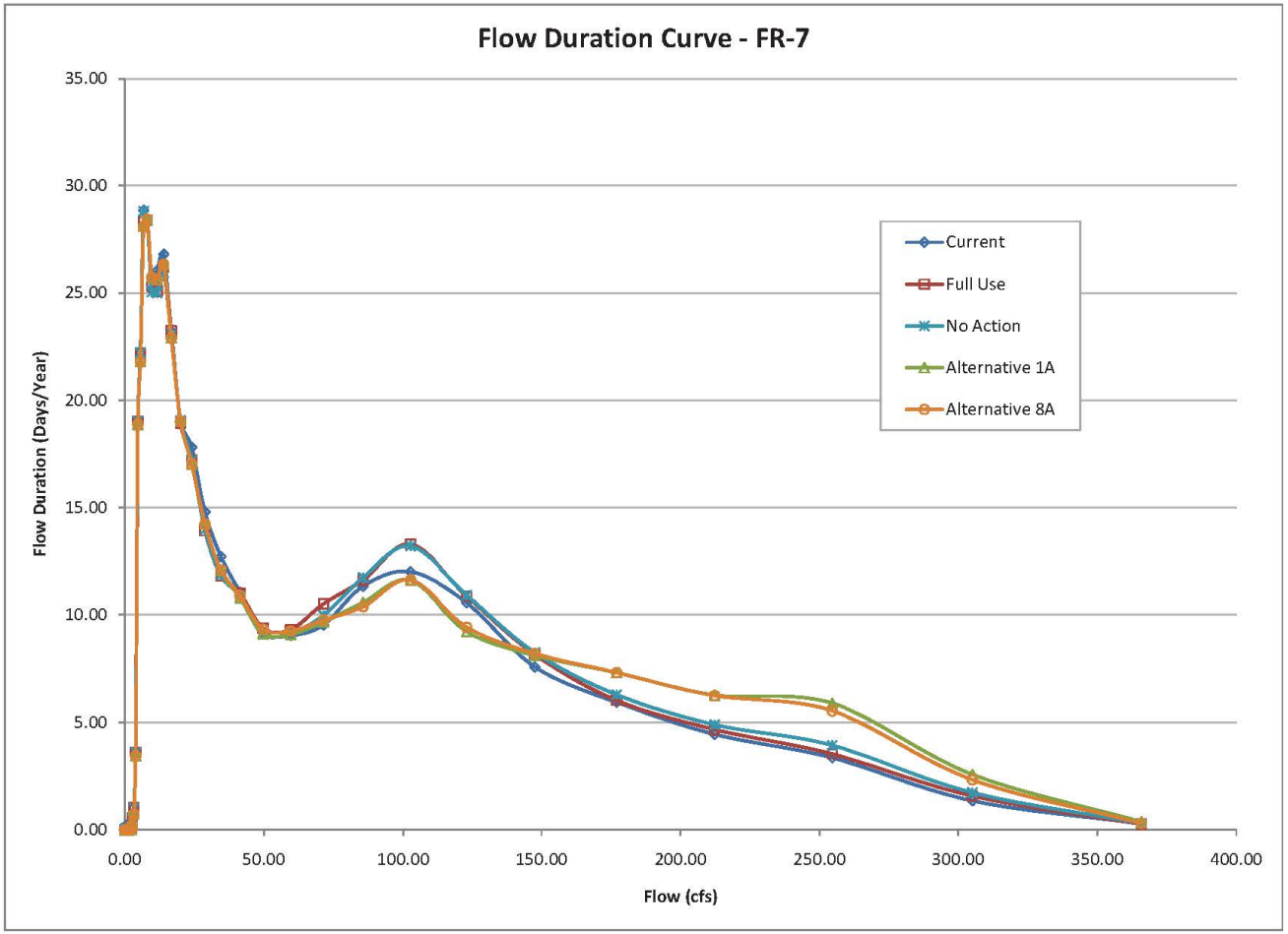


Figure H-9.8
WF-1: Williams Fork near Sugarloaf Campground

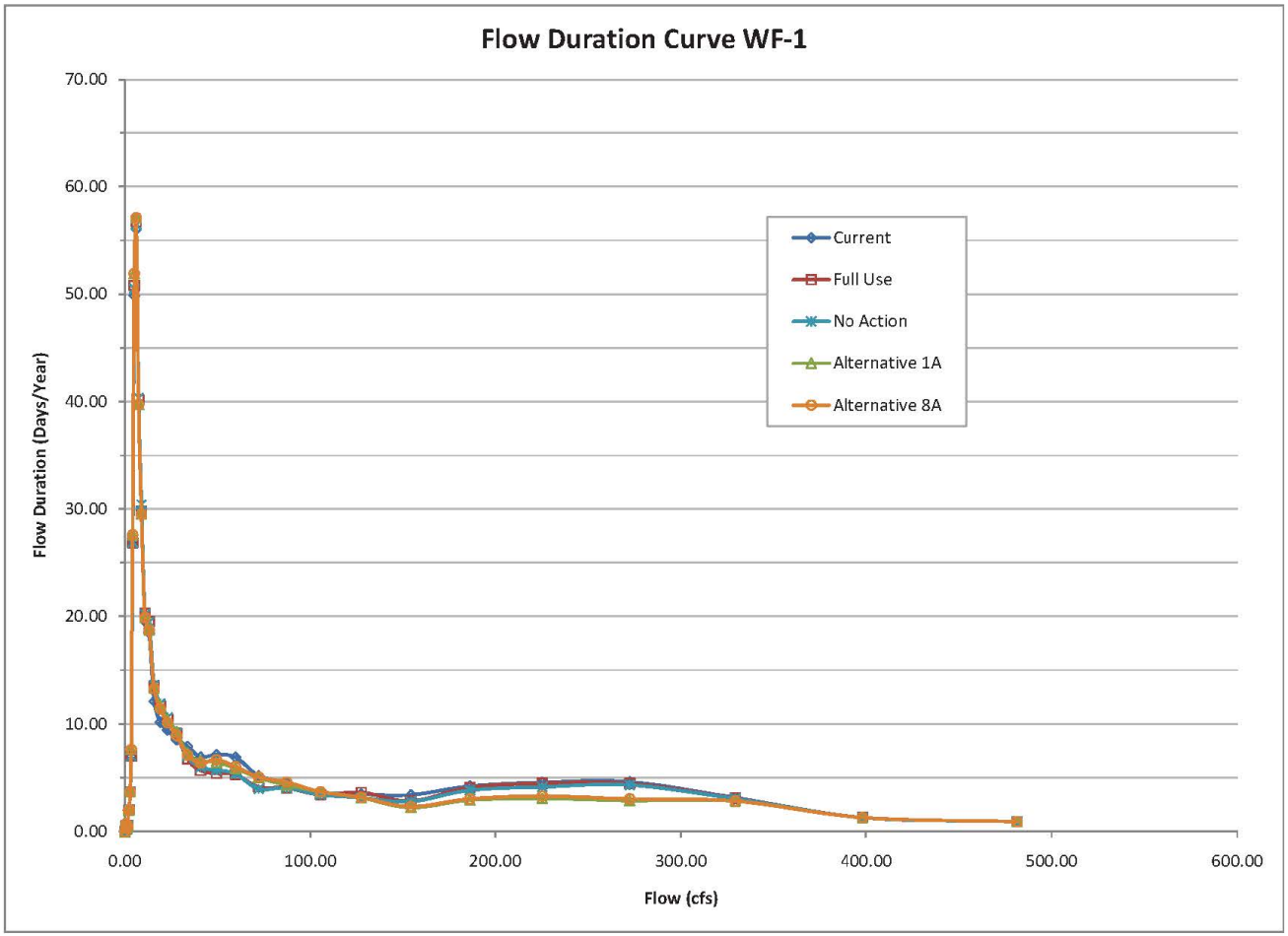


Figure H-9.9
WF-2: Williams Fork below Steelman Creek

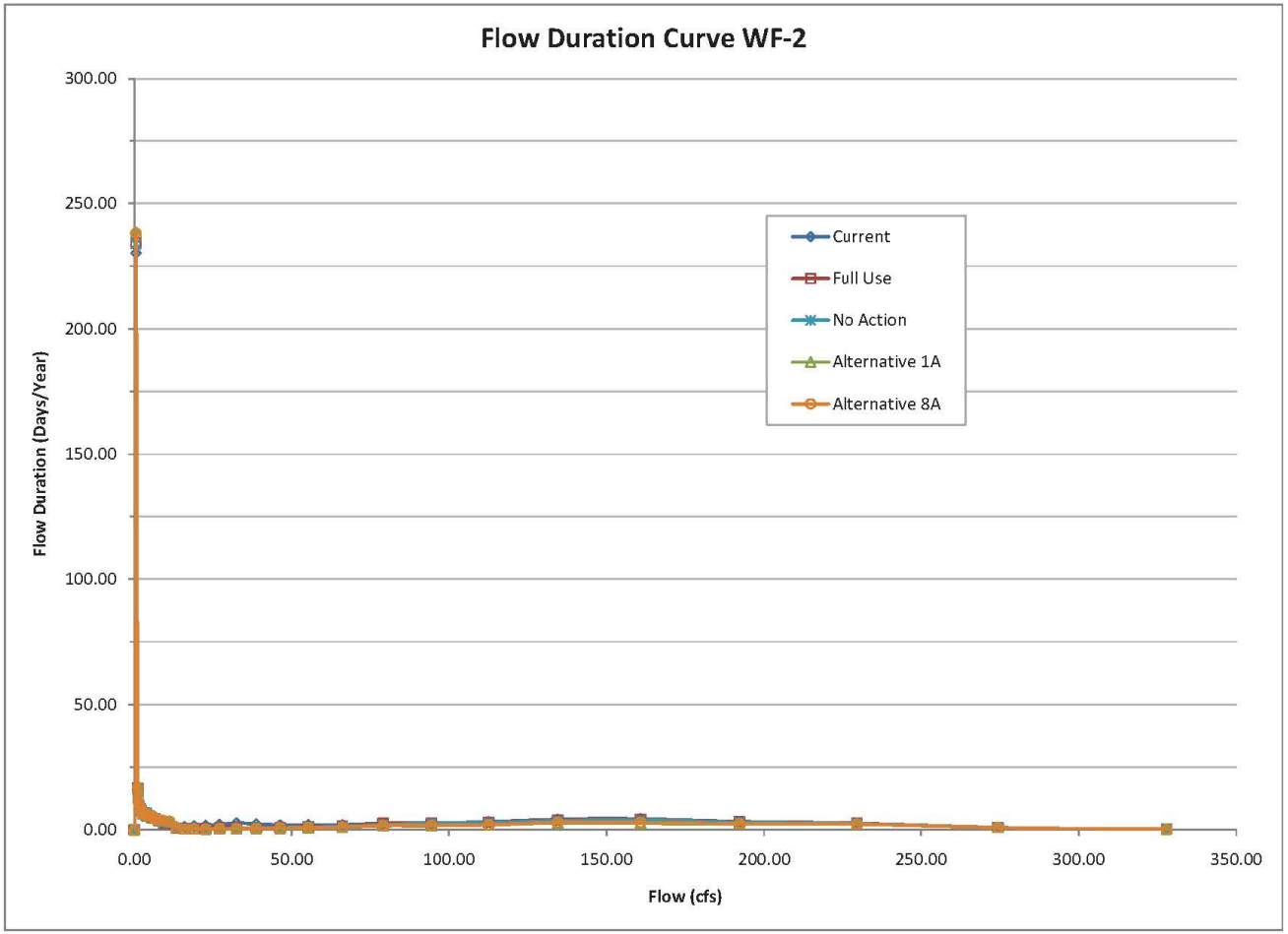


Figure H-9.10
CR-1: Colorado River above Parshall

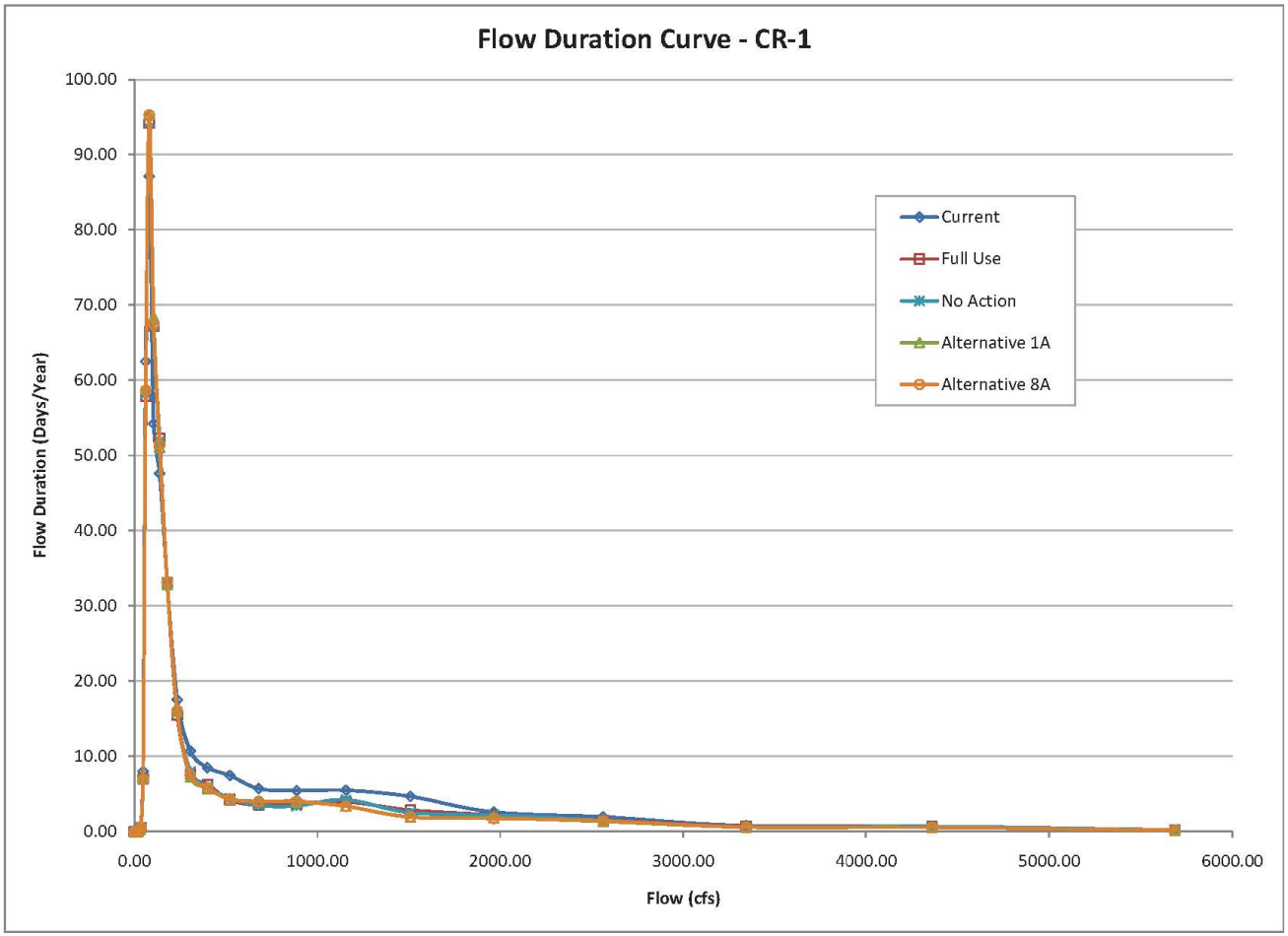


Figure H-9.11
CR-2: Colorado River at Kemp Breeze State Wildlife Area

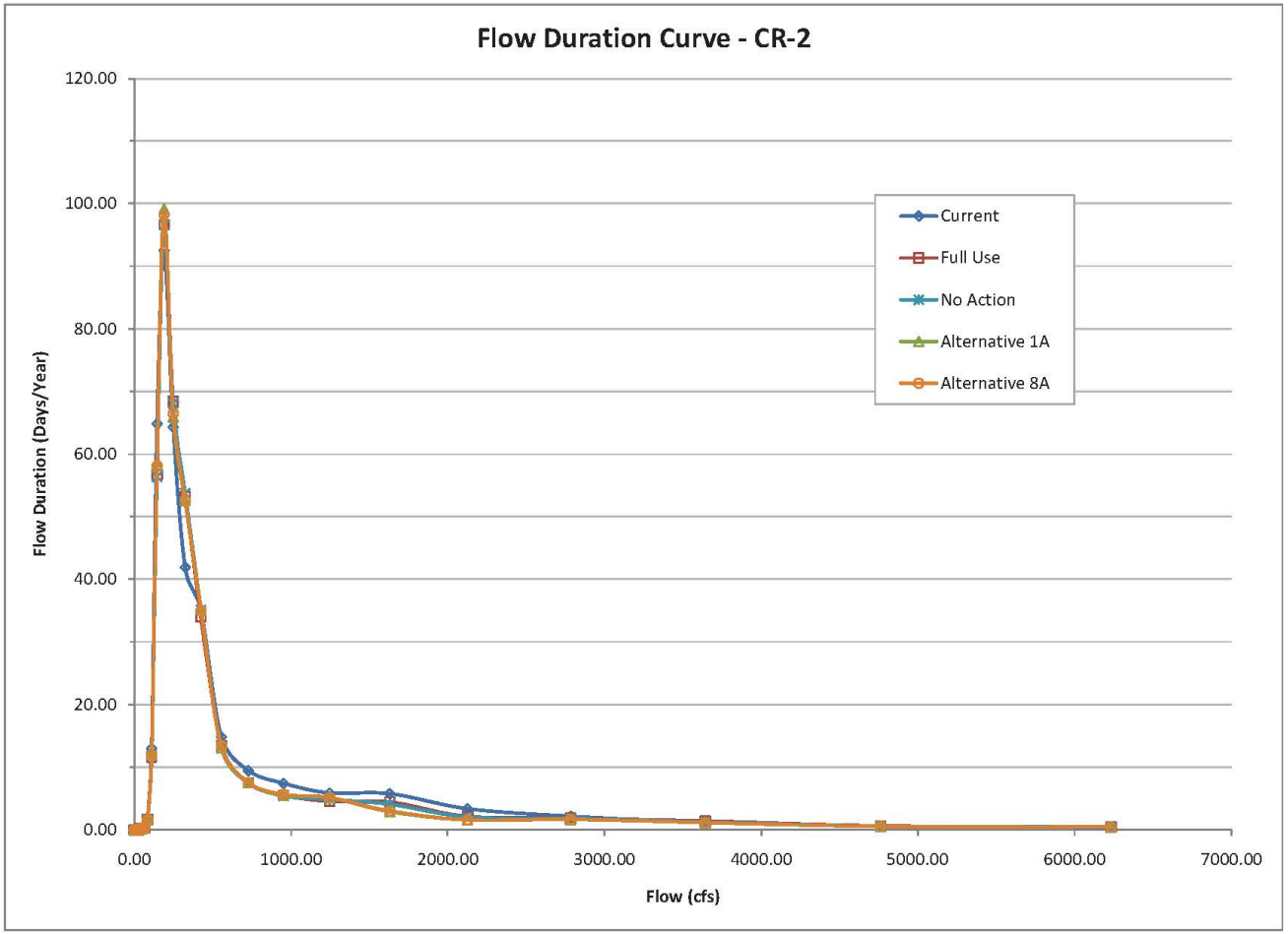


Figure H-9.12
BR-1: Blue River below Boulder Creek

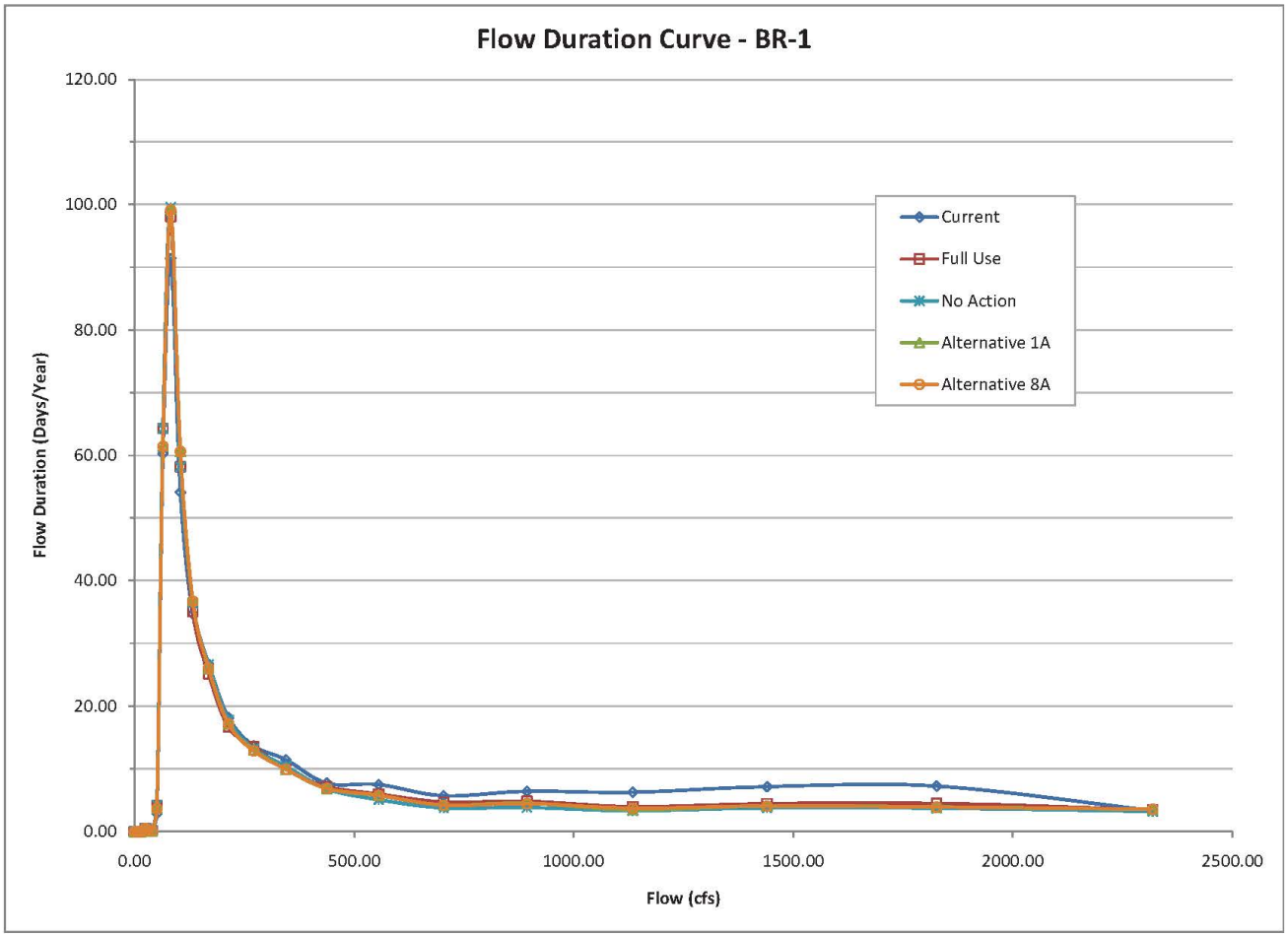


Figure H-9.13
NF-1: North Fork South Platte near Shawnee

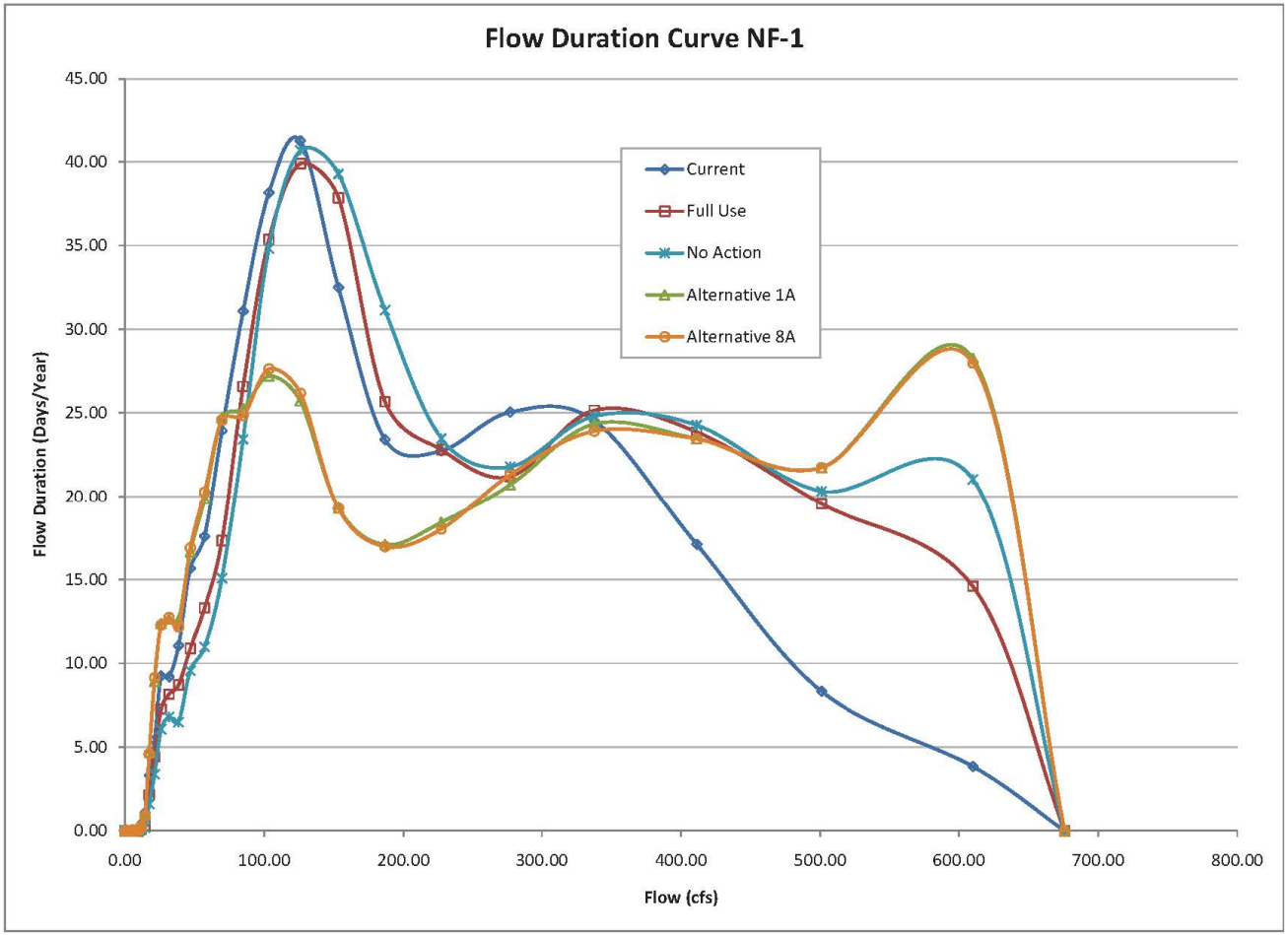


Figure H-9.14
NF-2: North Fork South Platte near Pine

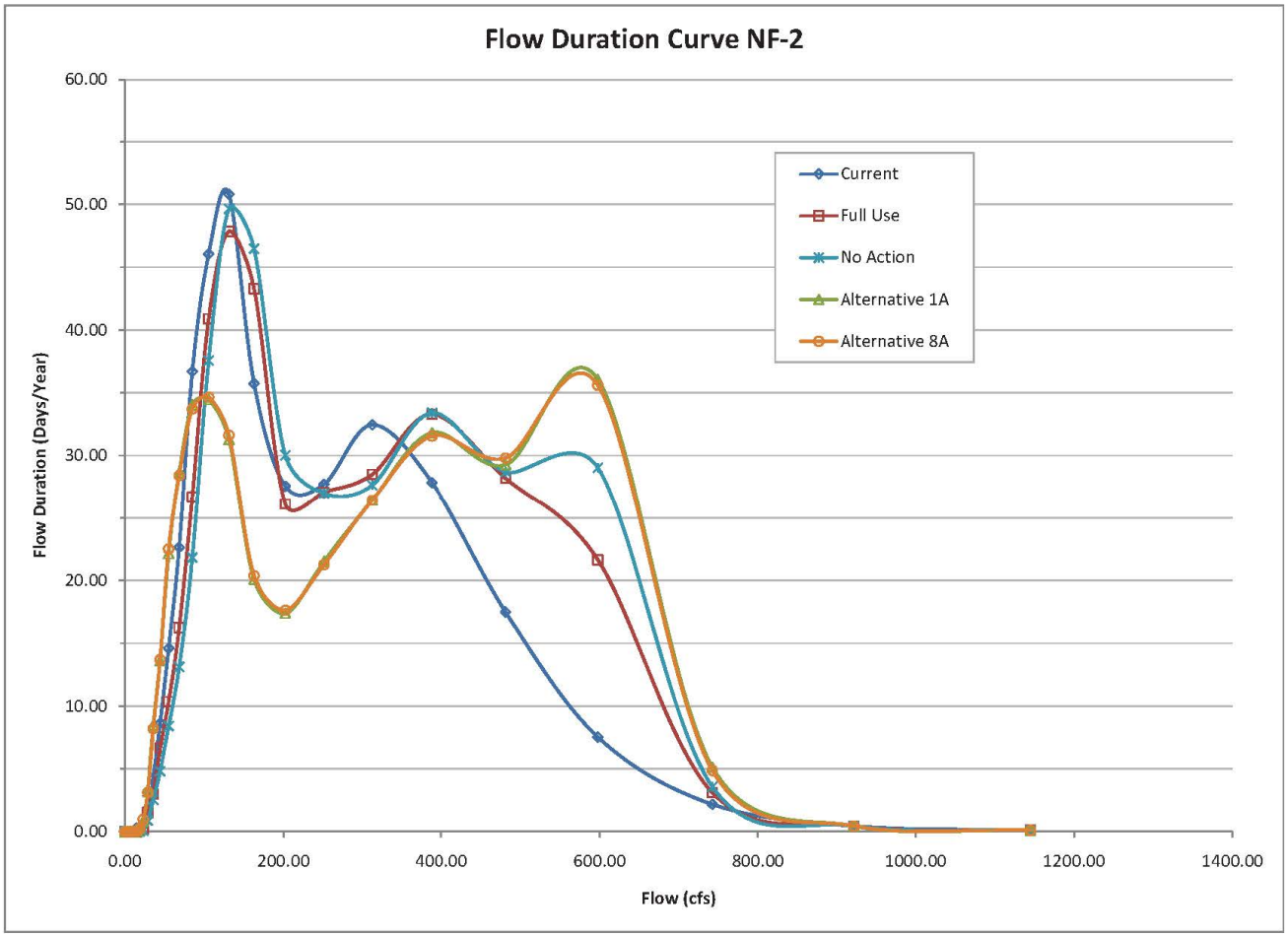


Figure H-9.15
SBC-1: South Boulder Creek above Rollinsville

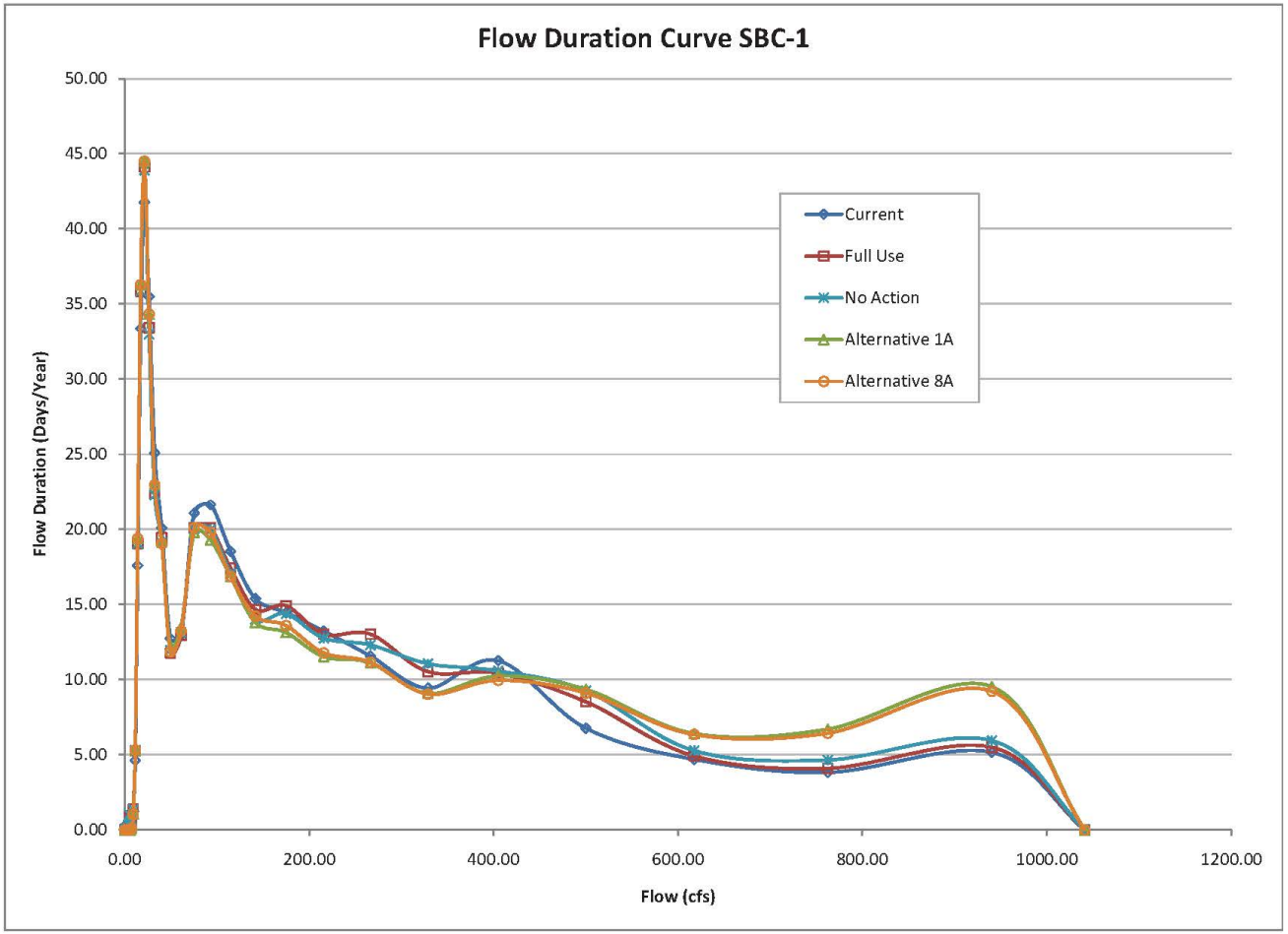


Figure H-9.16
SBC-3: South Boulder Creek below Gross Reservoir

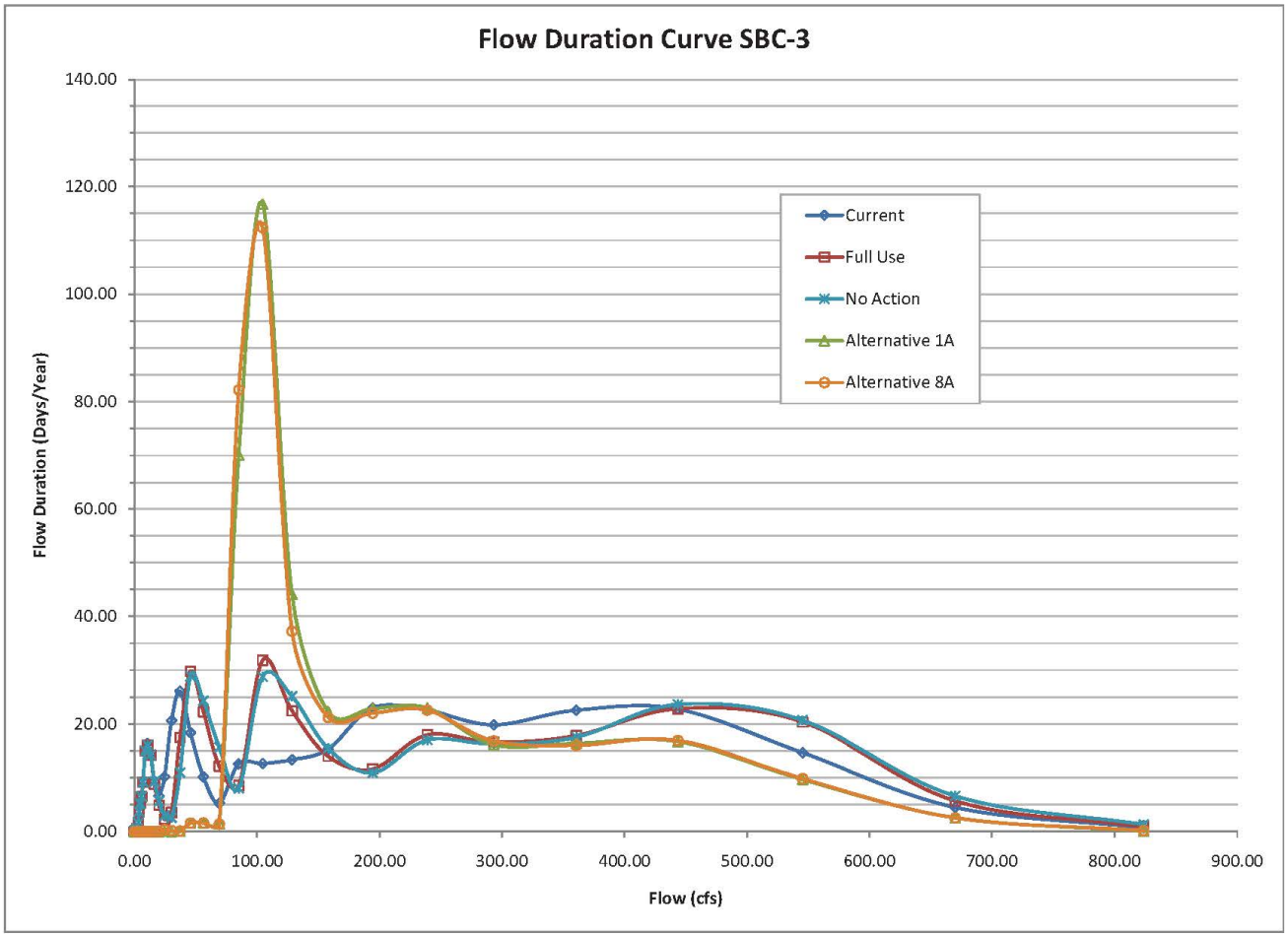


Table H-9.1
Effective Discharge Results

Effective Discharge Results

Site	Abbv	Average X-sec	Q_{eff} (cfs)				
			Current Conditions	Full Use	Alt. 1A	Alt 8A	No Action
Frasier River near Winter Park Gage	FR-1	XC-4					
Parker			243	223	290	290	290
Wilcock & Crowe			290	290	290	290	290
MPM			231	231	278	278	278
Yang			231	231	278	278	278
Average			*249*	*244*	*284*	*284*	*284*
Frasier River Tabernash	FR-2	XC-5					
Parker			877	968	968	1,436	968
Wilcock & Crowe			1,930	1,748	1,748	1,436	1,930
MPM			824	824	407	407	824
Yang			1,042	1,669	1,042	1,042	1,669
Average			*1,168*	*1,302*	*1,041*	*1,080*	*1,348*
St. Louis Creek	FR-3	XC-6					
Parker			264	264	264	264	264
Wilcock & Crowe			264	264	264	264	264
MPM			253	253	253	253	253
Yang			253	253	253	253	253
Average			*259*	*259*	*259*	*259*	*259*
Ranch Creek	FR-4	XC-5					
Parker			76	76	97	97	76
Wilcock & Crowe			147	147	147	147	147
MPM			58	58	58	58	58
Yang			58	78	106	106	78
Average			*85*	*90*	*102*	*102*	*90*
Frasier River Downstream of DW Diversion	FR-5	XC-9					
Parker			185	185	185	185	185
Wilcock & Crowe			185	185	185	185	218
MPM			153	181	214	181	181
Yang			153	181	181	181	181
Average			*169*	*183*	*191*	*183*	*191*

Q_{eff} - Effective Discharge (cfs)

Effective Discharge Results

Site	Abbv	Average X-sec	Q_{eff} (cfs)				
			Current Conditions	Full Use	Alt. 1A	Alt 8A	No Action
Jim Creek	FR-6	XC-8					
Parker			114	120	99	99	104
Wilcock & Crowe			114	104	99	99	104
MPM			62	62	82	82	62
Yang			62	62	82	82	62
Average			*88*	*87*	*91*	*91*	*83*
Vasquez Creek	FR-7	XC-6					
Parker			250	250	268	268	268
Wilcock & Crowe			250	250	268	268	250
MPM			123	123	255	255	123
Yang			123	123	255	255	123
Average			*187*	*187*	*262*	*262*	*191*
Williams Fork near Sugarloaf Campground	WF-1	XC-4					
Parker			249	249	301	301	249
Wilcock & Crowe			331	331	331	331	331
MPM			272	272	329	329	272
Yang			272	272	329	329	272
Average			*281*	*281*	*323*	*323*	*281*
Williams Fork below Steelman Creek	WF-2	XC-7					
Parker			171	171	235	171	171
Wilcock & Crowe			235	235	235	235	235
MPM			161	161	230	230	161
Yang			161	161	230	230	161
Average			*182*	*182*	*233*	*217*	*182*
Colorado River above Parshall	CR-1	XC-2					
Parker			5,414	5,414	4,545	5,107	5,107
Wilcock & Crowe			4,287	4,287	4,545	4,545	4,287
MPM			1,506	1,154	1,154	1,154	1,154
Yang			1,506	1,964	2,562	2,562	1,154
Average			*3,178*	*3,205*	*3,202*	*3,342*	*2,926*

Q_{eff} - Effective Discharge (cfs)

Effective Discharge Results

Site	Abbv	Average X-sec	Q_{eff} (cfs)				
			Current Conditions	Full Use	Alt. 1A	Alt 8A	No Action
Colorado at Kemp Breeze SWA	CR-2	XC-6					
Parker			5,612	5,189	5,612	5,612	5,612
Wilcock & Crowe			5,612	6,070	5,612	5,612	6,070
MPM			1,627	1,627	1,244	1,244	1,627
Yang			1,627	1,627	2,784	2,784	1,627
Average			*3,620*	*3,628*	*3,813*	*3,813*	*3,734*
Blue River below Boulder Creek	BR-1	XC-8					
Parker			2,277	2,277	2,277	2,277	2,277
Wilcock & Crowe			2,277	2,125	2,277	2,277	2,277
MPM			1,827	2,319	2,319	2,319	2,319
Yang			1,827	2,319	2,319	2,319	2,319
Average			*2,052*	*2,260*	*2,298*	*2,298*	*2,298*
North Fork of South Platte near Shawnee	NF-1	XC-6					
Parker			574	574	574	574	574
Wilcock & Crowe			574	574	574	574	574
MPM			338	411	610	610	610
Yang			338	501	610	610	610
Average			*456*	*515*	*592*	*592*	*592*
North Fork of South Platte near Pine	NF-2	XC-4					
Parker			815	606	606	606	606
Wilcock & Crowe			606	606	606	606	606
MPM			388	482	598	598	598
Yang			388	482	598	598	598
Average			*549*	*544*	*602*	*602*	*602*
South Boulder Creek above Rollinsville	SBC-1	XC-7					
Parker			990	942	942	942	990
Wilcock & Crowe			942	942	942	942	942
MPM			93	93	941	941	500
Yang			941	941	941	941	941
Average			*742*	*730*	*942*	*942*	*843*

Q_{eff} - Effective Discharge (cfs)

Effective Discharge Results

Site	Abbv	Average X-sec	Q_{eff} (cfs)				
			Current Conditions	Full Use	Alt. 1A	Alt 8A	No Action
South Boulder Creek below Gross Reservoir	SBC-3	XC-10					
Parker			633	527	633	633	633
Wilcock & Crowe			560	527	527	527	527
MPM			443	545	443	443	545
Yang			443	545	443	443	545
Average			*520*	*536*	*512*	*512*	*563*

Q_{eff} - Effective Discharge (cfs)

Figure H-9.17
Current Conditions
FR-1: Fraser River near Winter Park Gage

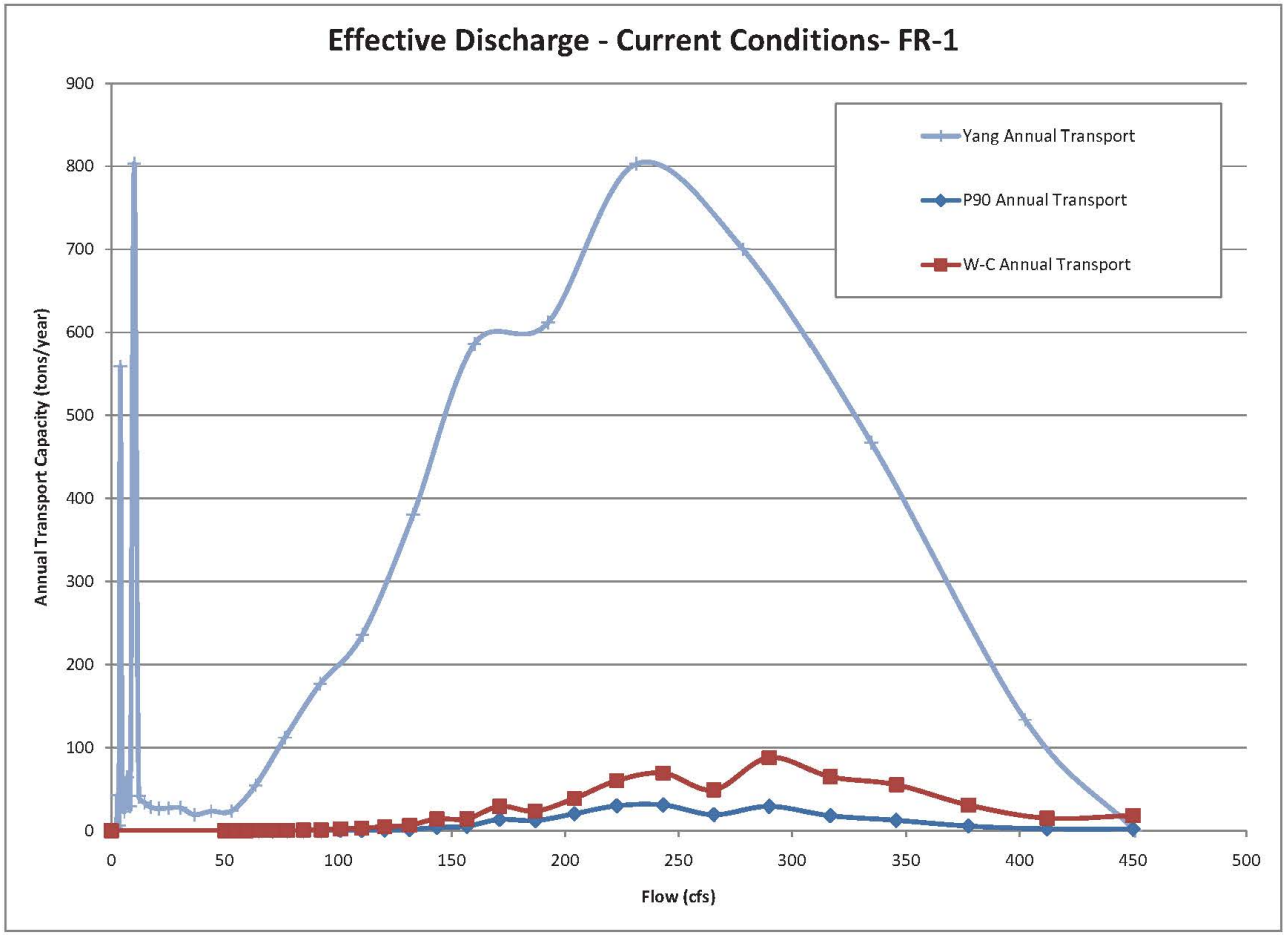


Figure H-9.18
Full Use
FR-1: Fraser River near Winter Park Gage

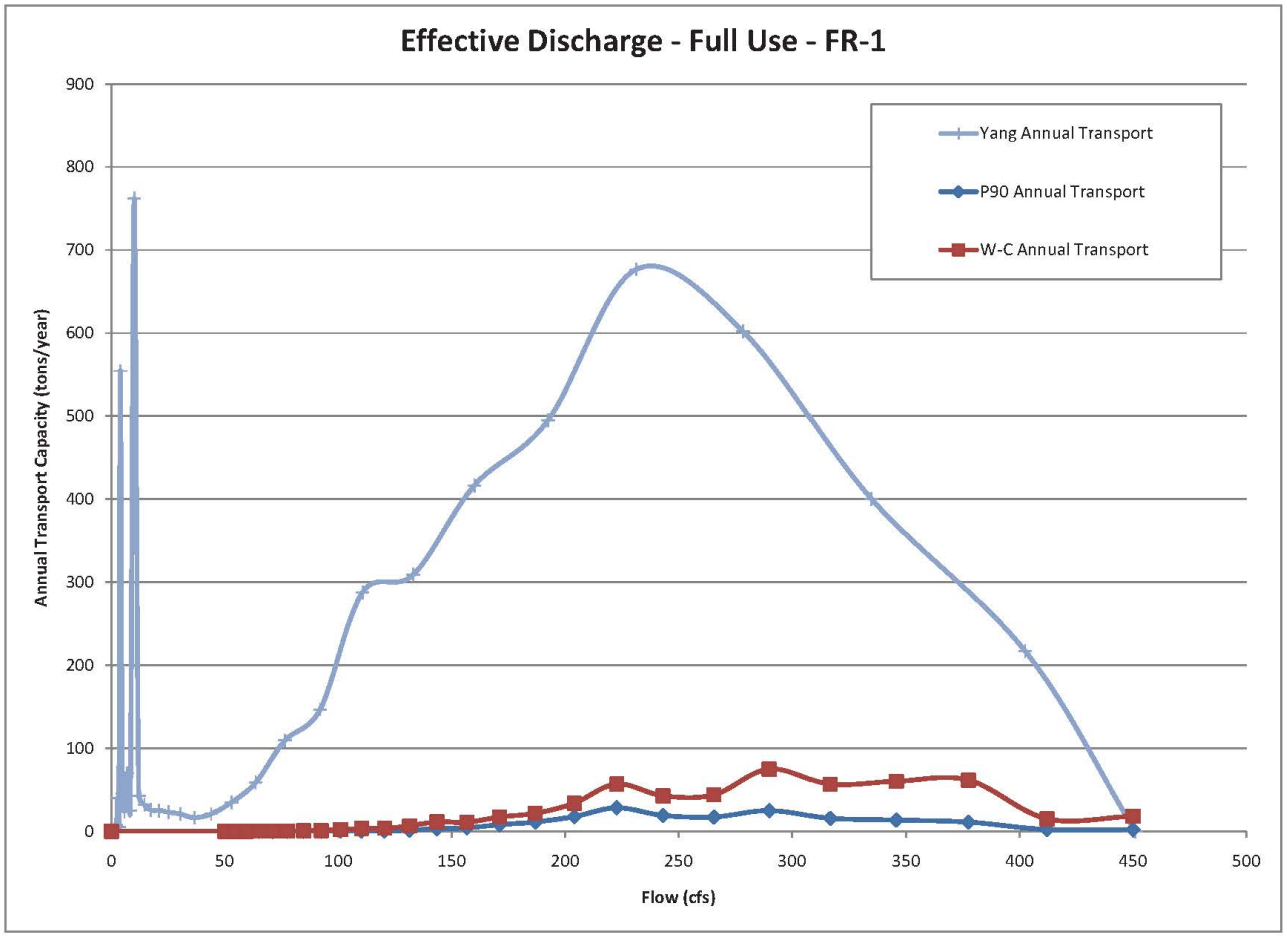


Figure H-9.19
No Action
FR-1: Fraser River near Winter Park Gage

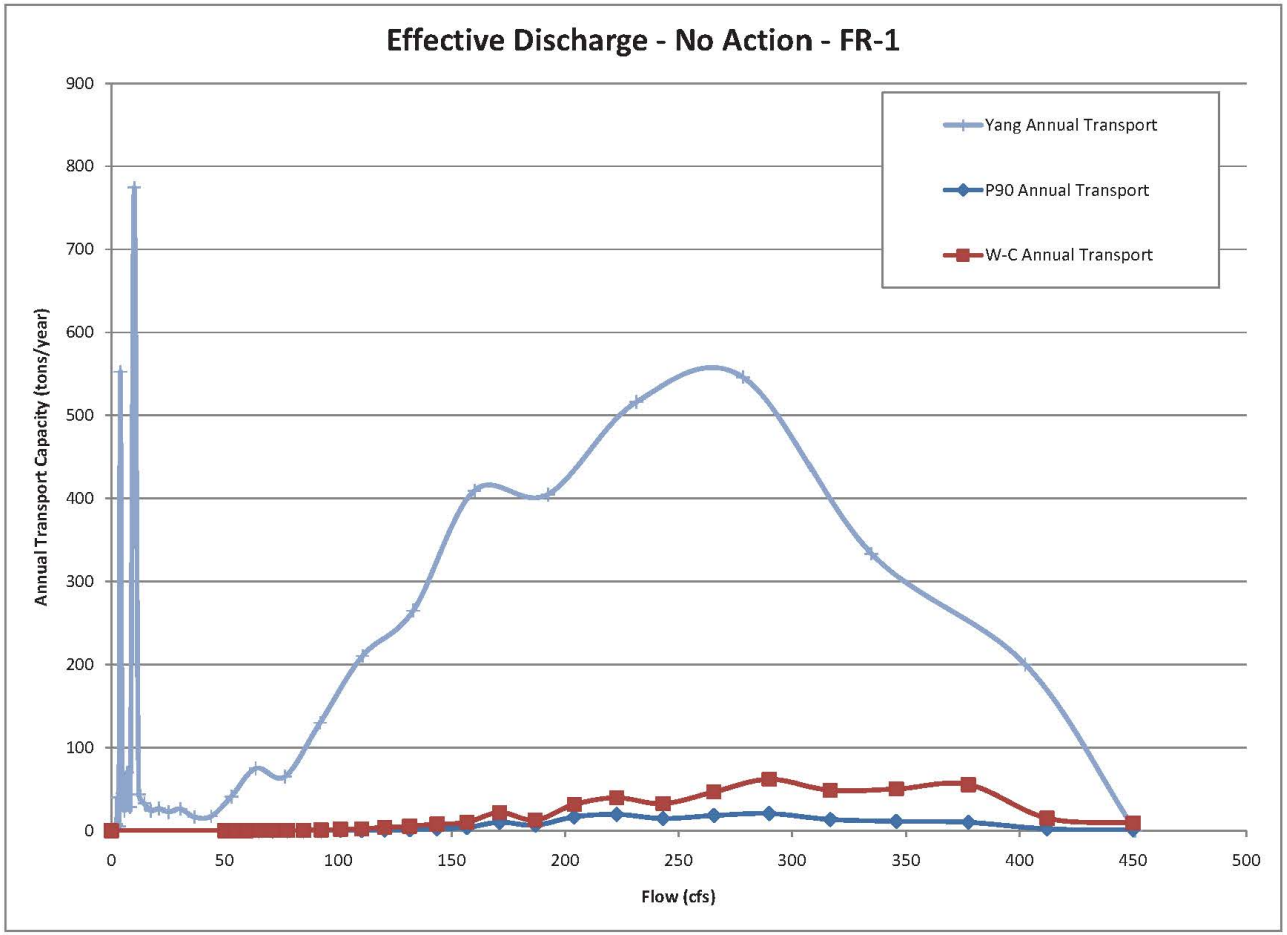


Figure H-9.20
Alternative 1A
FR-1: Fraser River near Winter Park Gage

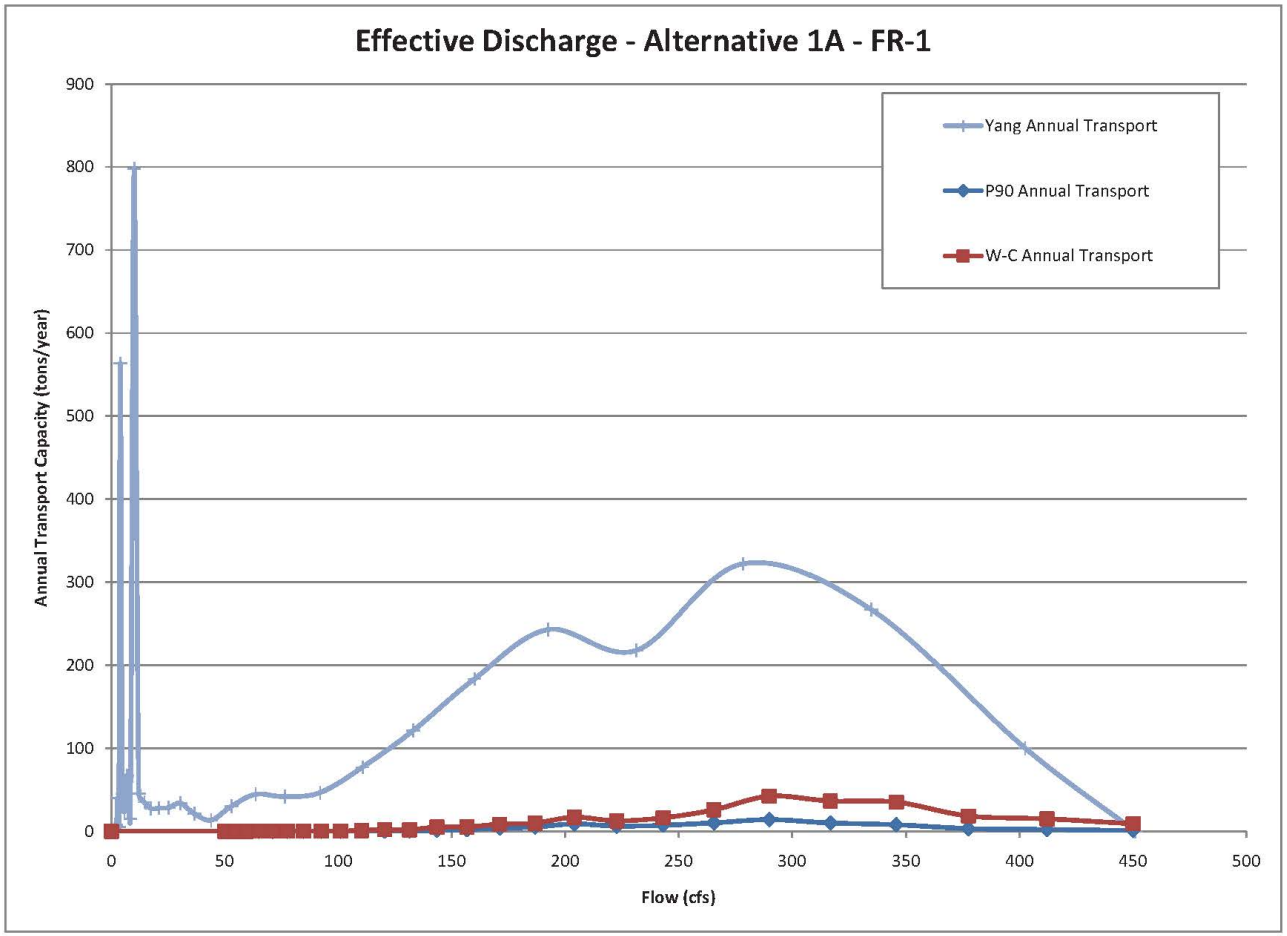


Figure H-9.21
Alternative 8A
FR-1: Fraser River near Winter Park Gage

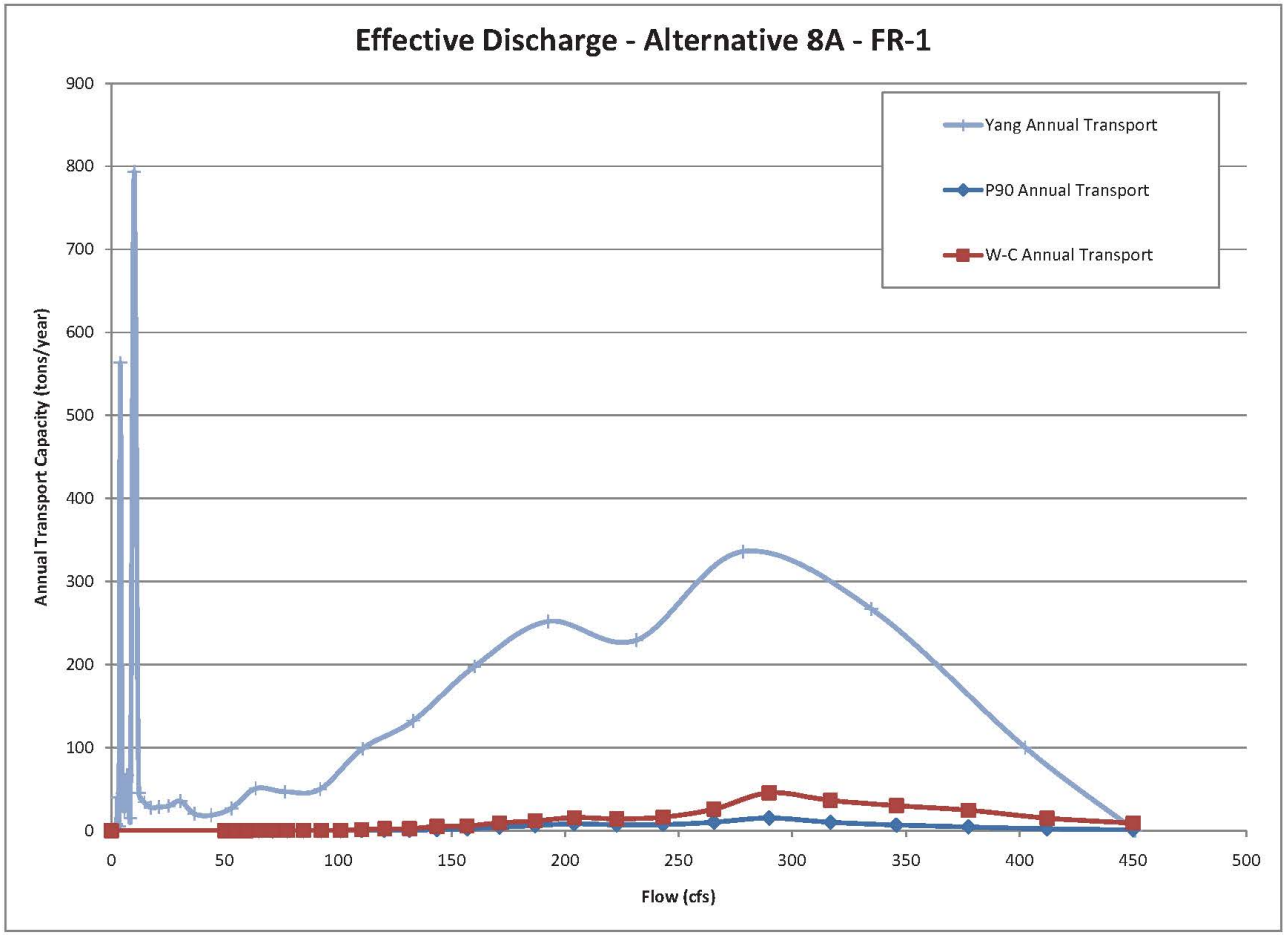


Figure H-9.22
Current Conditions
FR-2: Fraser River near Tabernash

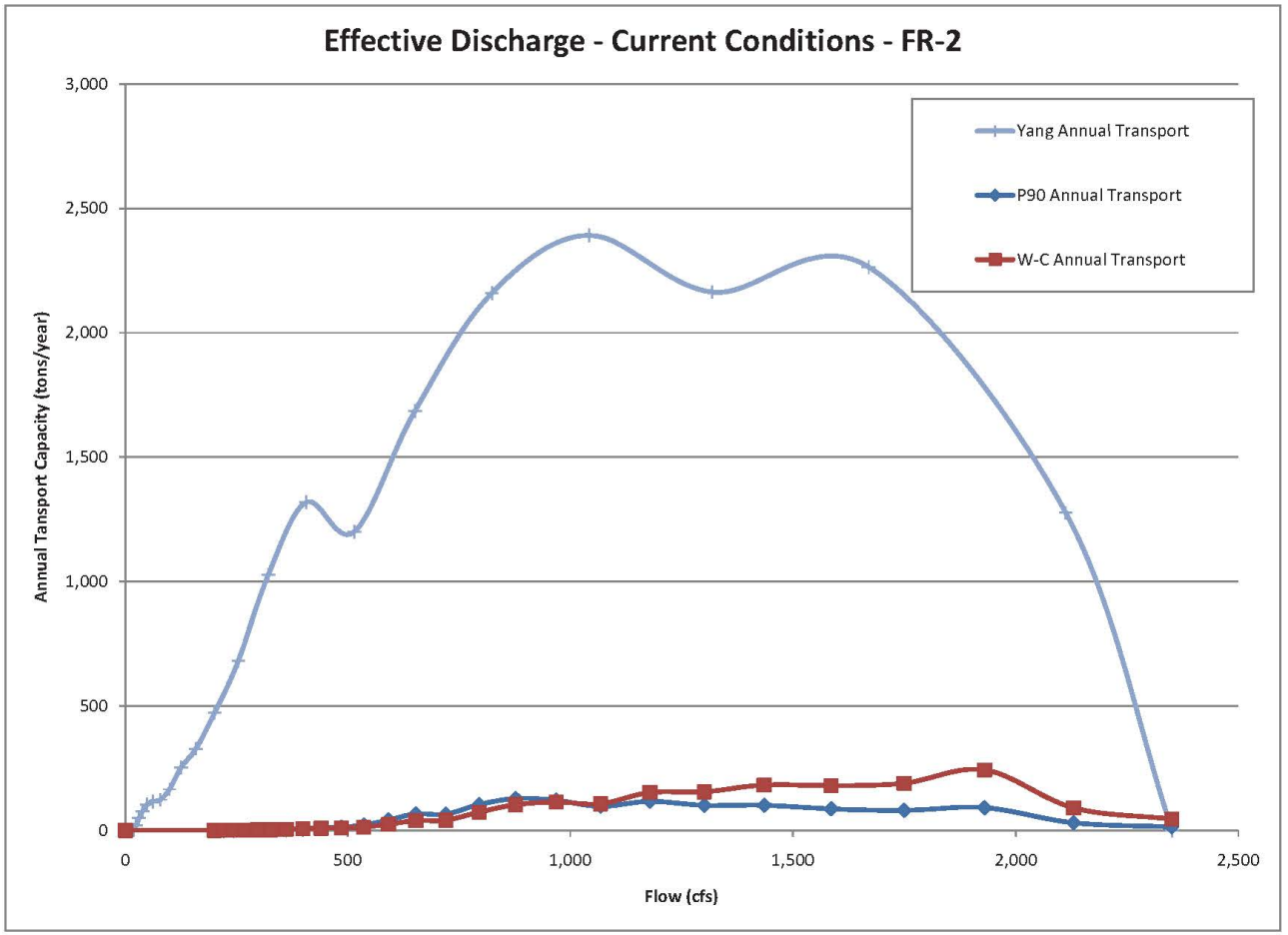


Figure H-9.23
Full Use
FR-2: Fraser River near Tabernash

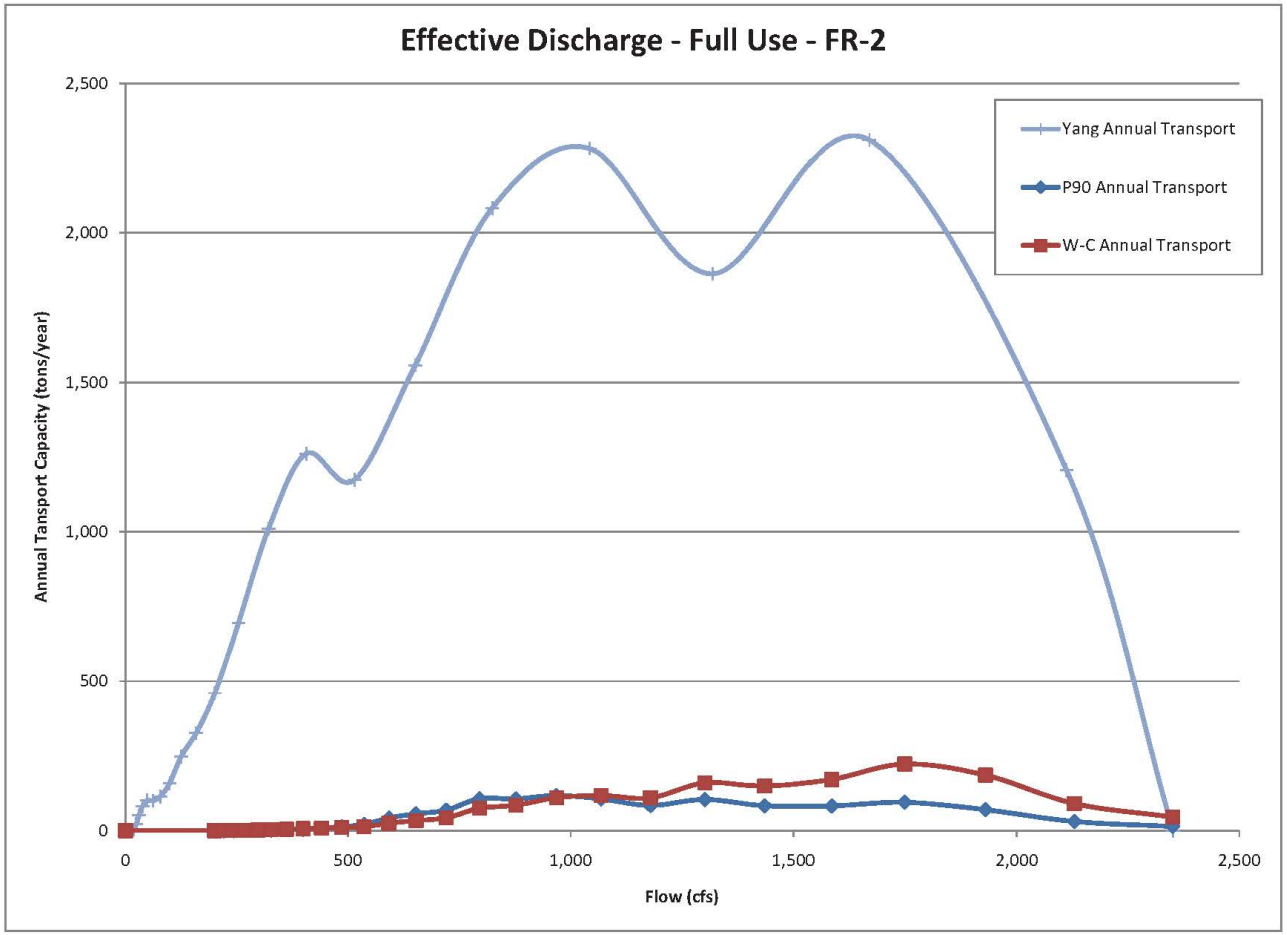


Figure H-9.24
No Action
FR-2: Fraser River near Tabernash

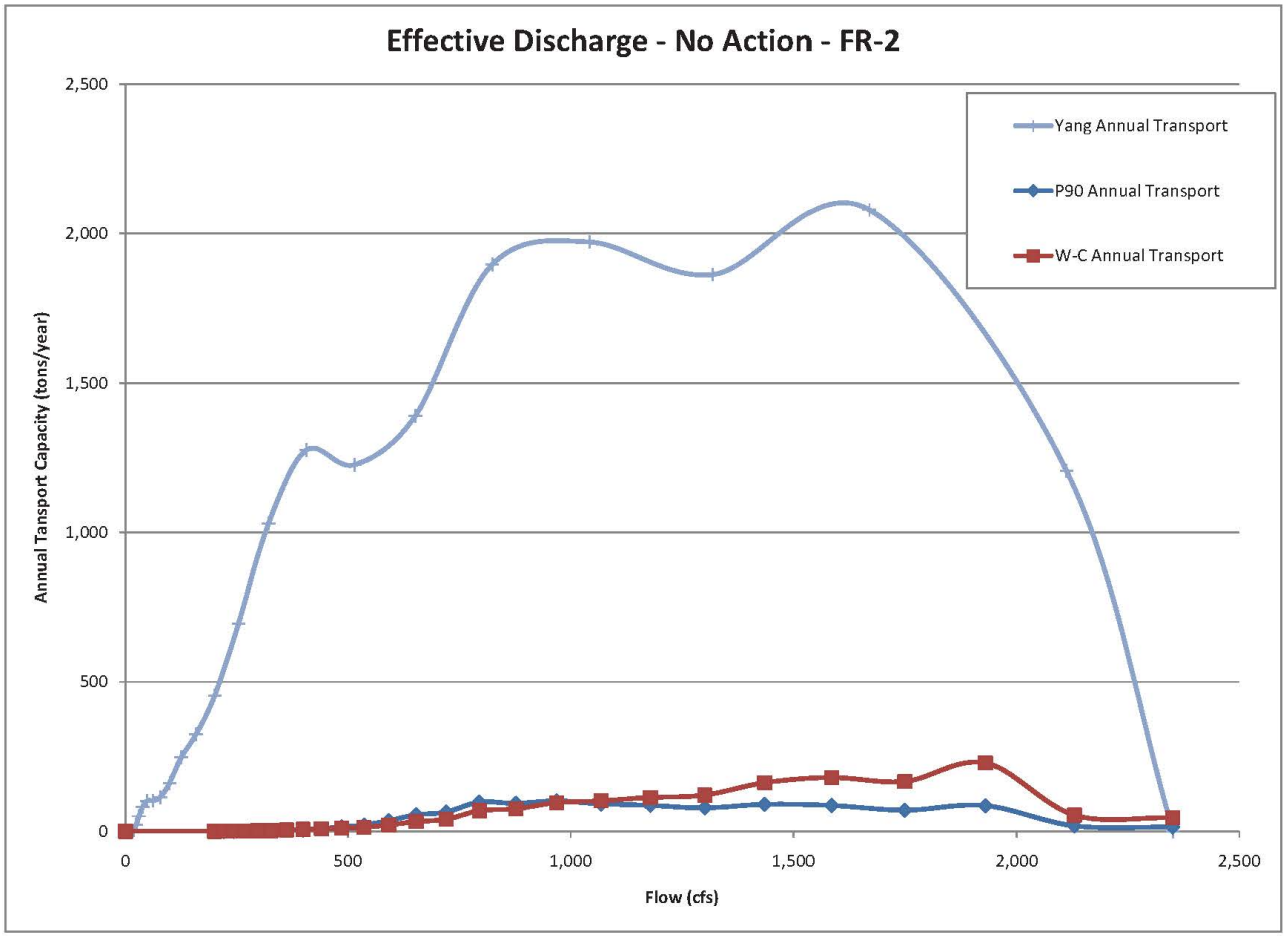


Figure H-9.25
Alternative 1A
FR-2: Fraser River near Tabernash

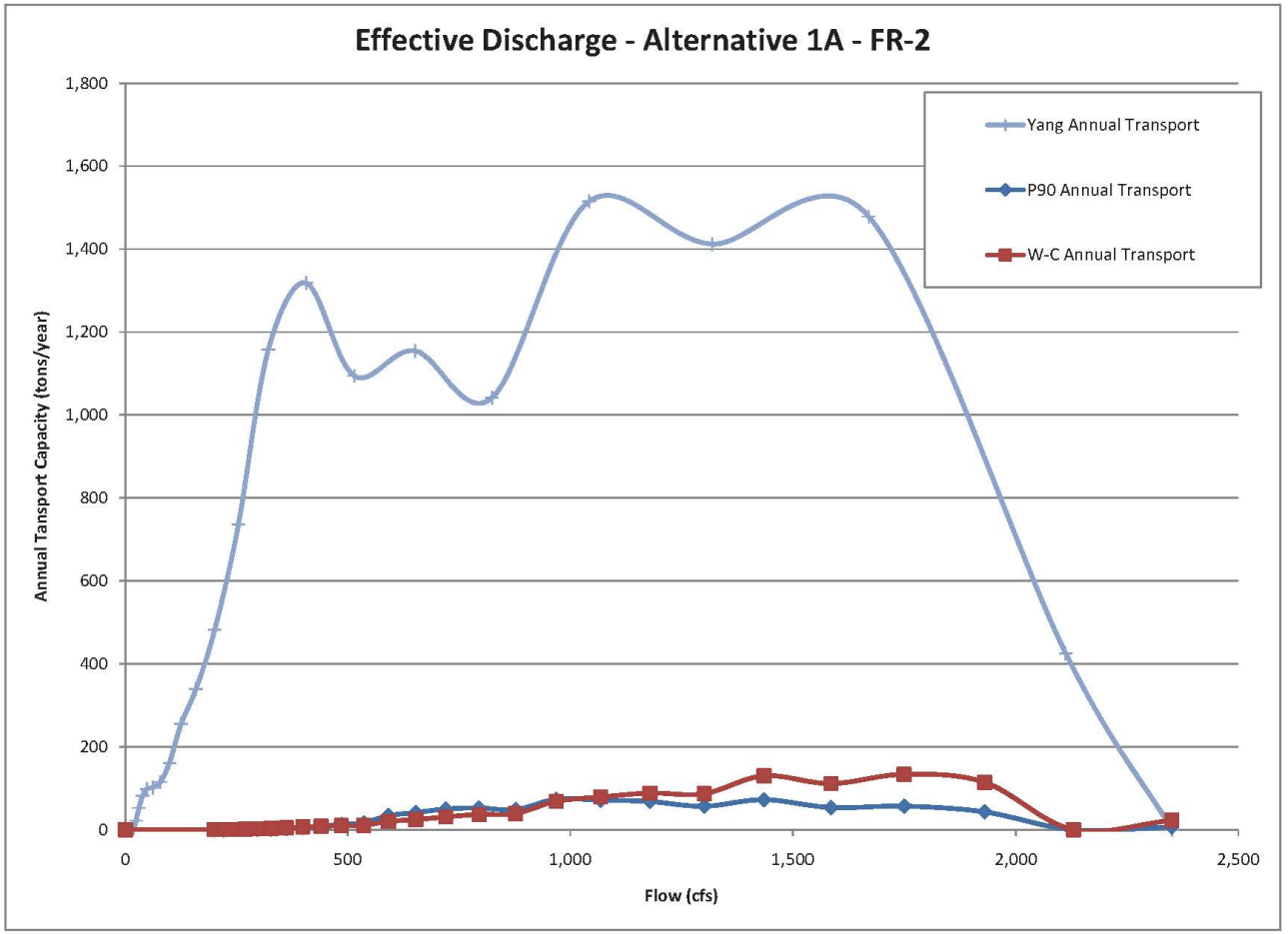


Figure H-9.26
Alternative 8A
FR-2: Fraser River near Tabernash

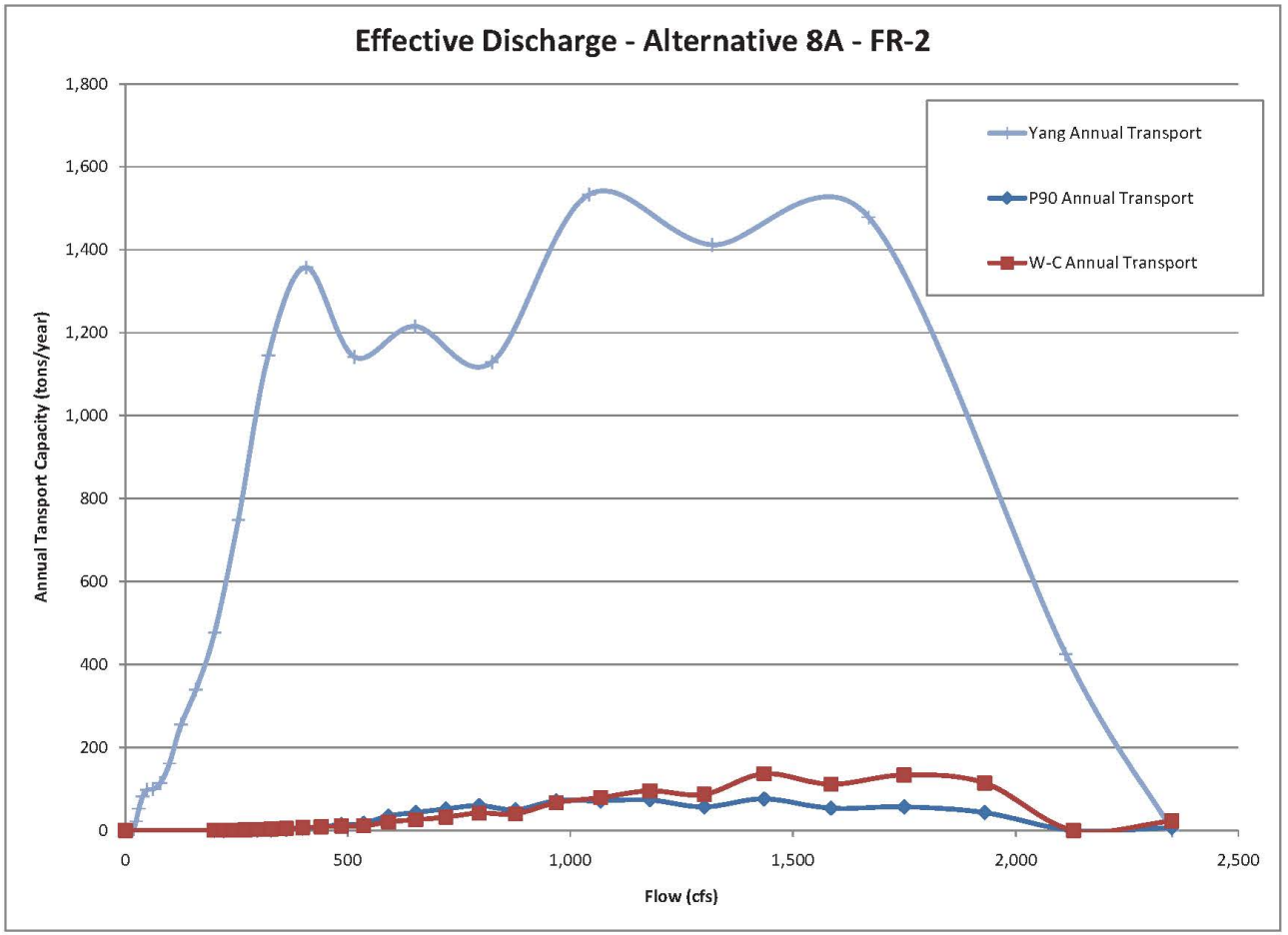


Figure H-9.27
Current Conditions
FR-3: St. Louis Creek

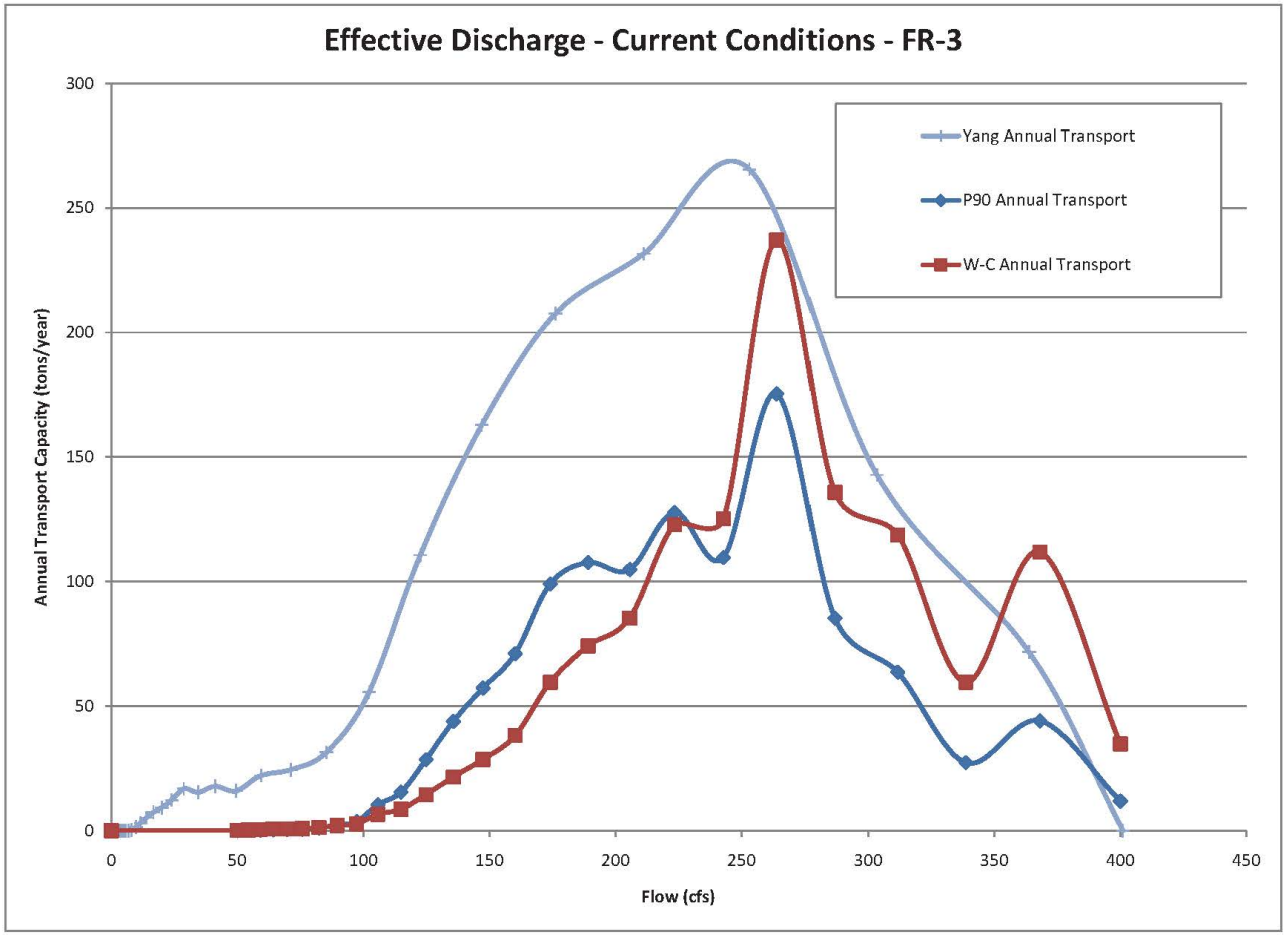


Figure H-9.28
Full Use
FR-3: St. Louis Creek

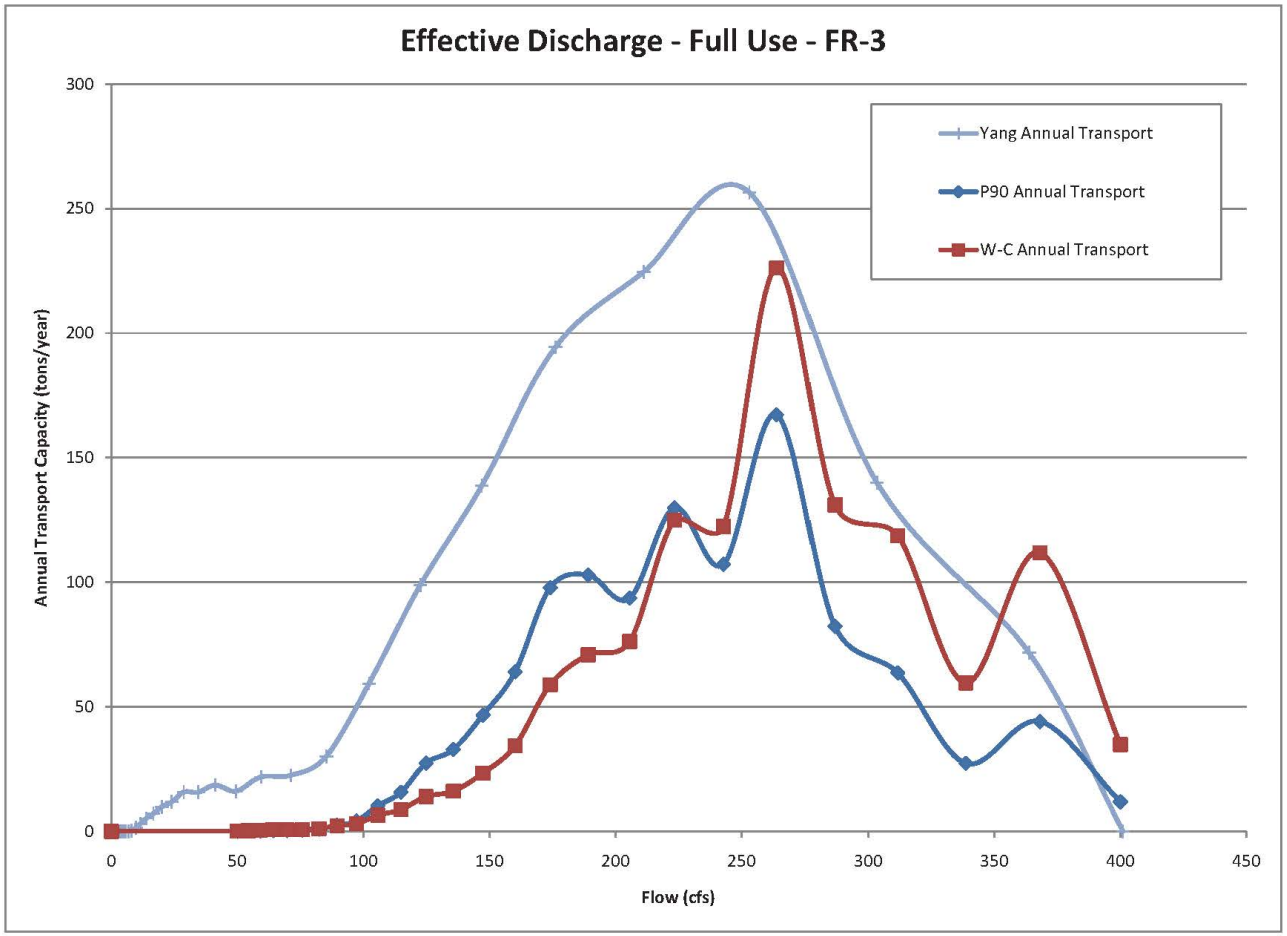


Figure H-9.29
No Action
FR-3: St. Louis Creek

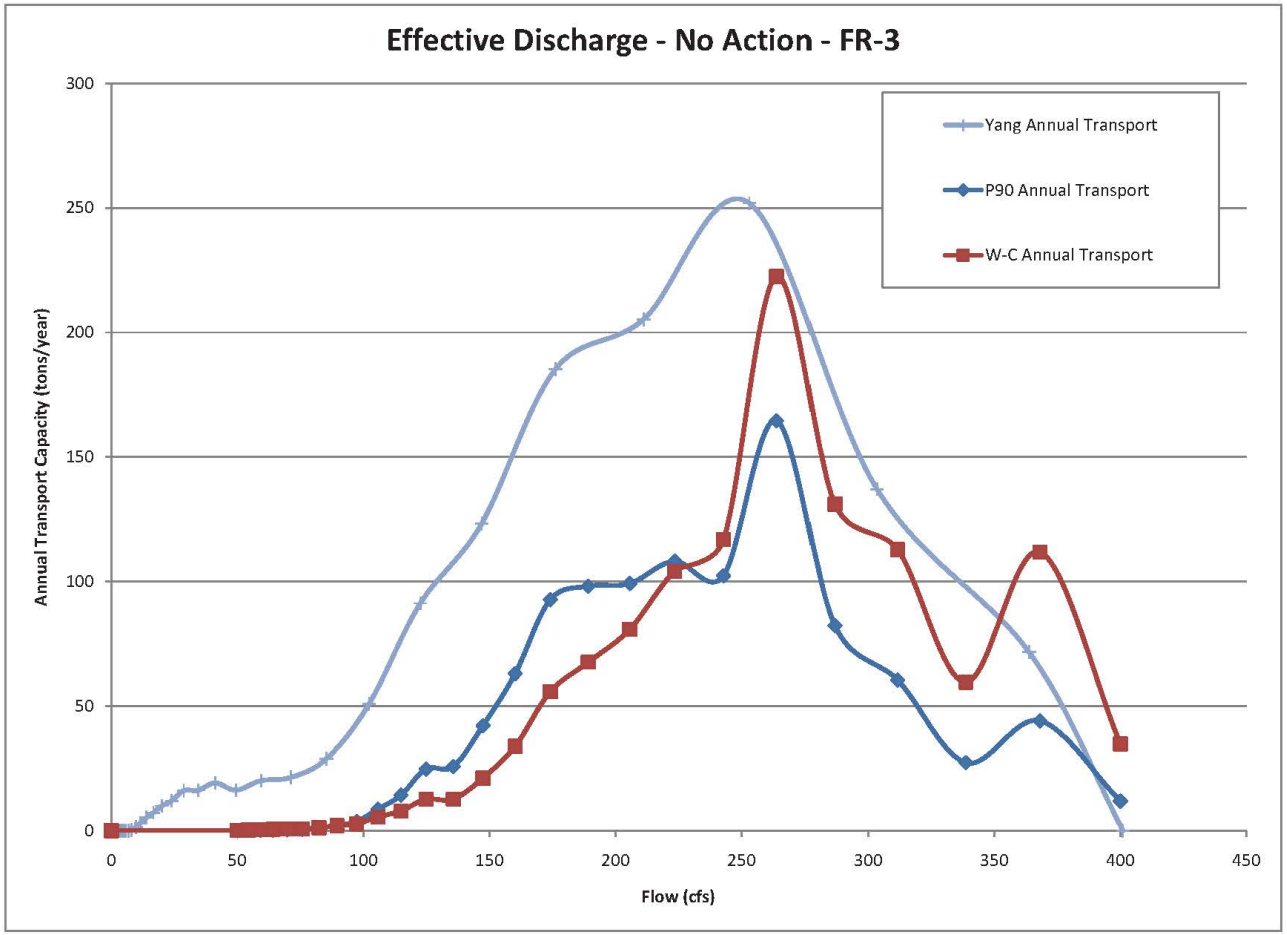


Figure H-9.30
Alternative 1A
FR-3: St. Louis Creek

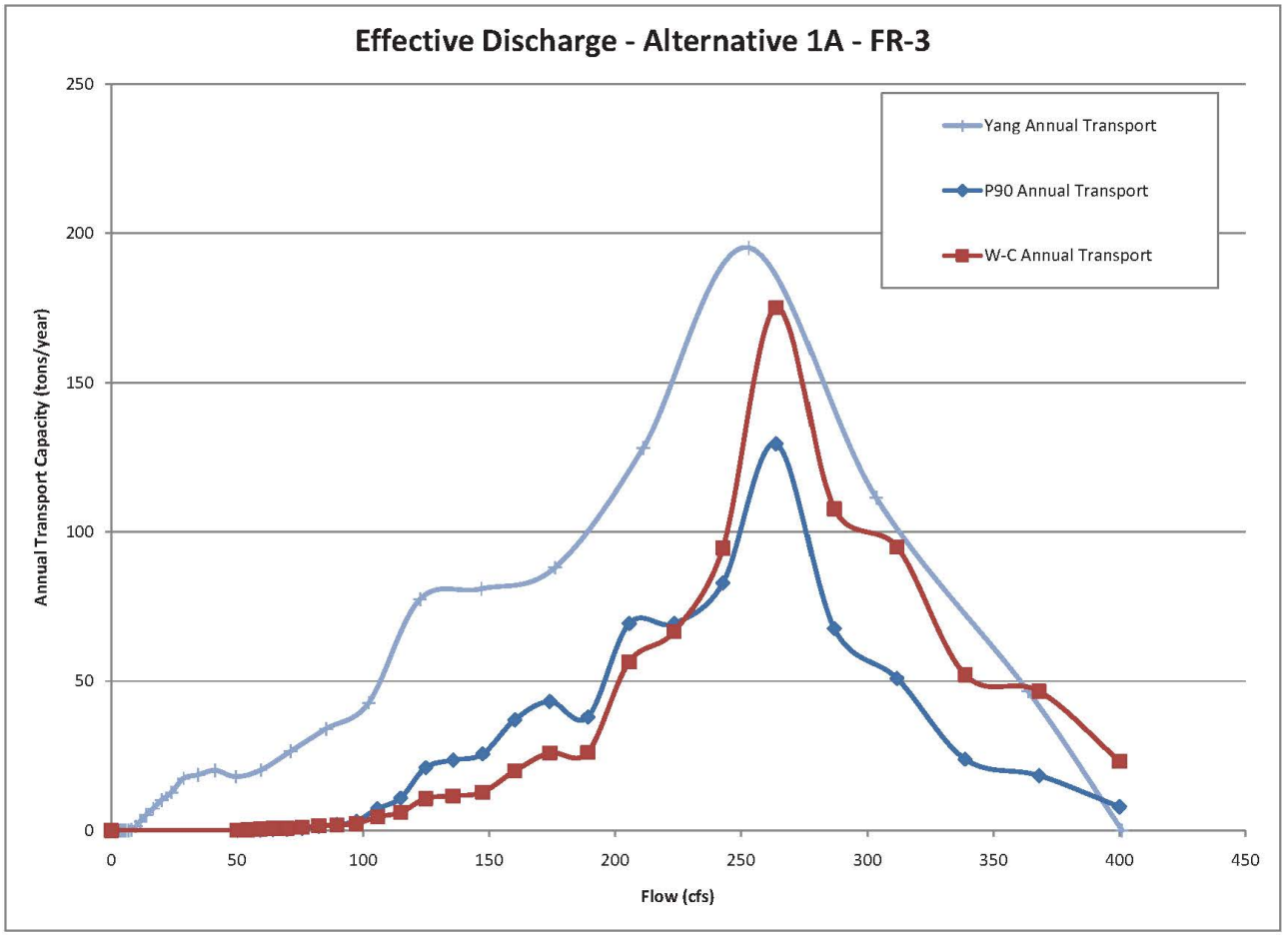


Figure H-9.31
Alternative 8A
FR-3: St. Louis Creek

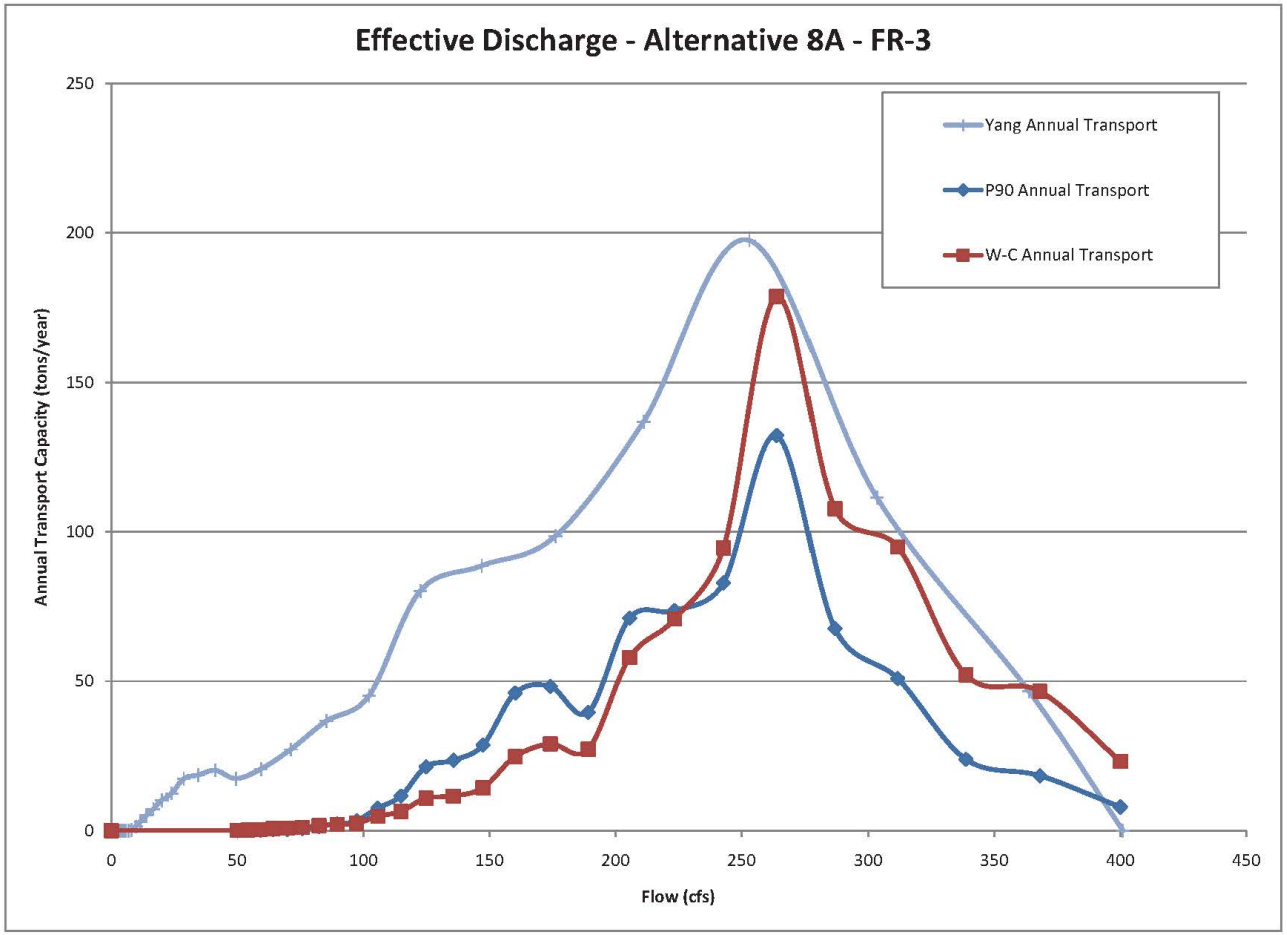


Figure H-9.32
Current Conditions
FR-4: Ranch Creek

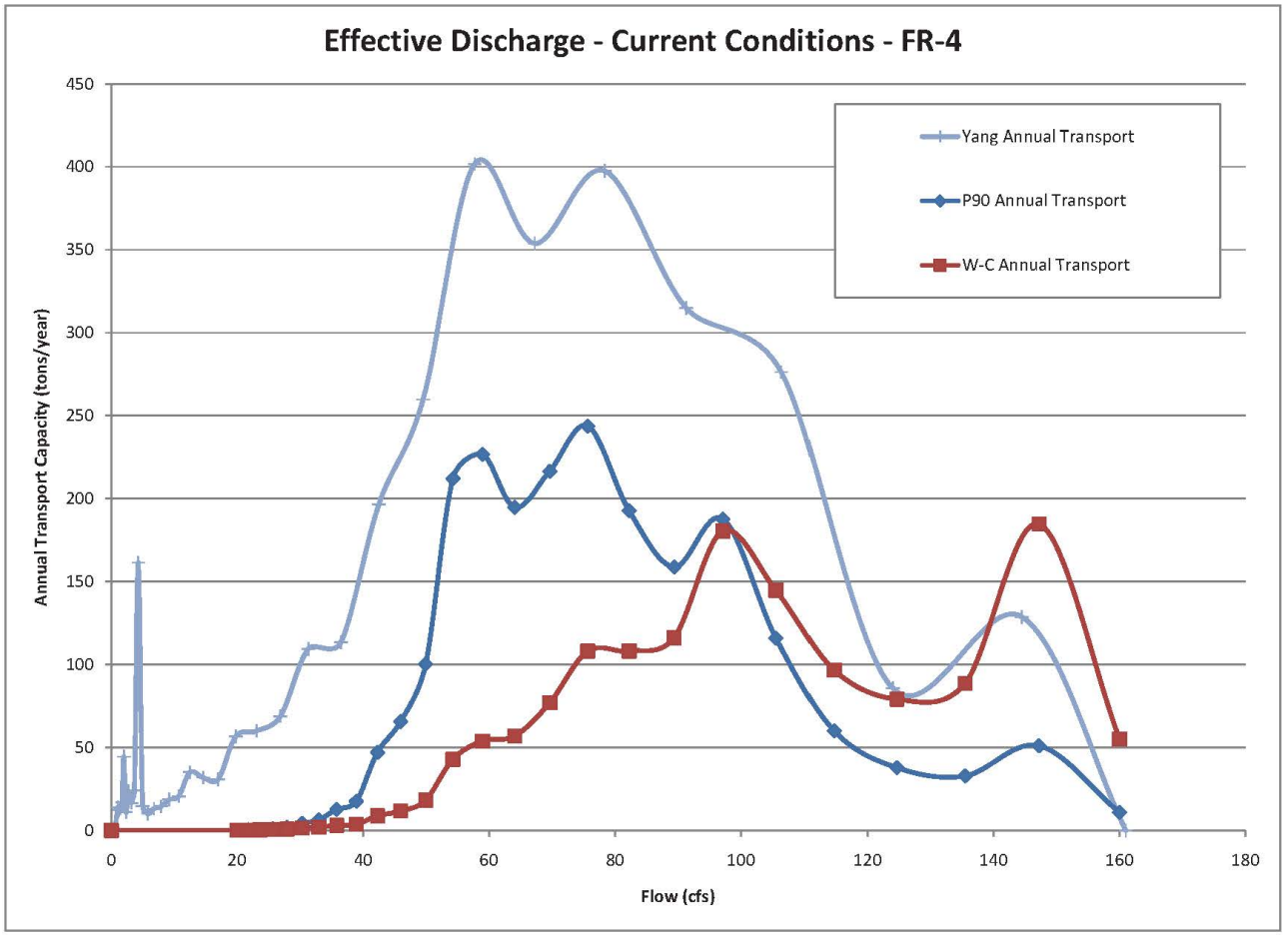


Figure H-9.33
Full Use
FR-4: Ranch Creek

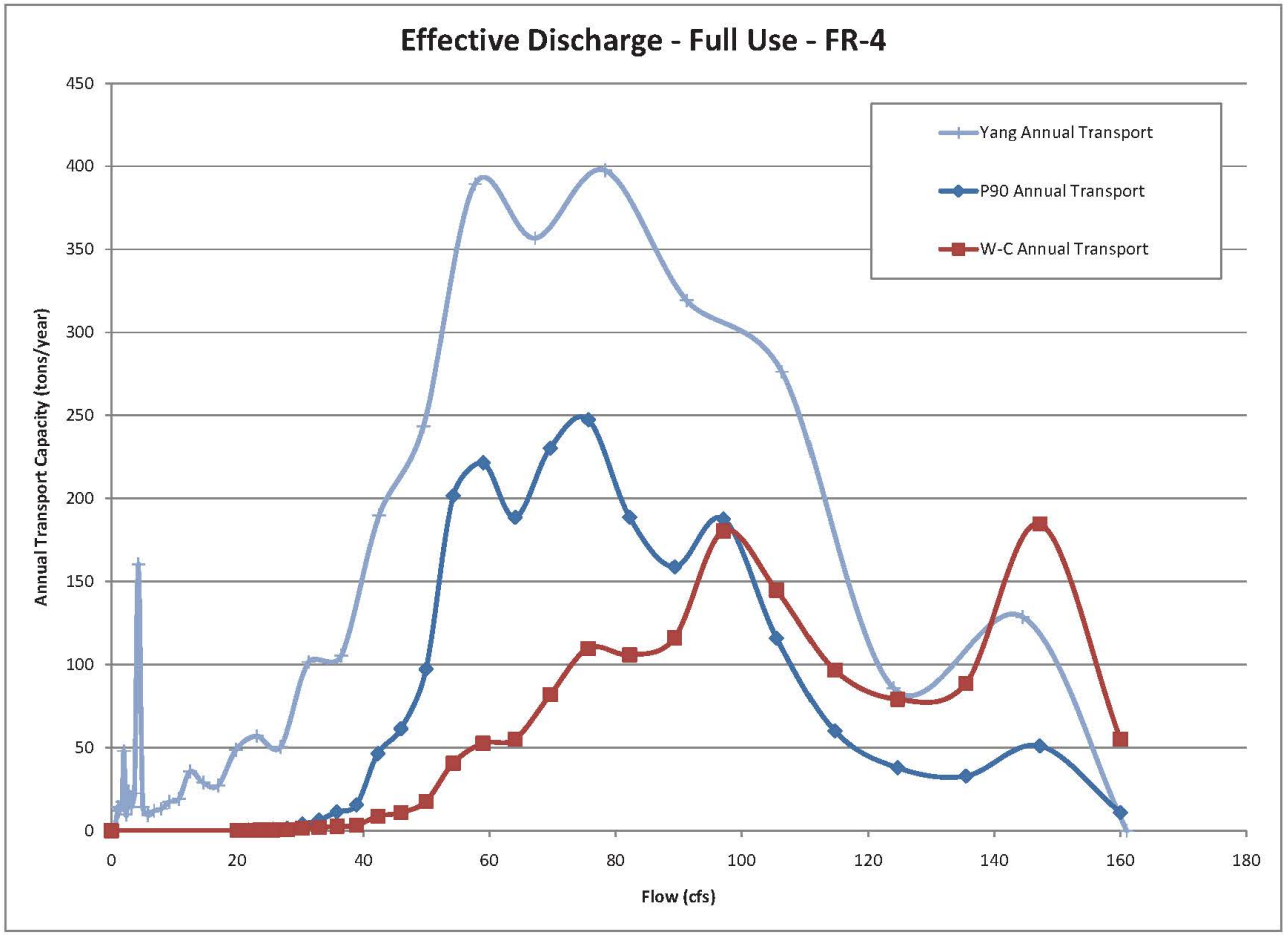


Figure H-9.34
No Action
FR-4: Ranch Creek

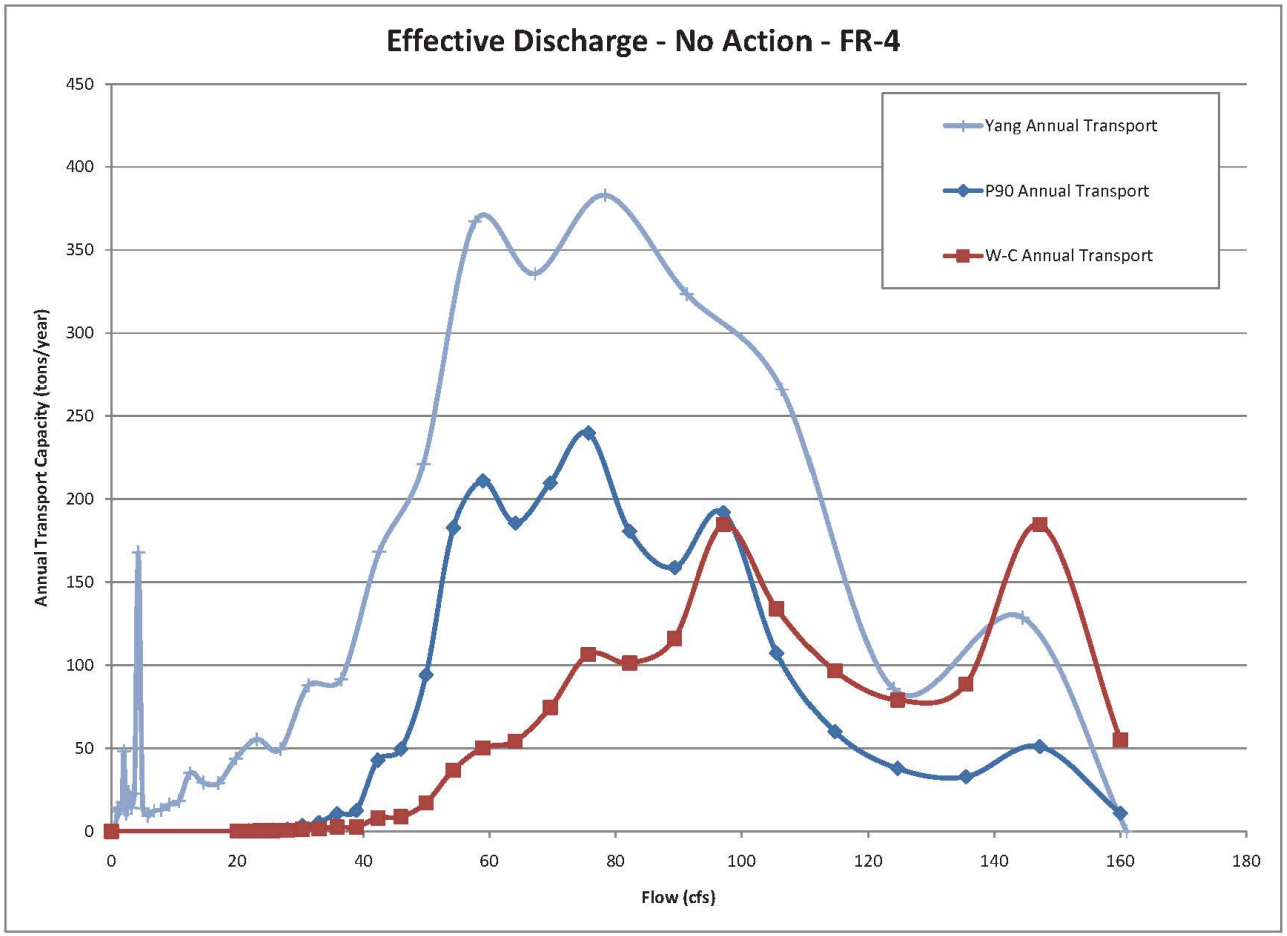


Figure H-9.35
Alternative 1A
FR-4: Ranch Creek

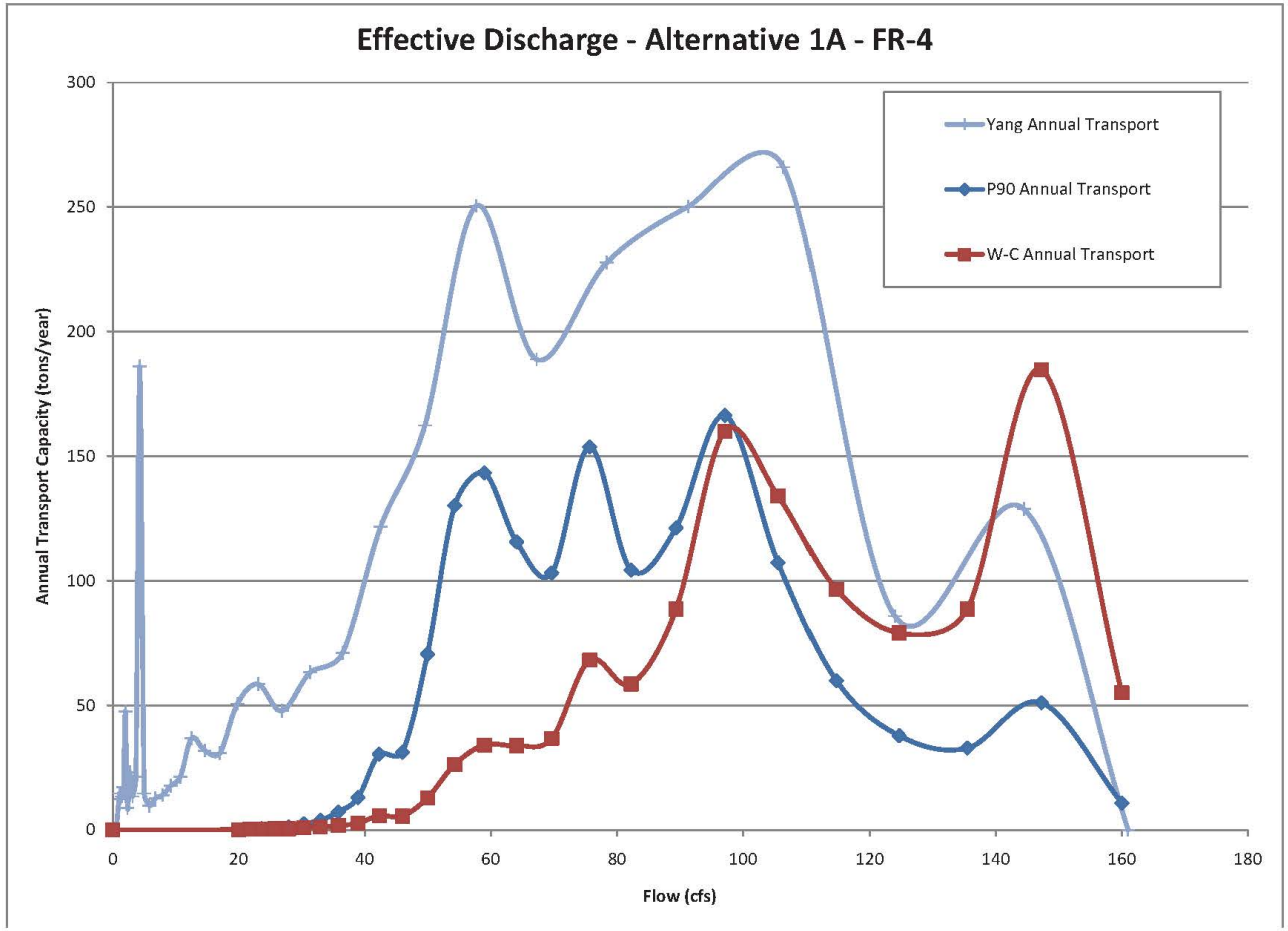


Figure H-9.36
Alternative 8A
FR-4: Ranch Creek

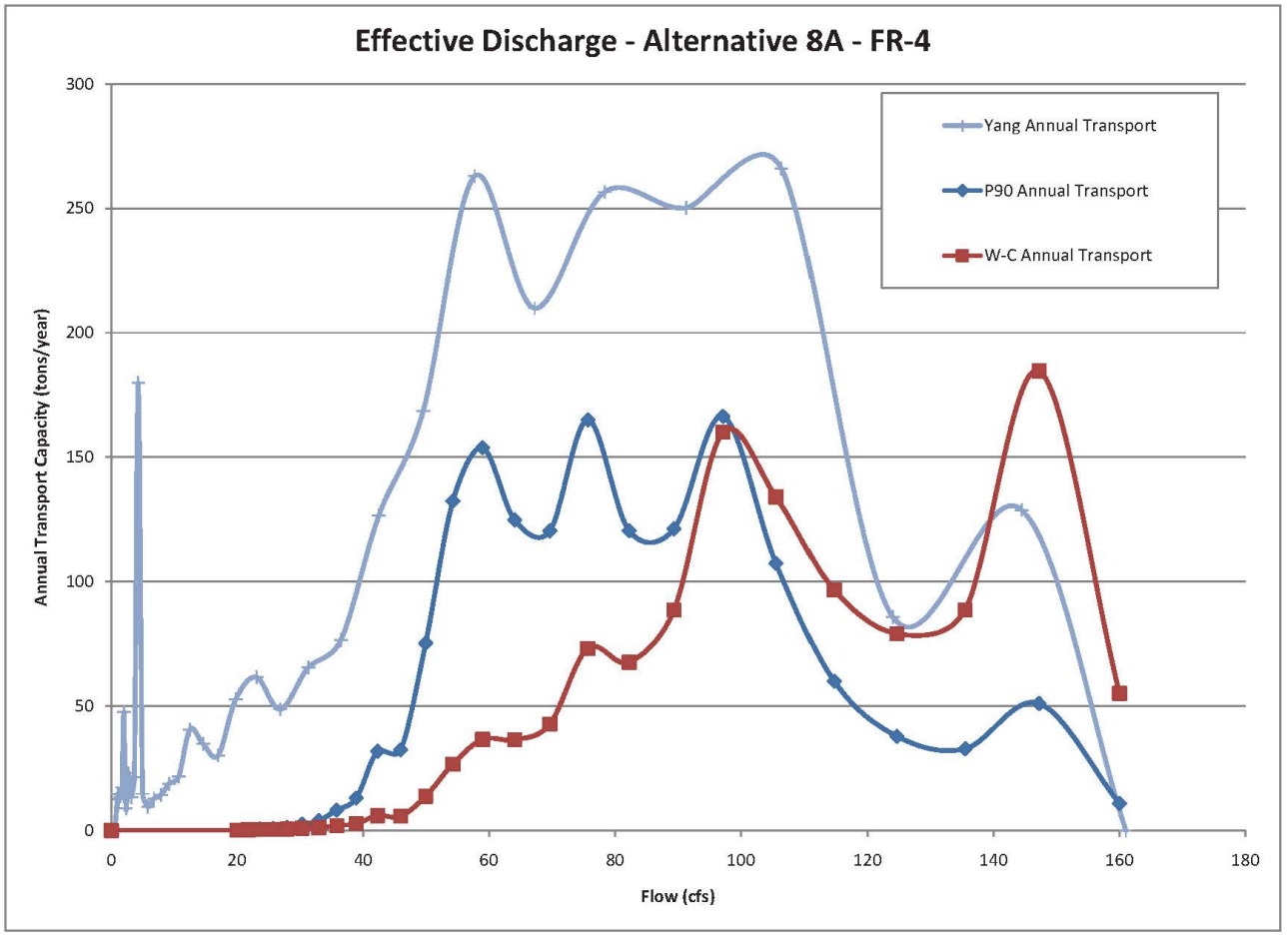


Figure H-9.37
Current Conditions
FR-5: Fraser River Downstream of Denver Water's Diversion

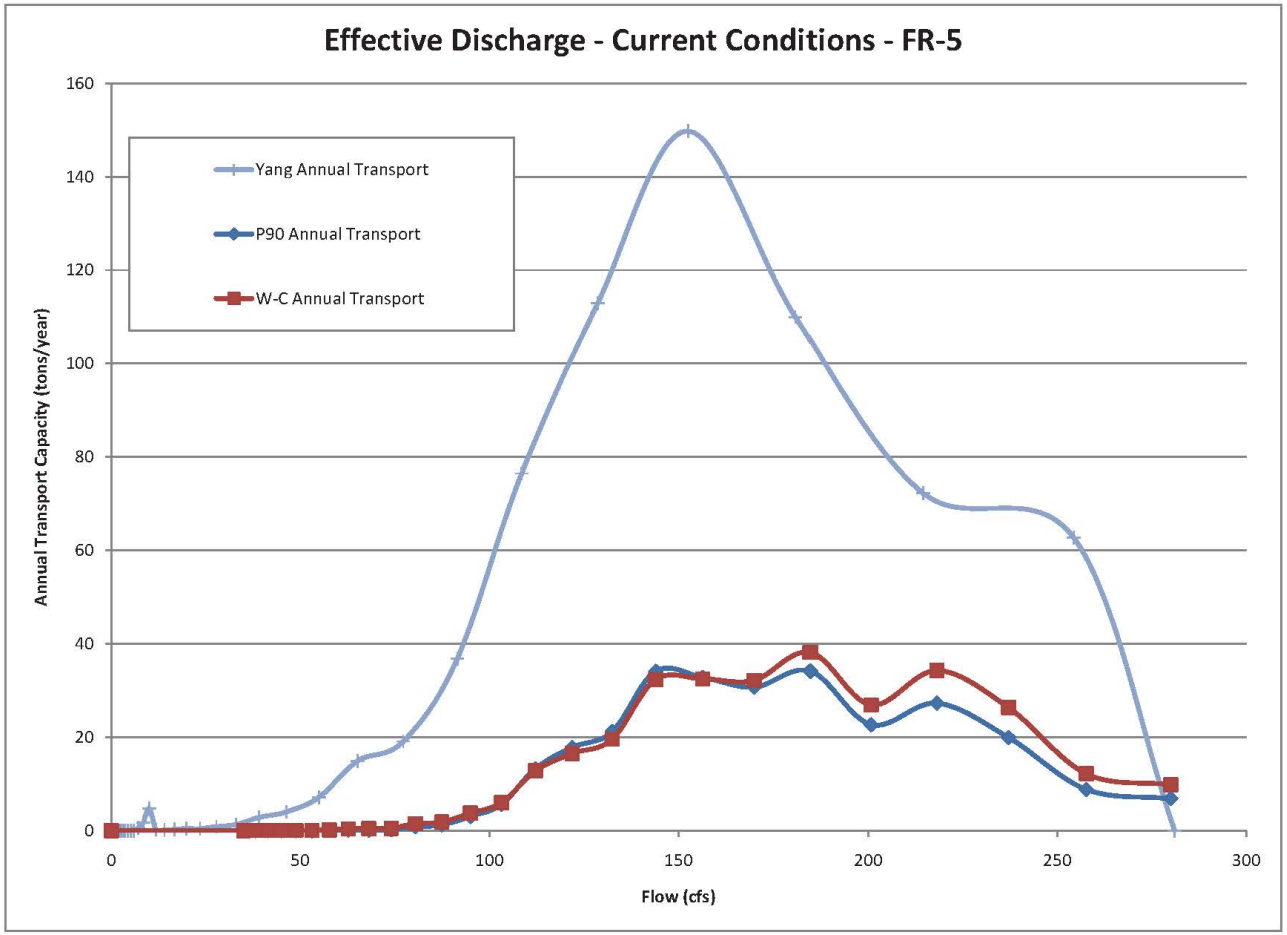


Figure H-9.38
Full Use
FR-5: Fraser River Downstream of Denver Water's Diversion

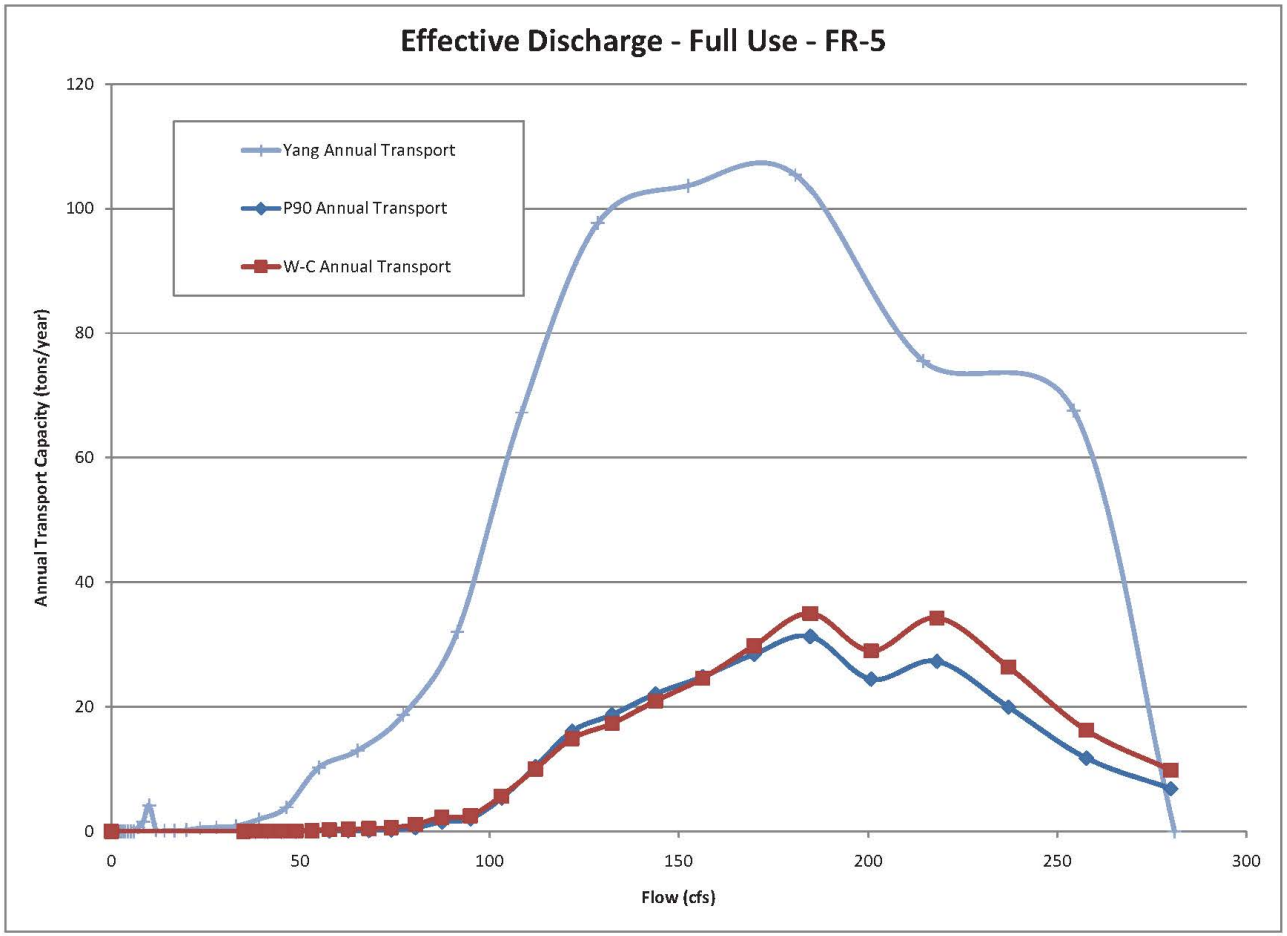


Figure H-9.39
No Action
FR-5: Fraser River Downstream of Denver Water's Diversion

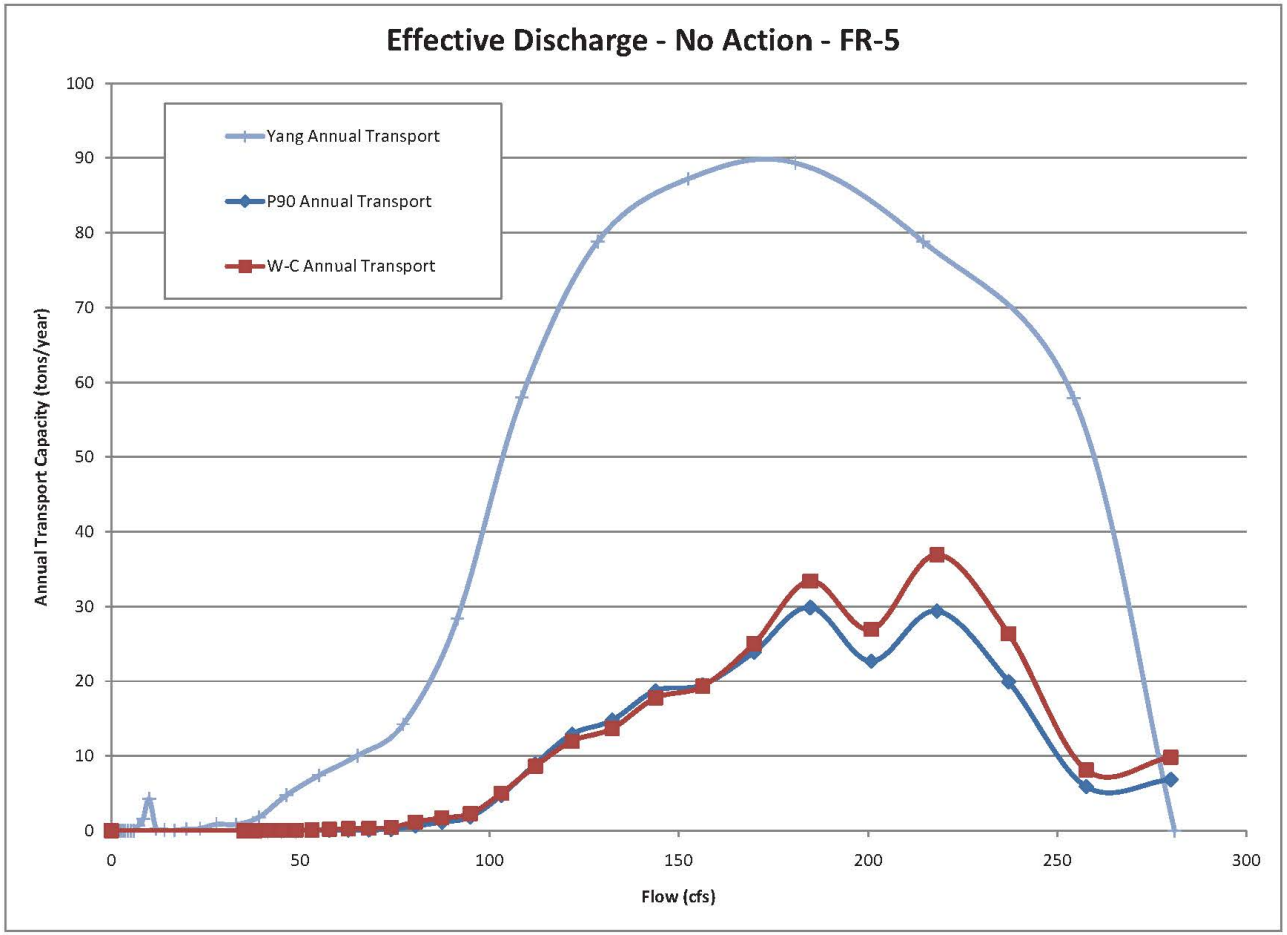


Figure H-9.40
Alternative 1A
FR-5: Fraser River Downstream of Denver Water's Diversion

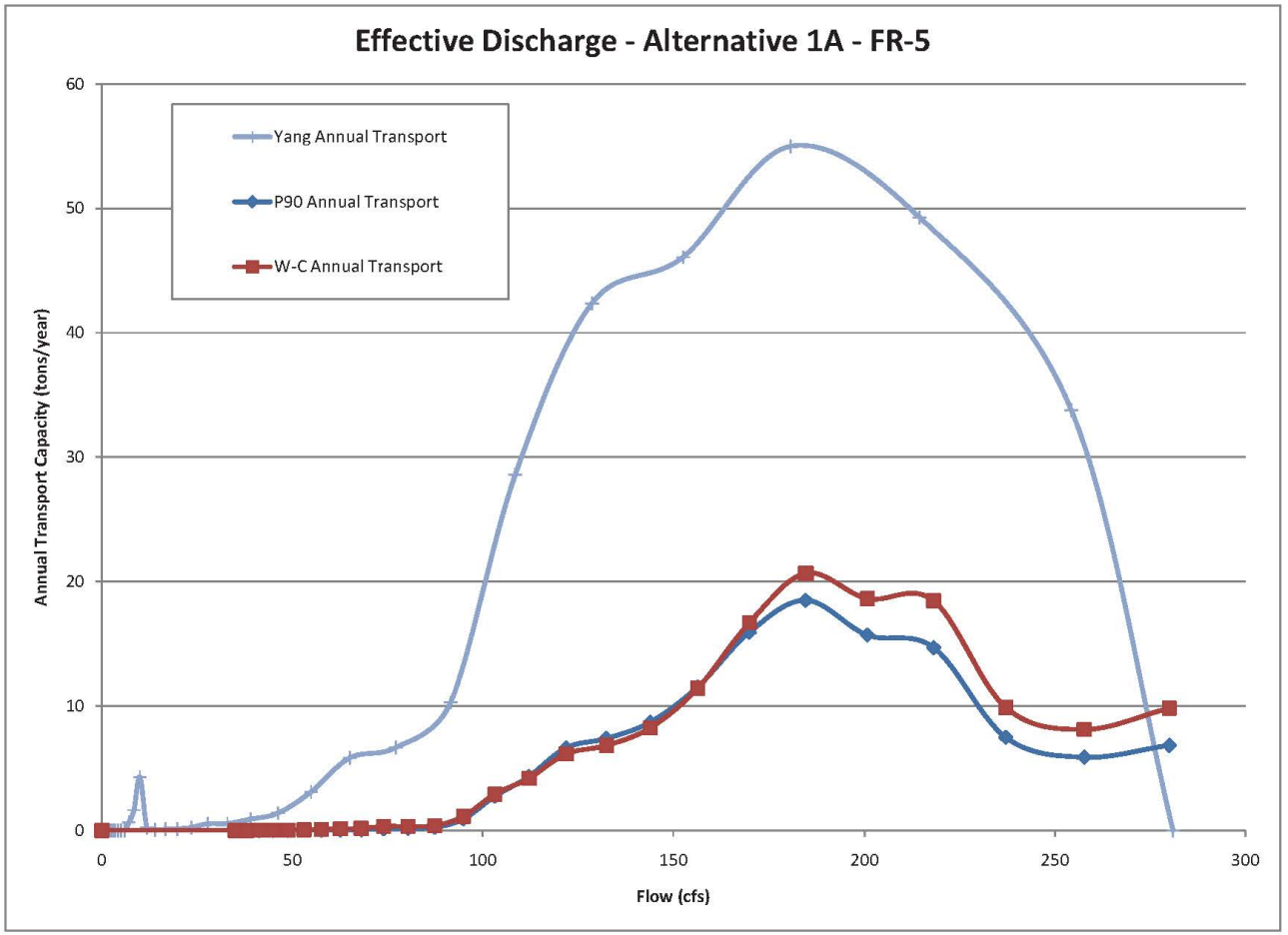


Figure H-9.41
Alternative 8A
FR-5: Fraser River Downstream of Denver Water's Diversion

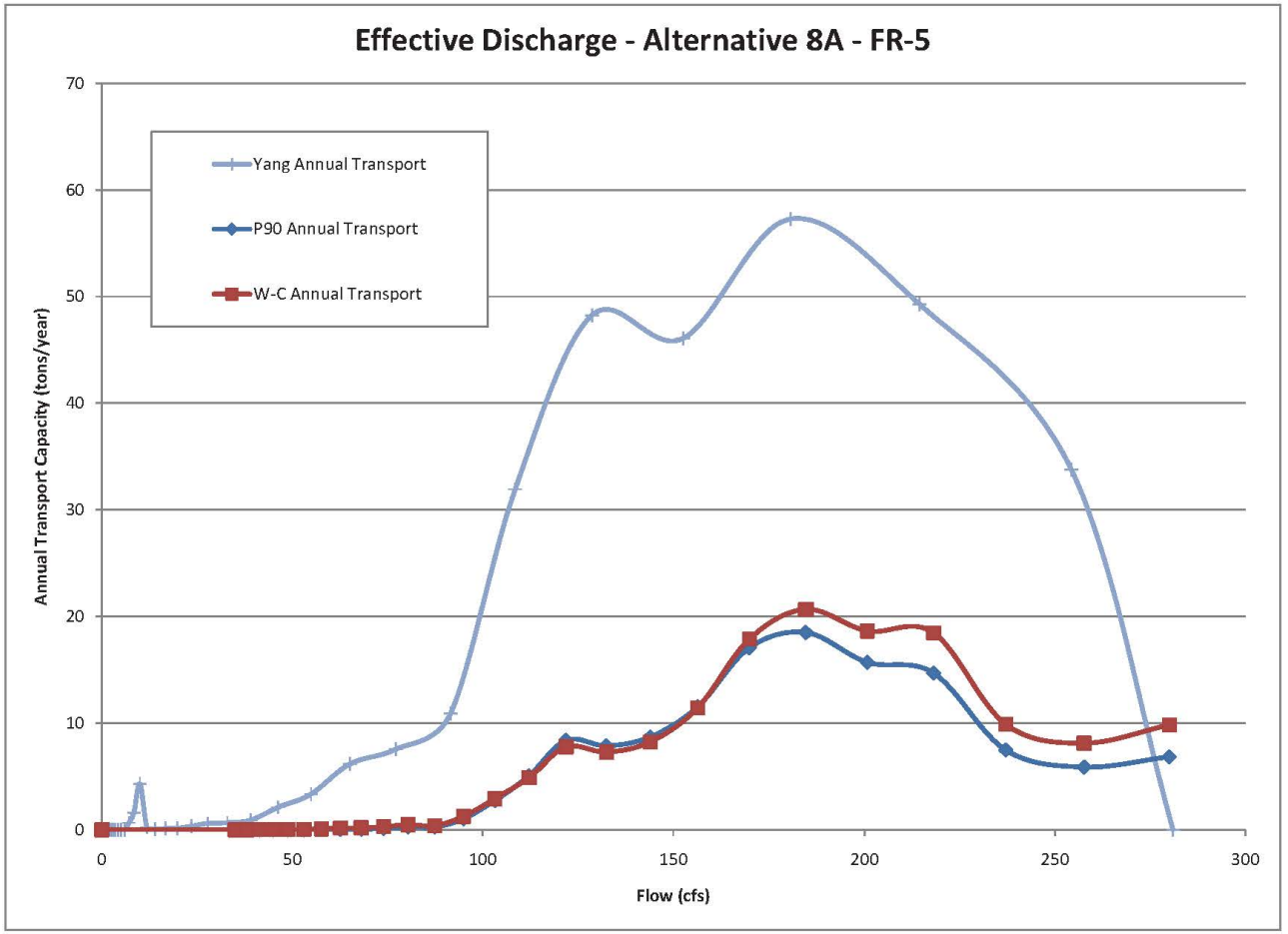


Figure H-9.42
Current Conditions
FR-6: Jim Creek

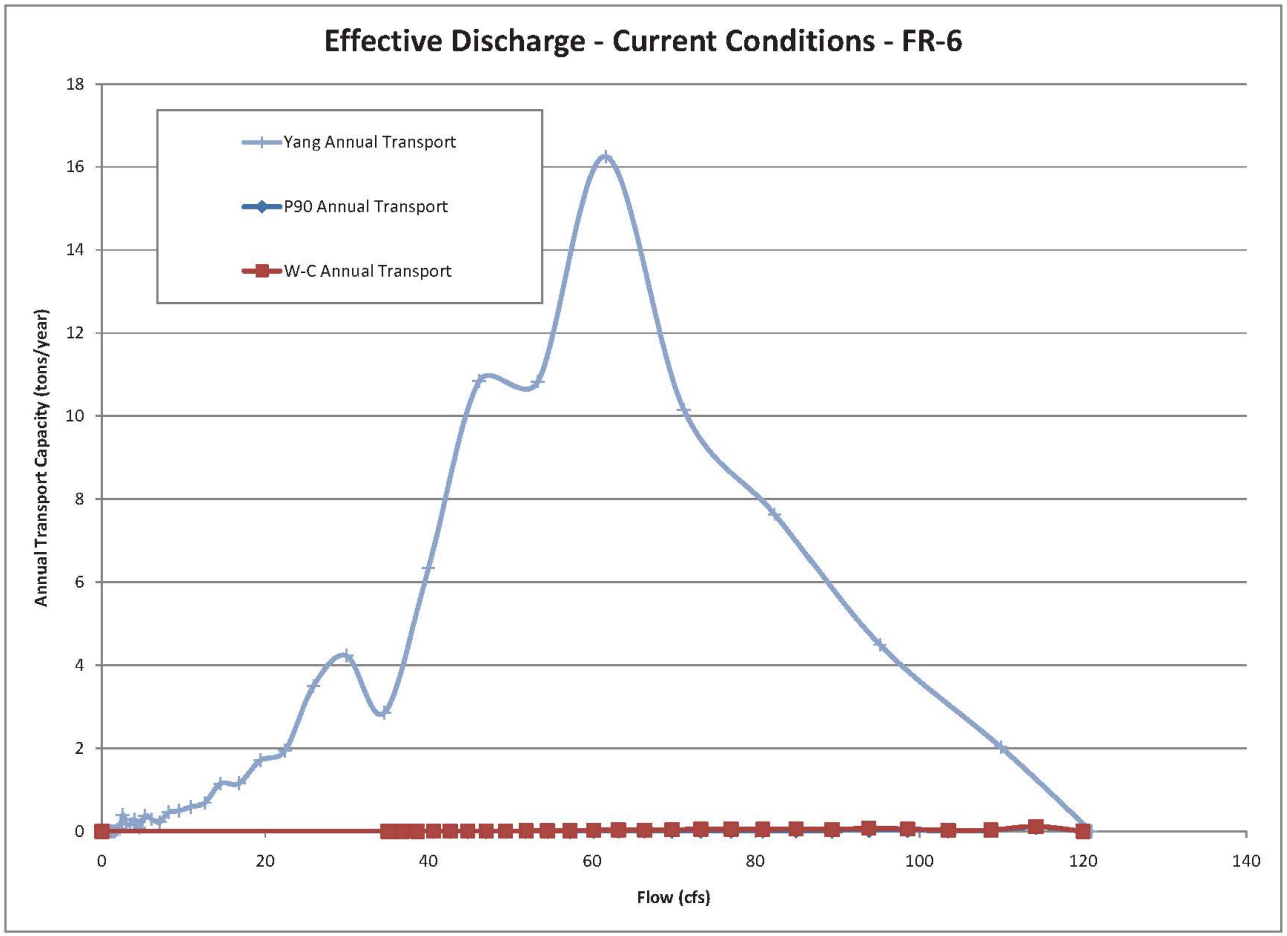


Figure H-9.43
Full Use
FR-6: Jim Creek

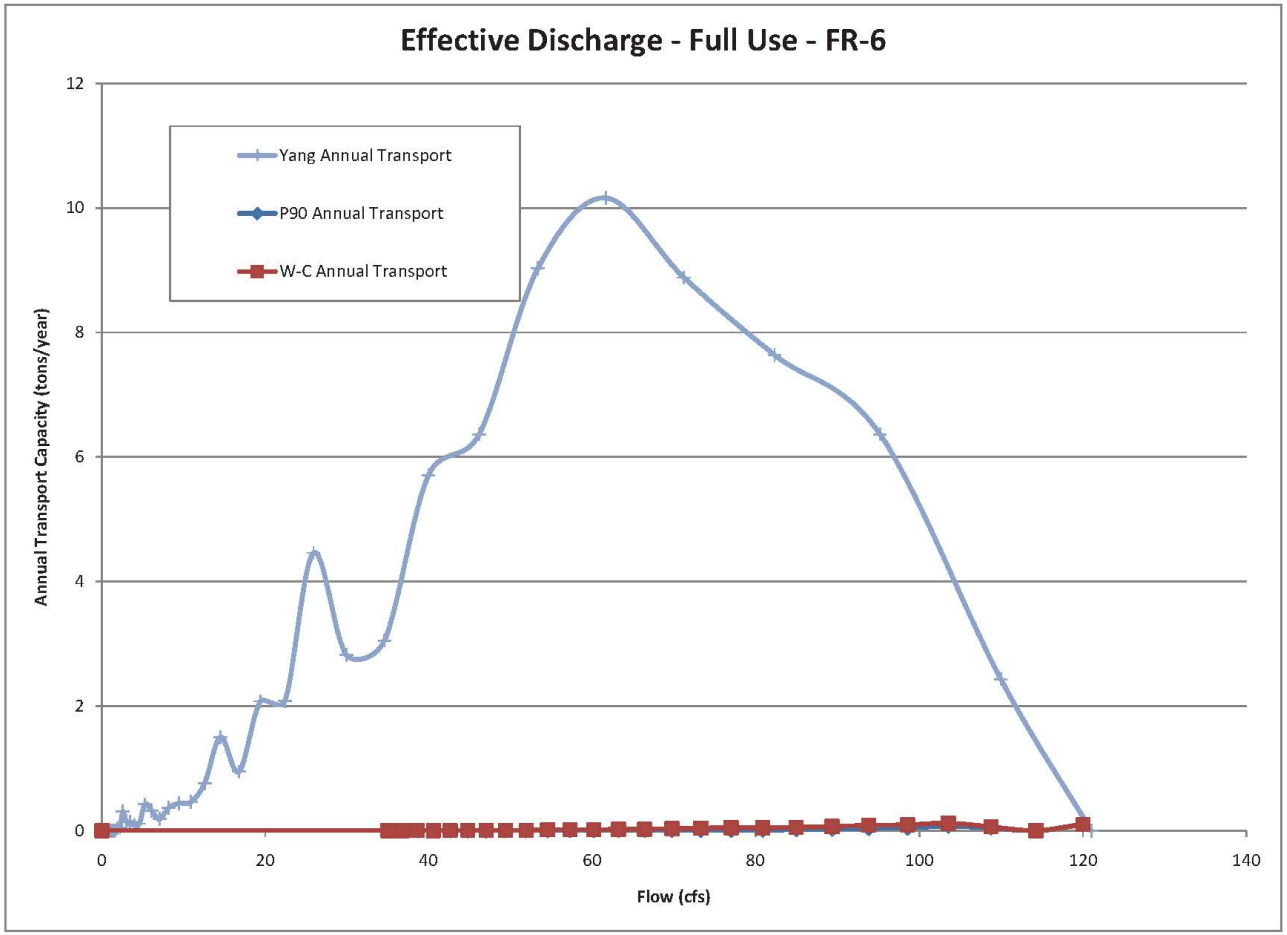


Figure H-9.44
No Action
FR-6: Jim Creek

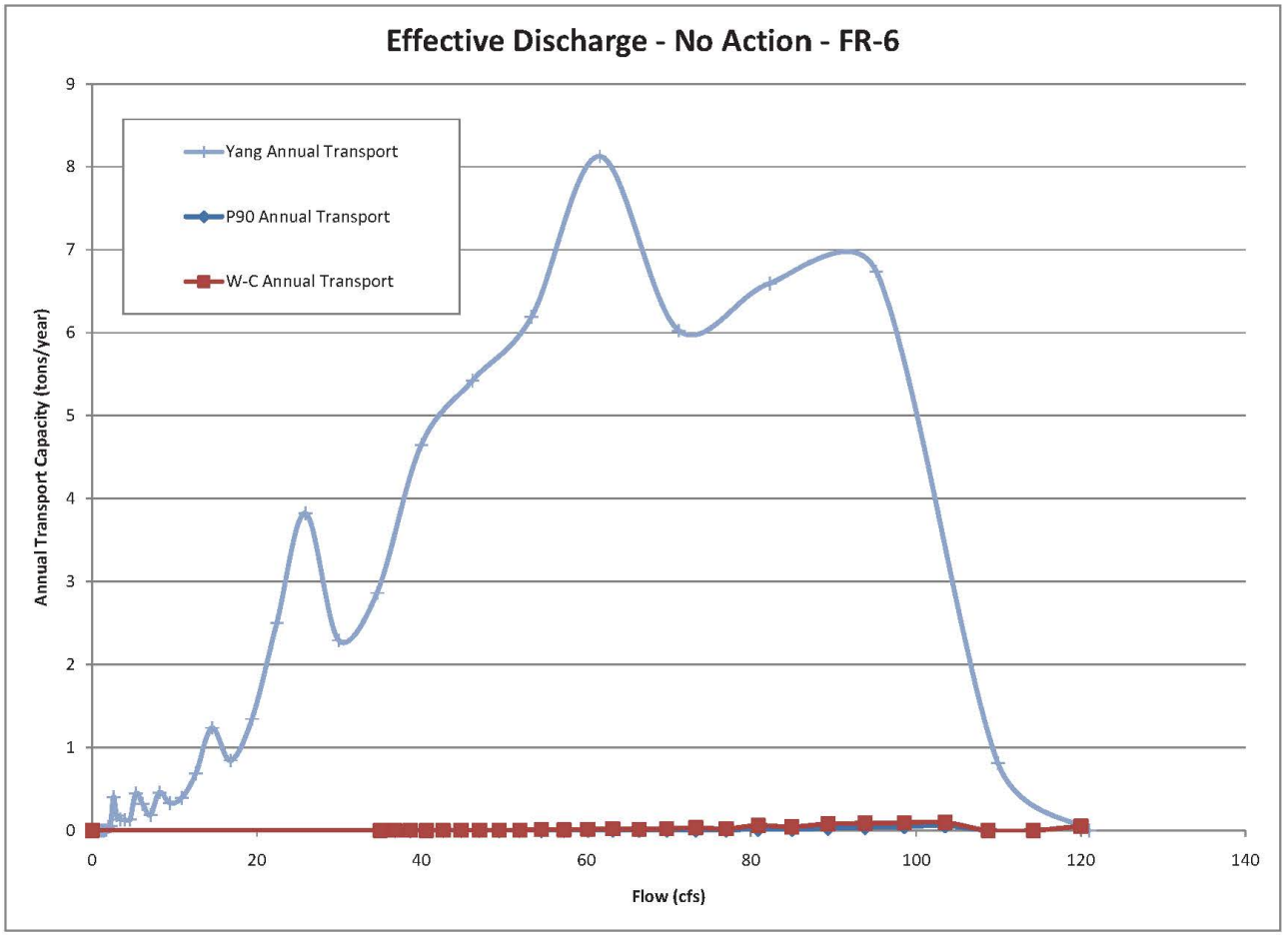


Figure H-9.45
Alternative 1A
FR-6: Jim Creek

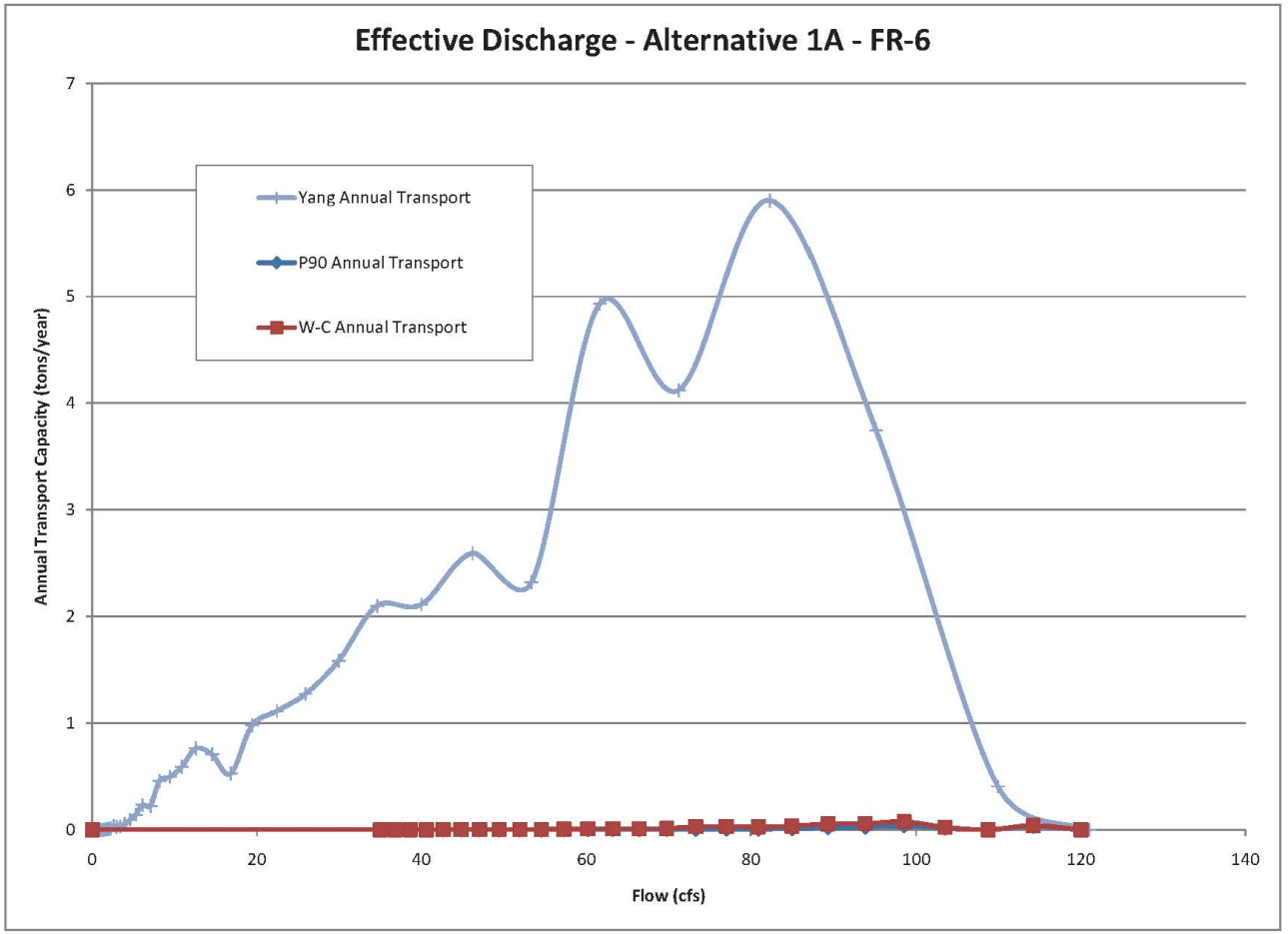


Figure H-9.46
Alternative 8A
FR-6: Jim Creek

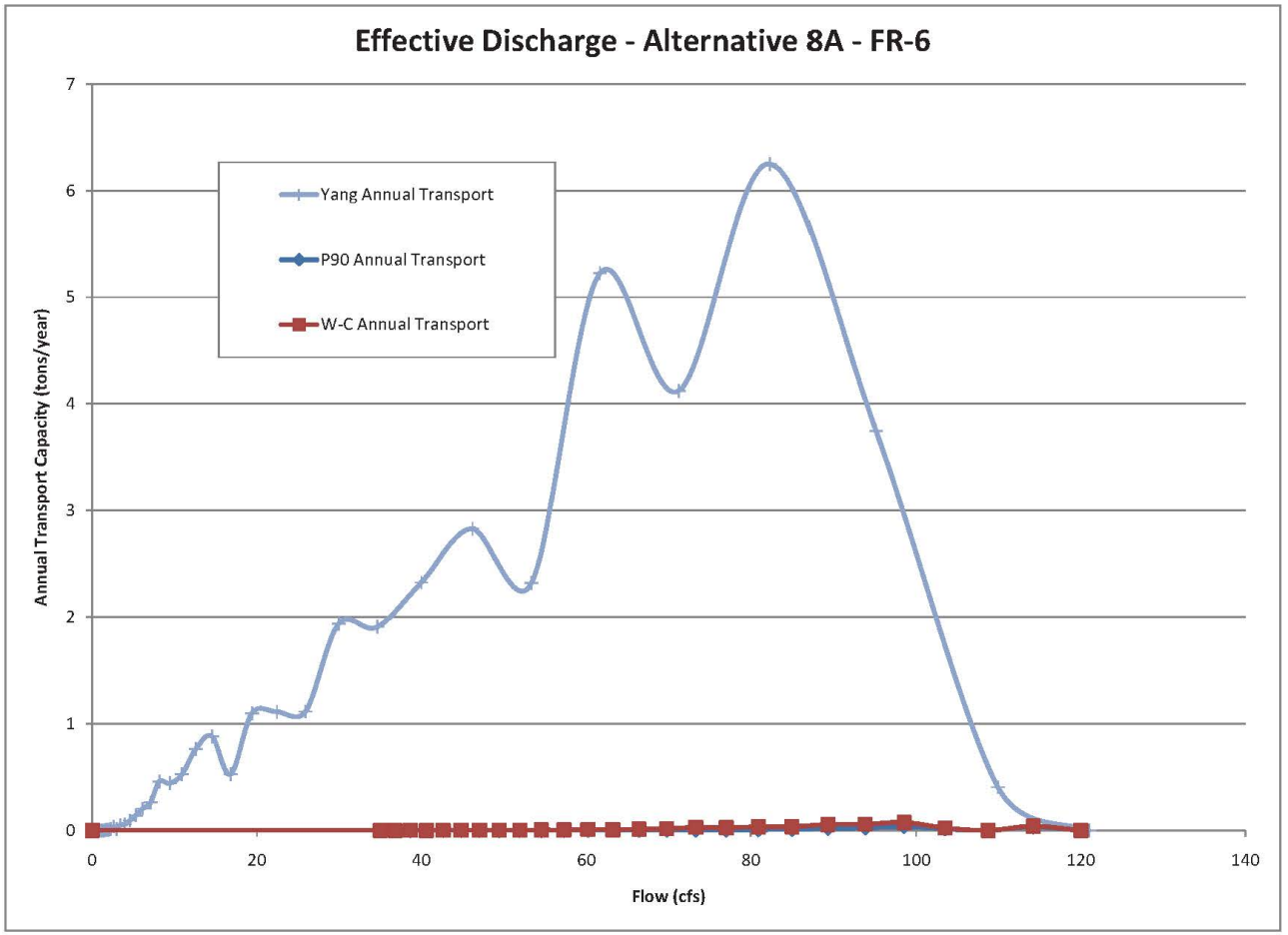


Figure H-9.47
Current Conditions
FR-7: Vasquez Creek

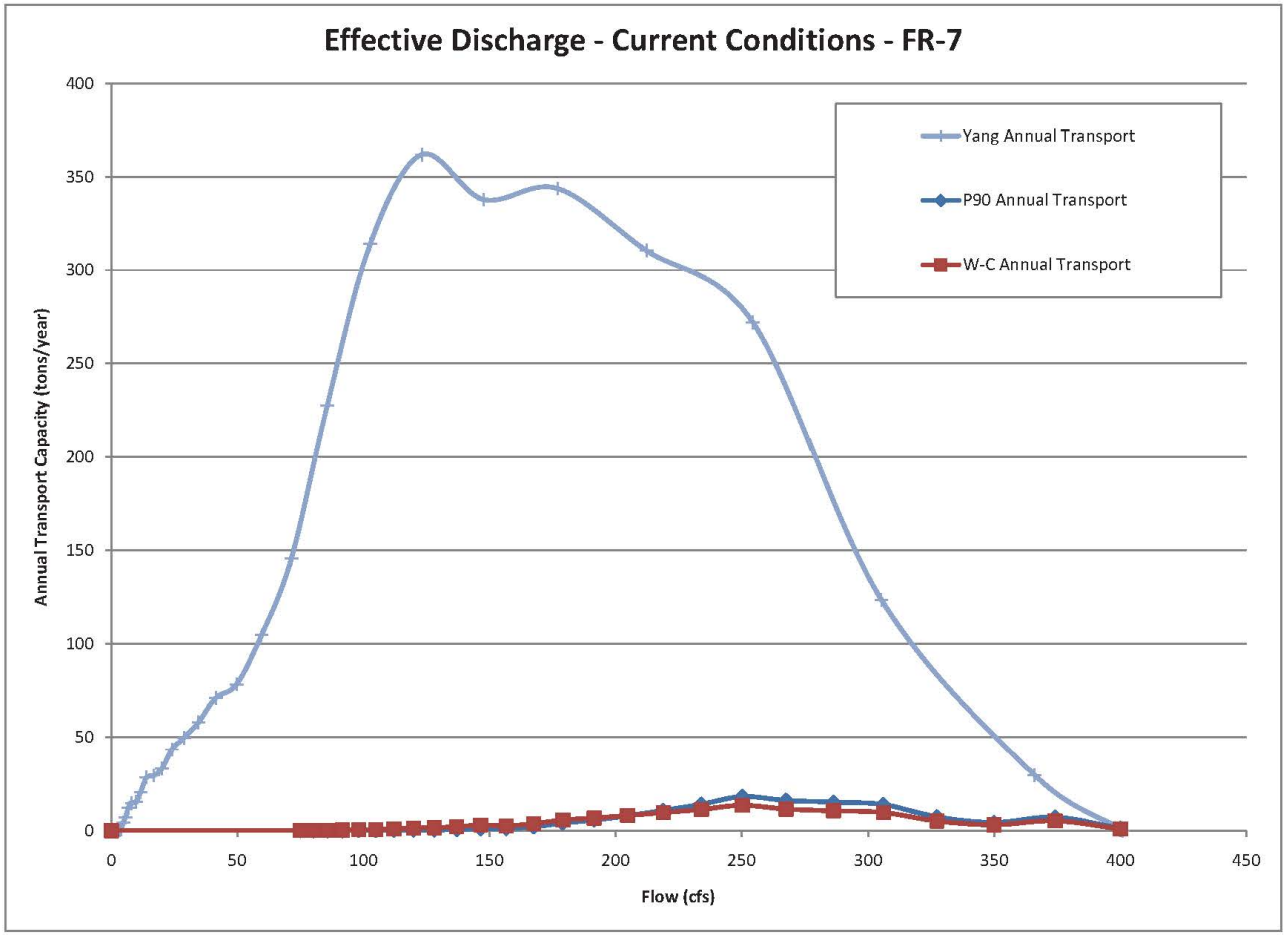


Figure H-9.48
Full Use
FR-7: Vasquez Creek

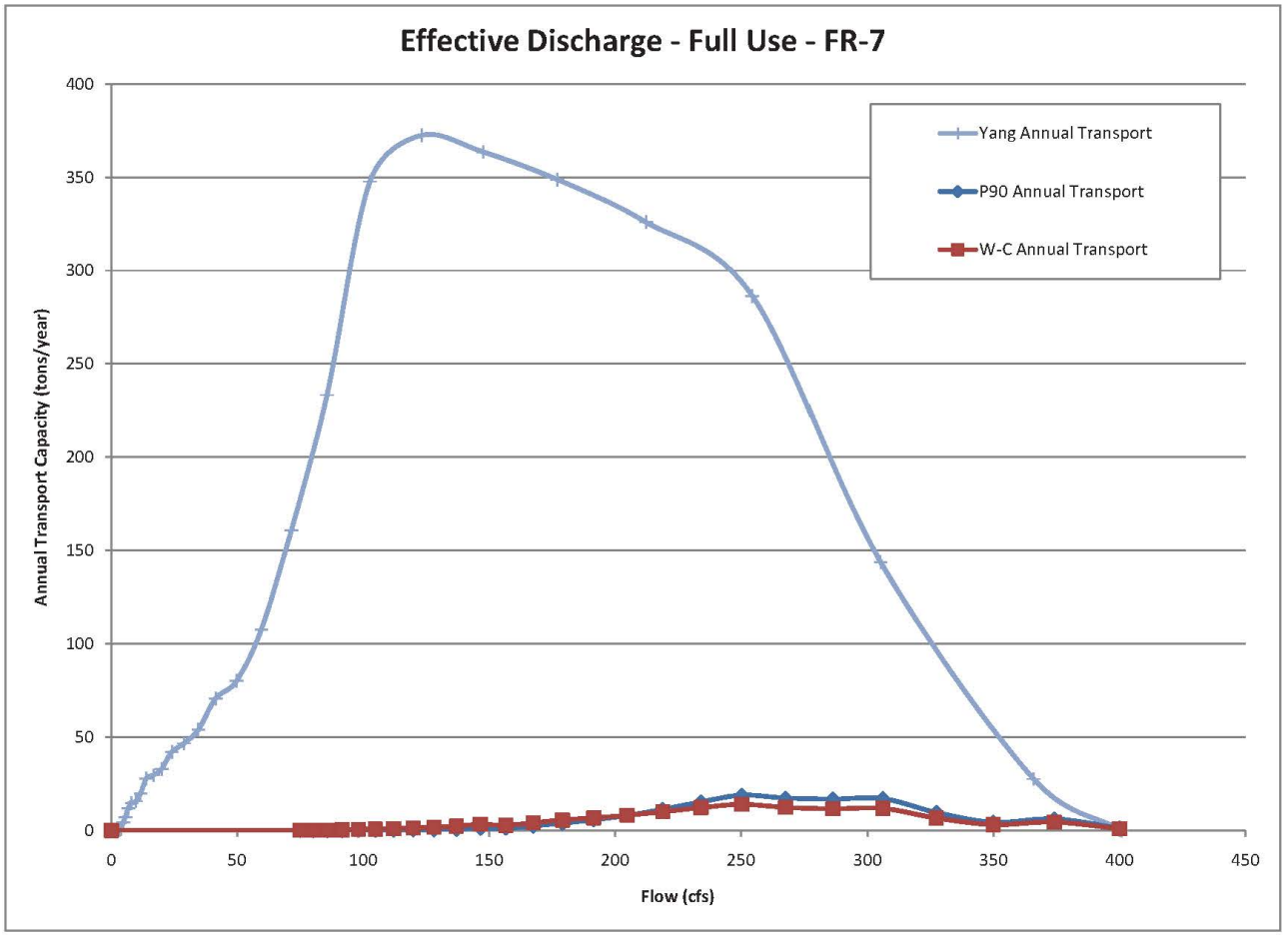


Figure H-9.49
No Action
FR-7: Vasquez Creek

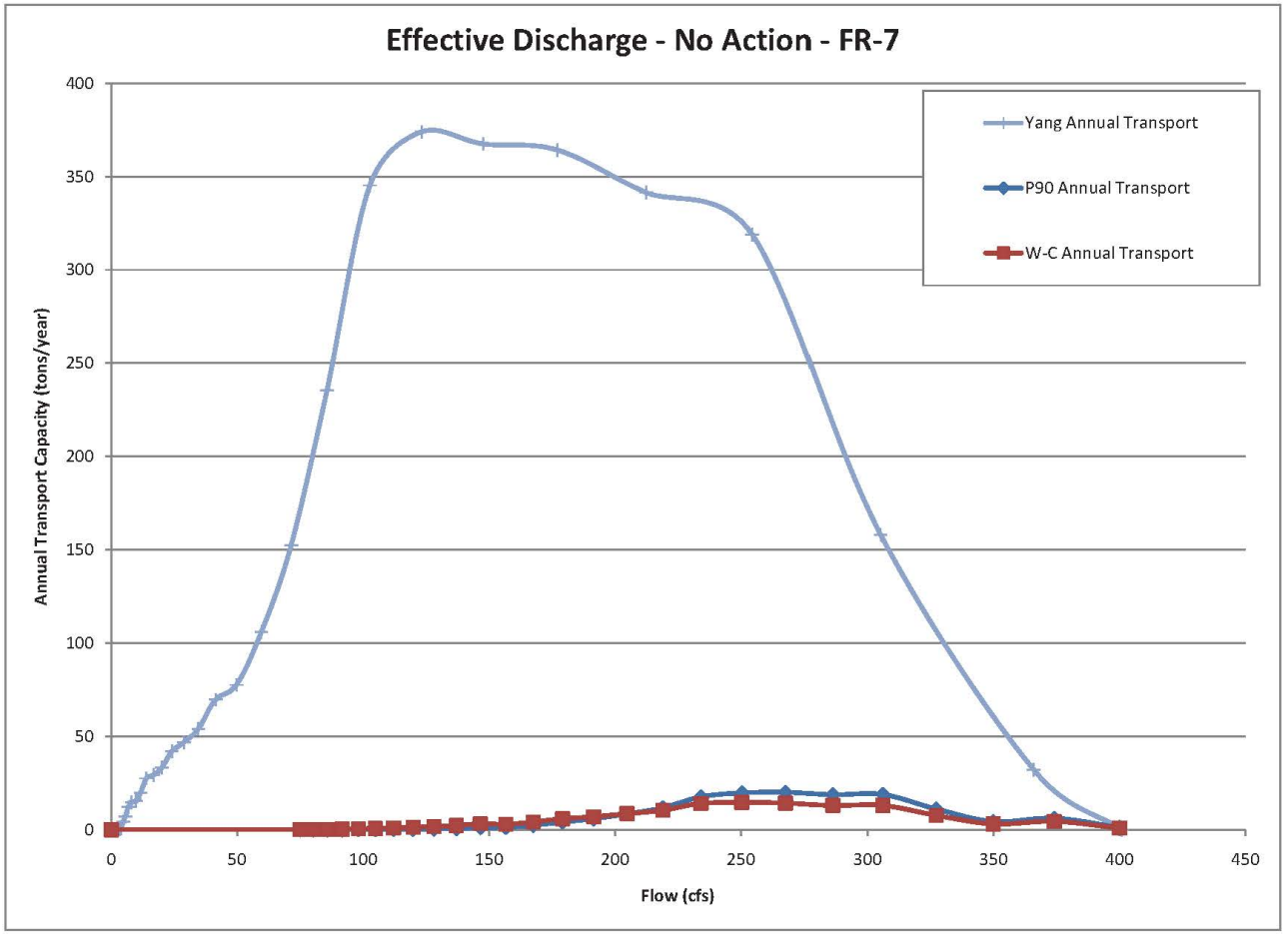


Figure H-9.50
Alternative 1A
FR-7: Vasquez Creek

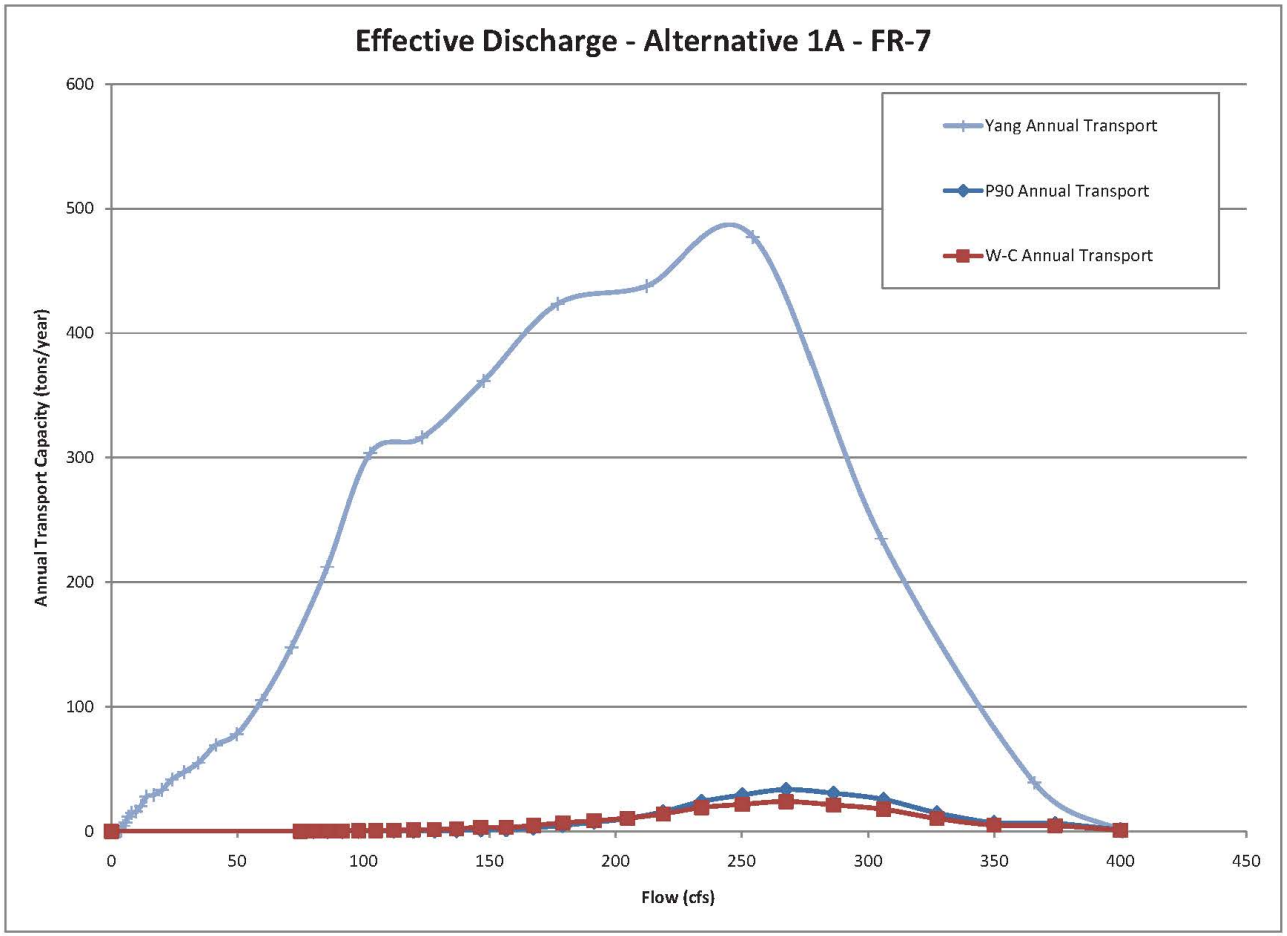


Figure H-9.51
Alternative 8A
FR-7: Vasquez Creek

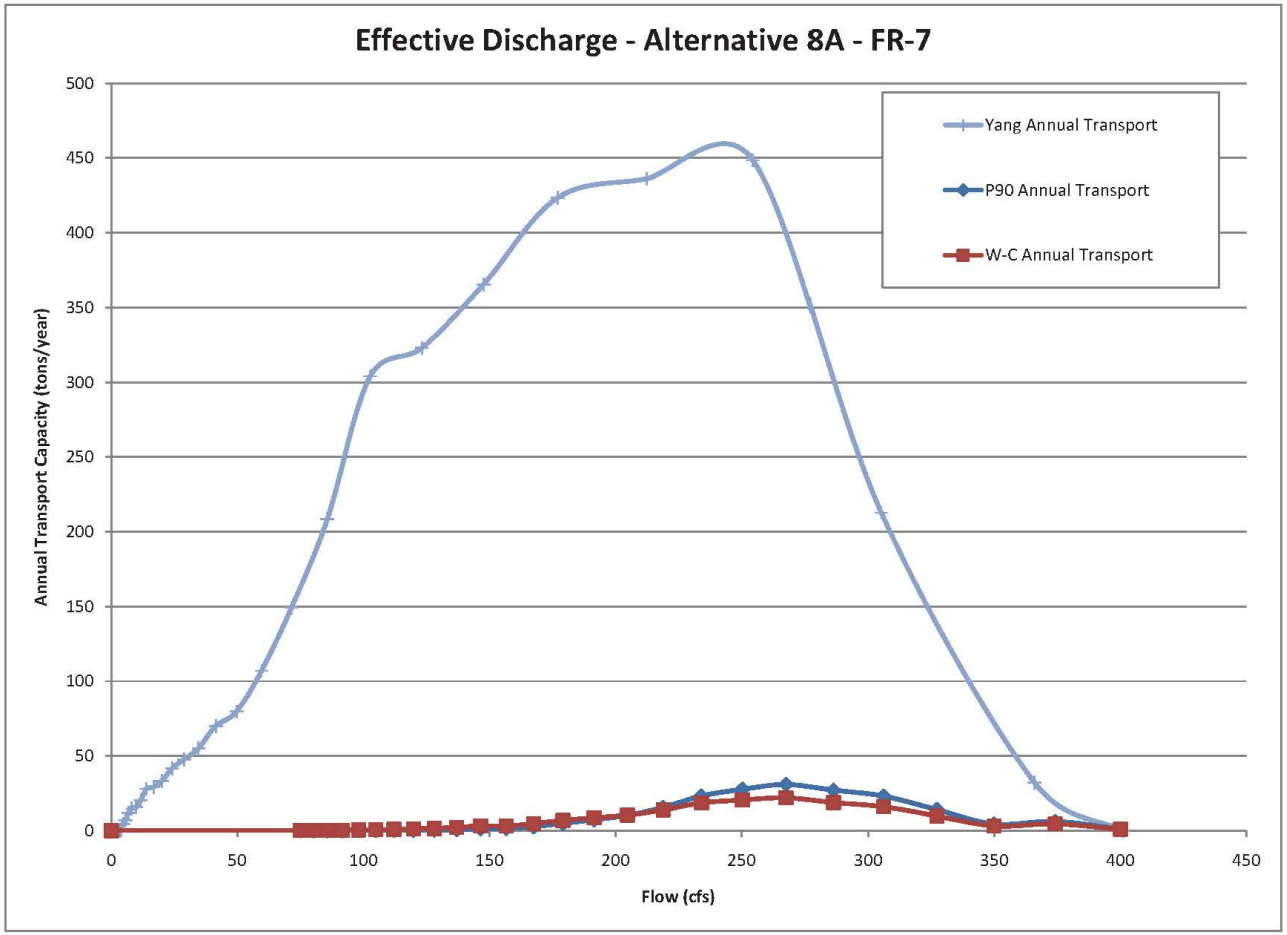


Figure H-9.52
Current Conditions
WF-1: Williams Fork near Sugarloaf Campground

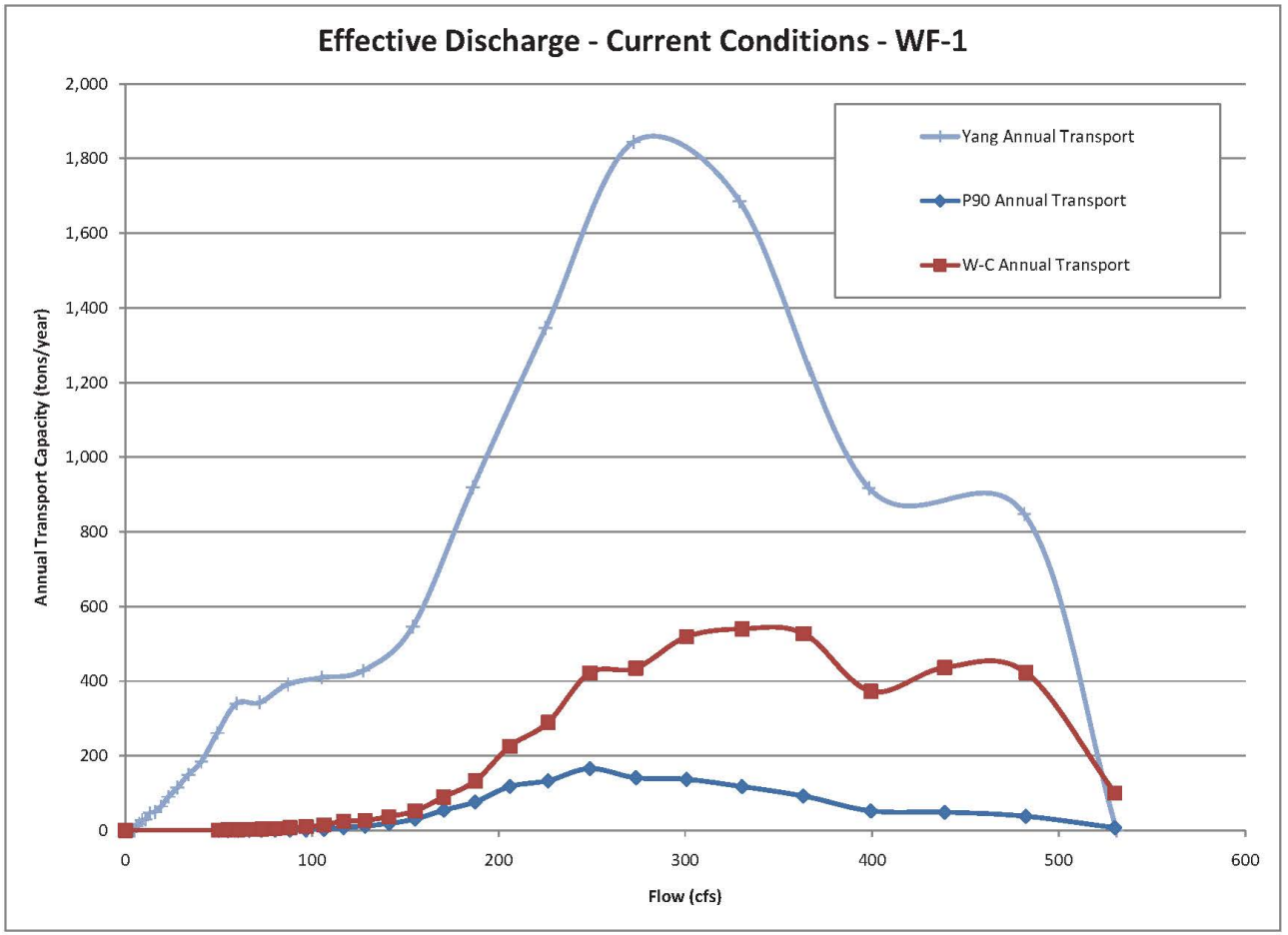


Figure H-9.53
Full Use
WF-1: Williams Fork near Sugarloaf Campground

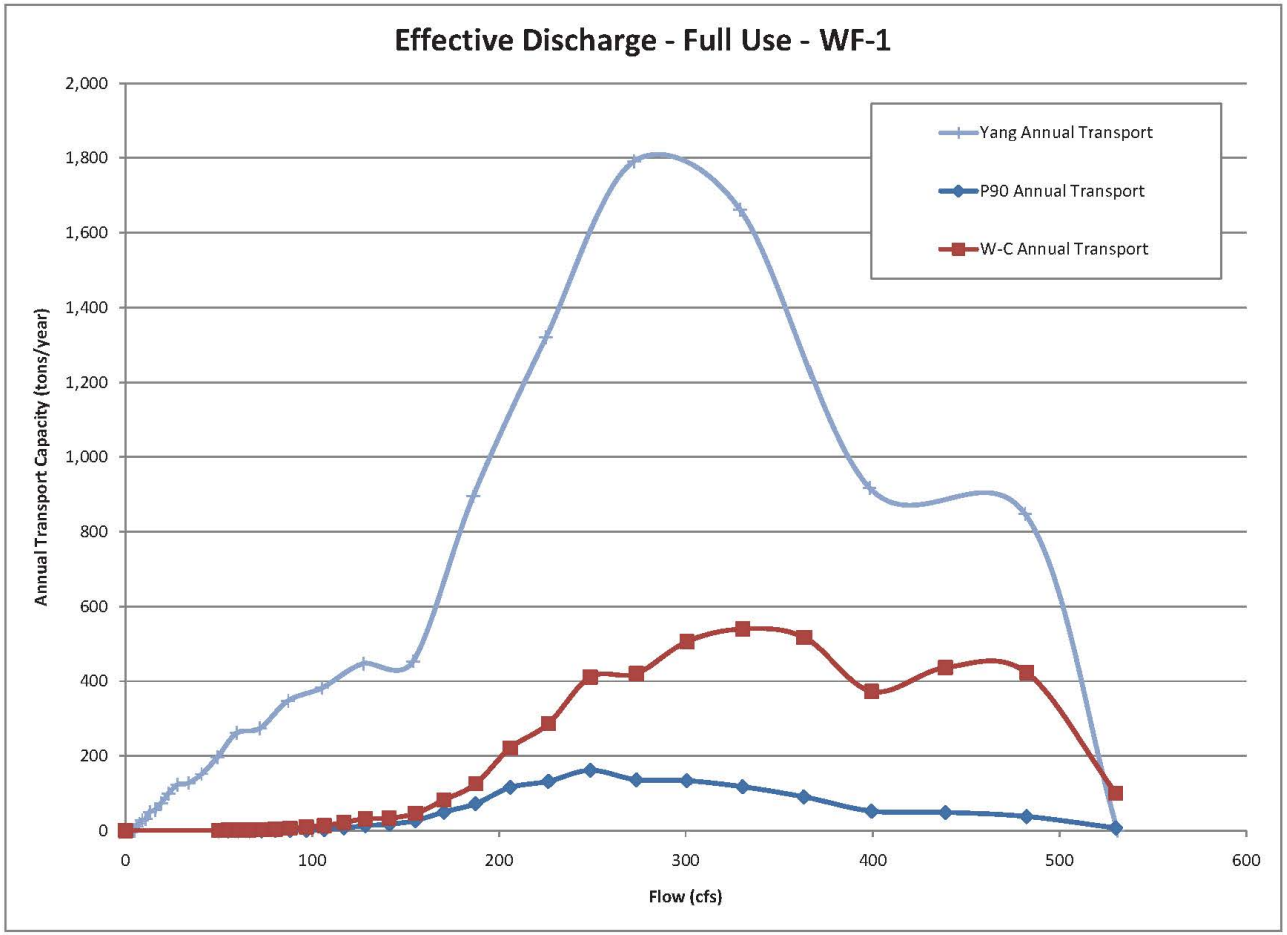


Figure H-9.54
No Action
WF-1: Williams Fork near Sugarloaf Campground

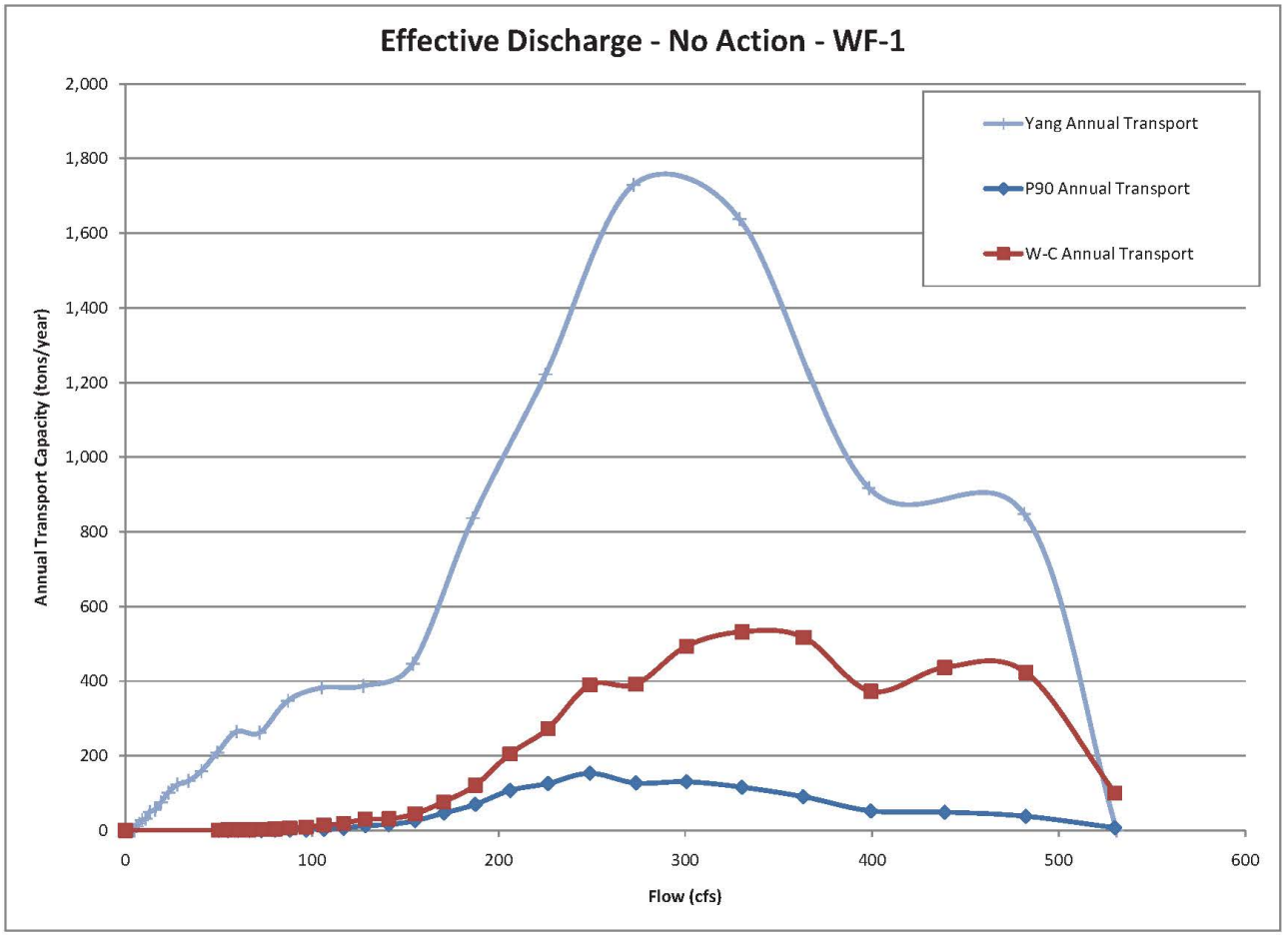


Figure H-9.55
Alternative 1A
WF-1: Williams Fork near Sugarloaf Campground

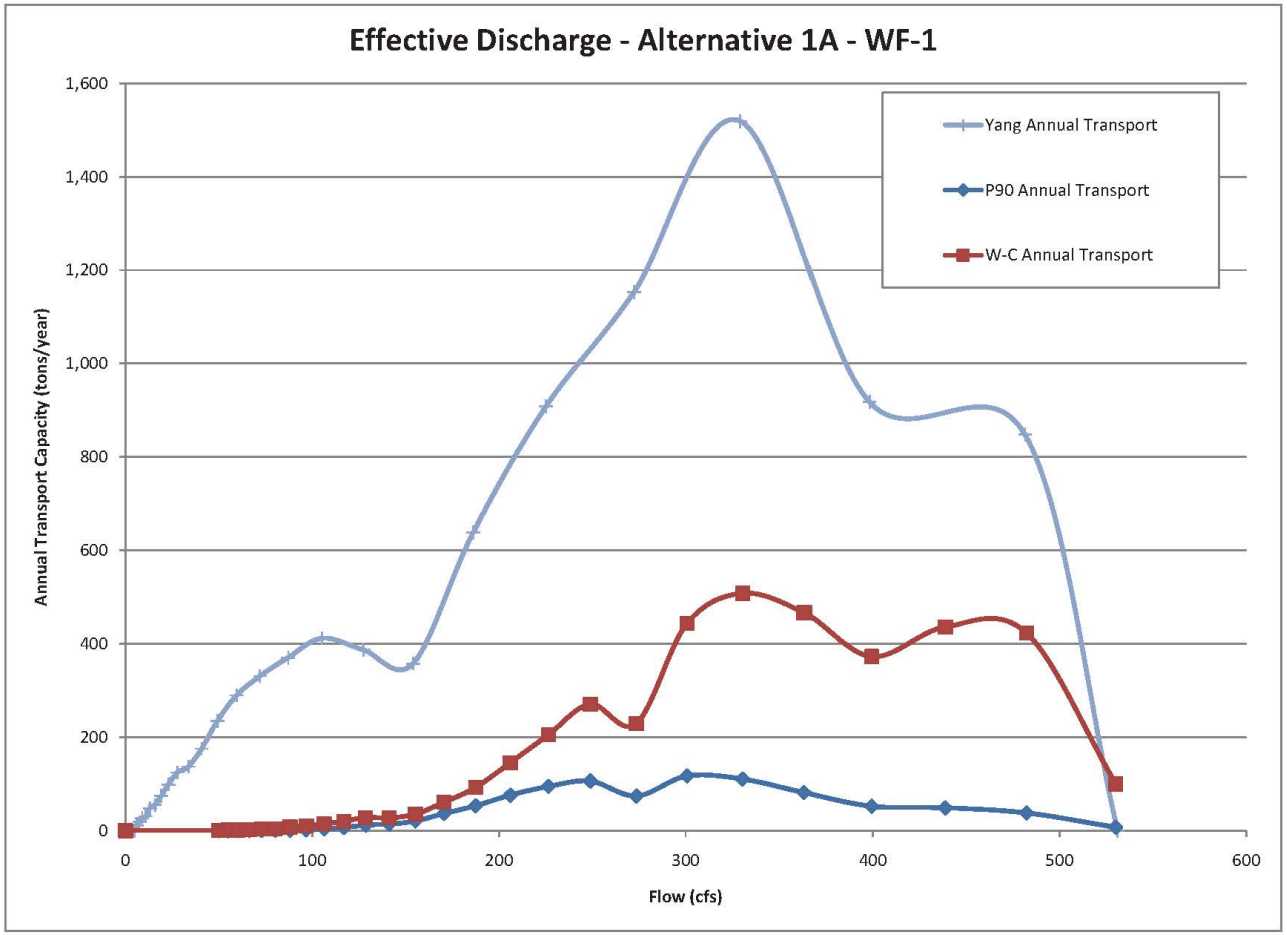


Figure H-9.56
Alternative 8A
WF-1: Williams Fork near Sugarloaf Campground

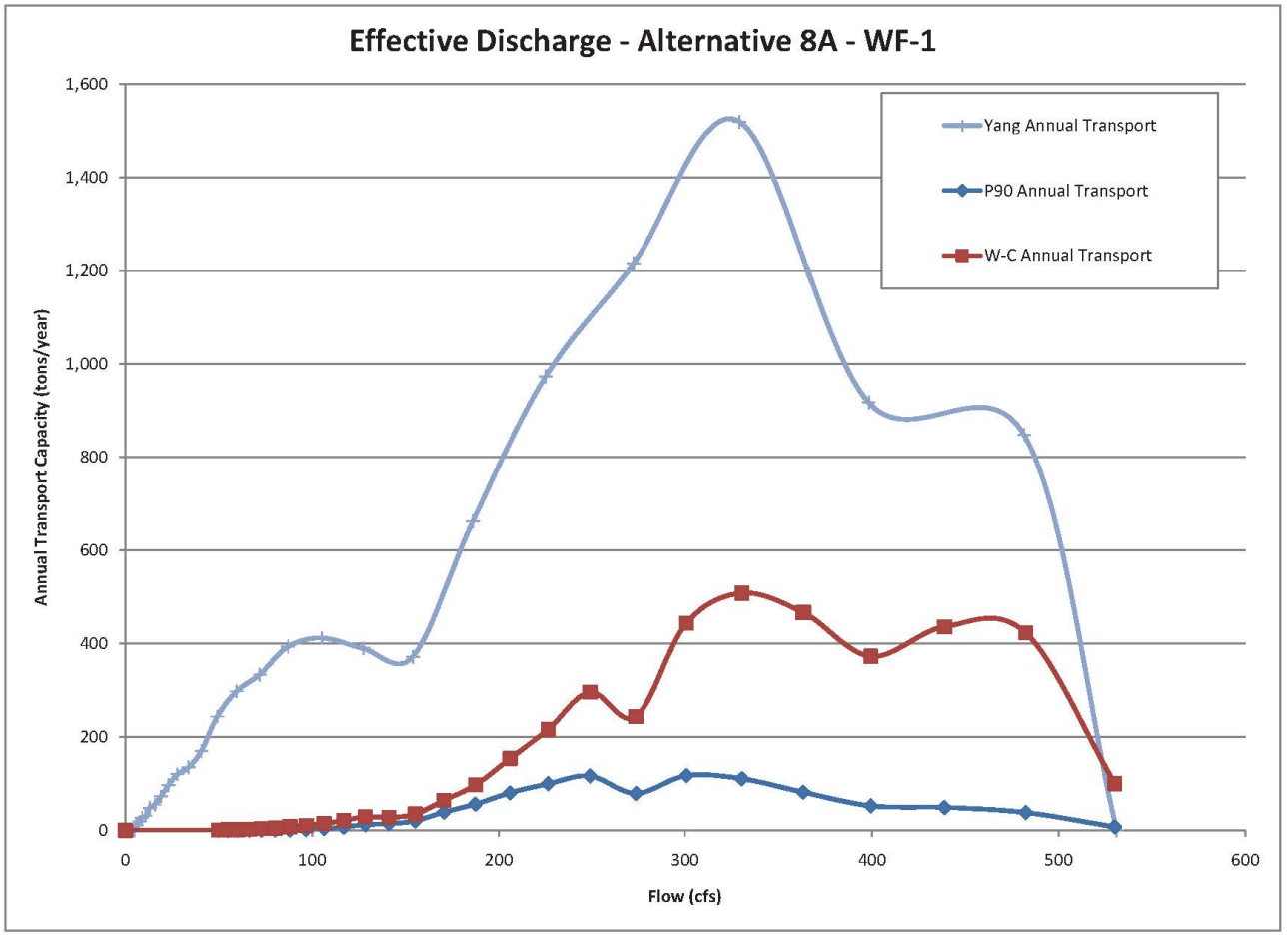


Figure H-9.57
Current Conditions
WF-2: Williams Fork below Steelman Creek

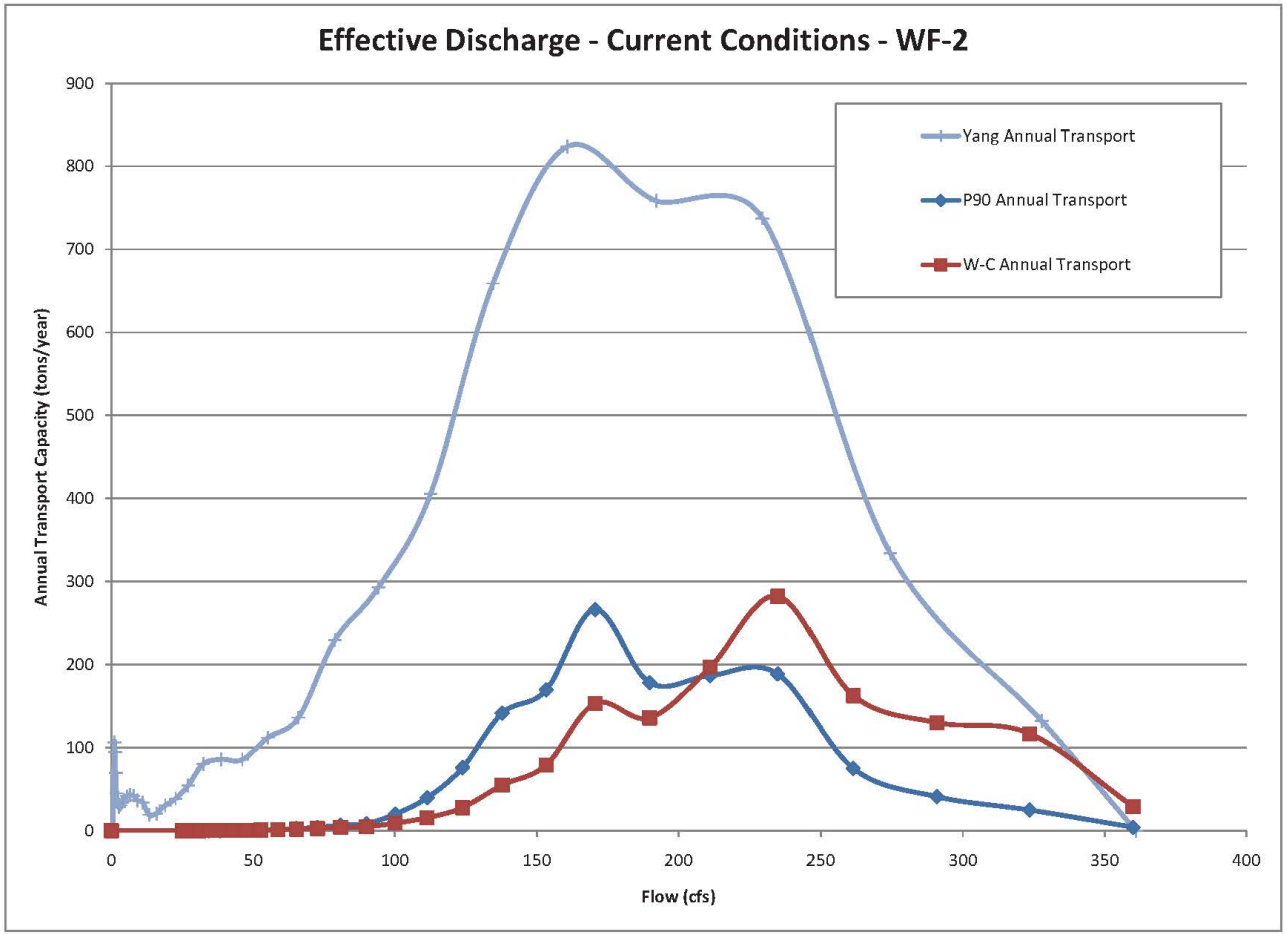


Figure H-9.58
Full Use
WF-2: Williams Fork below Steelman Creek

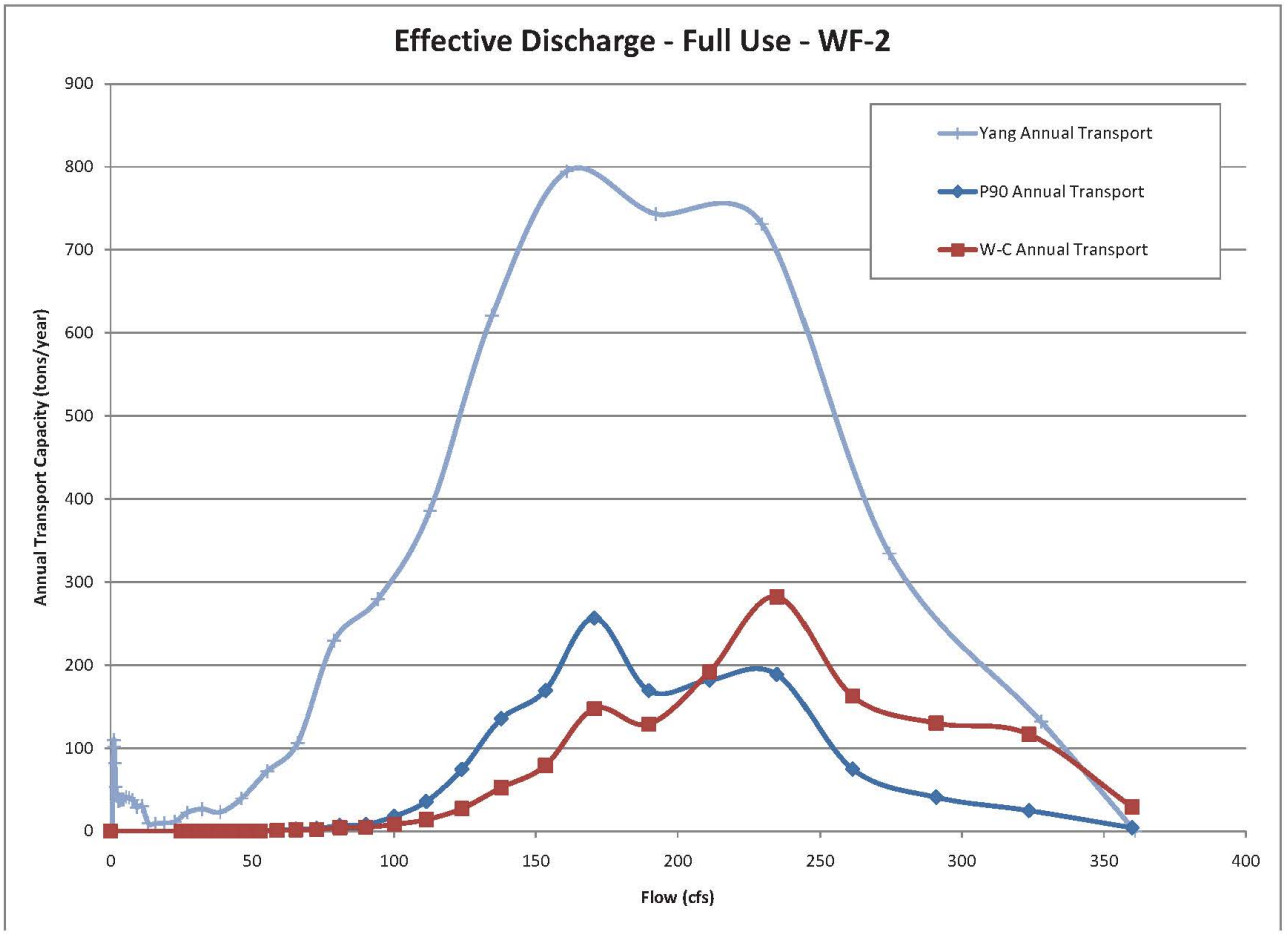


Figure H-9.59
No Action
WF-2: Williams Fork below Steelman Creek

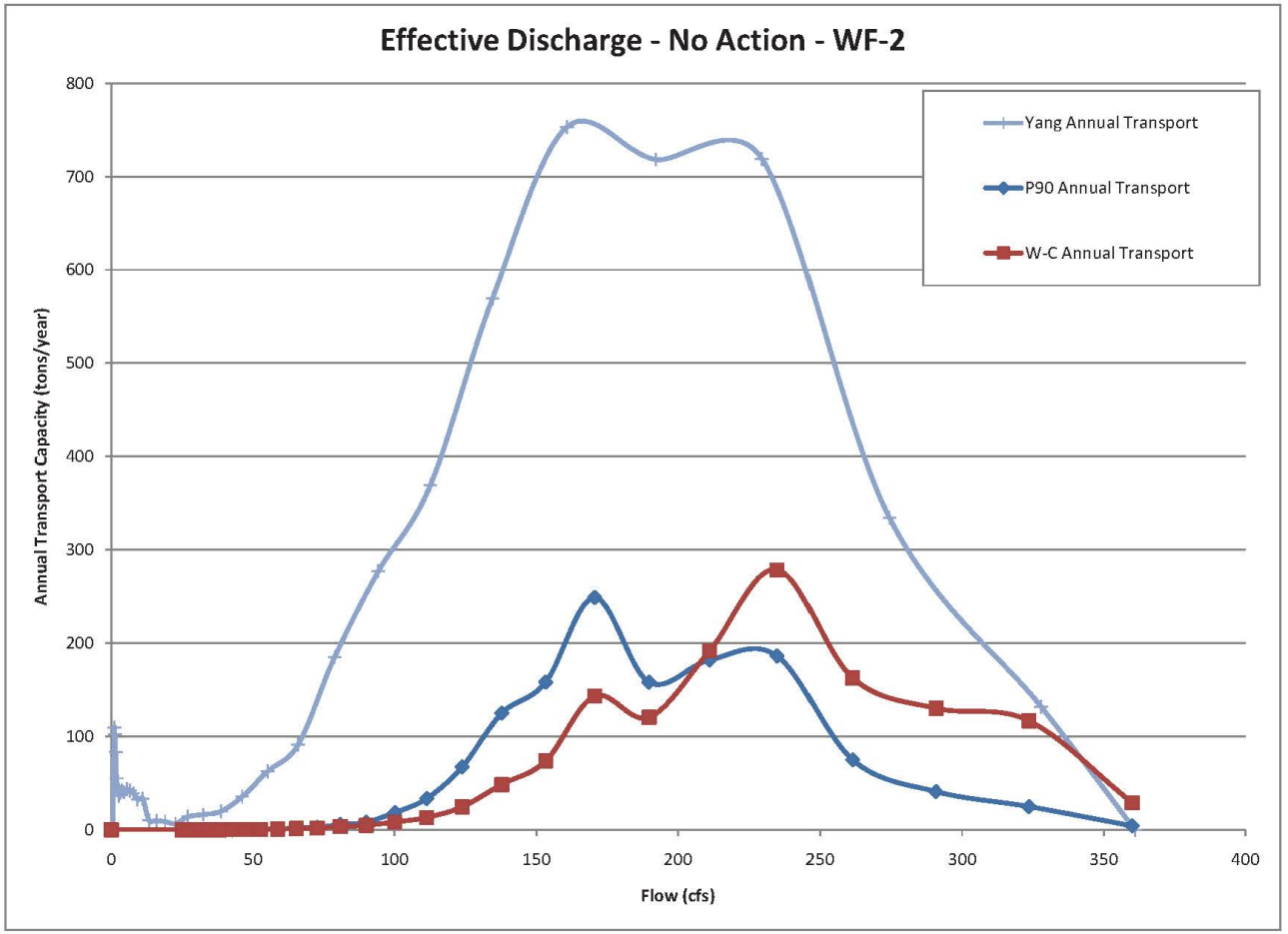


Figure H-9.60
Alternative 1A
WF-2: Williams Fork below Steelman Creek

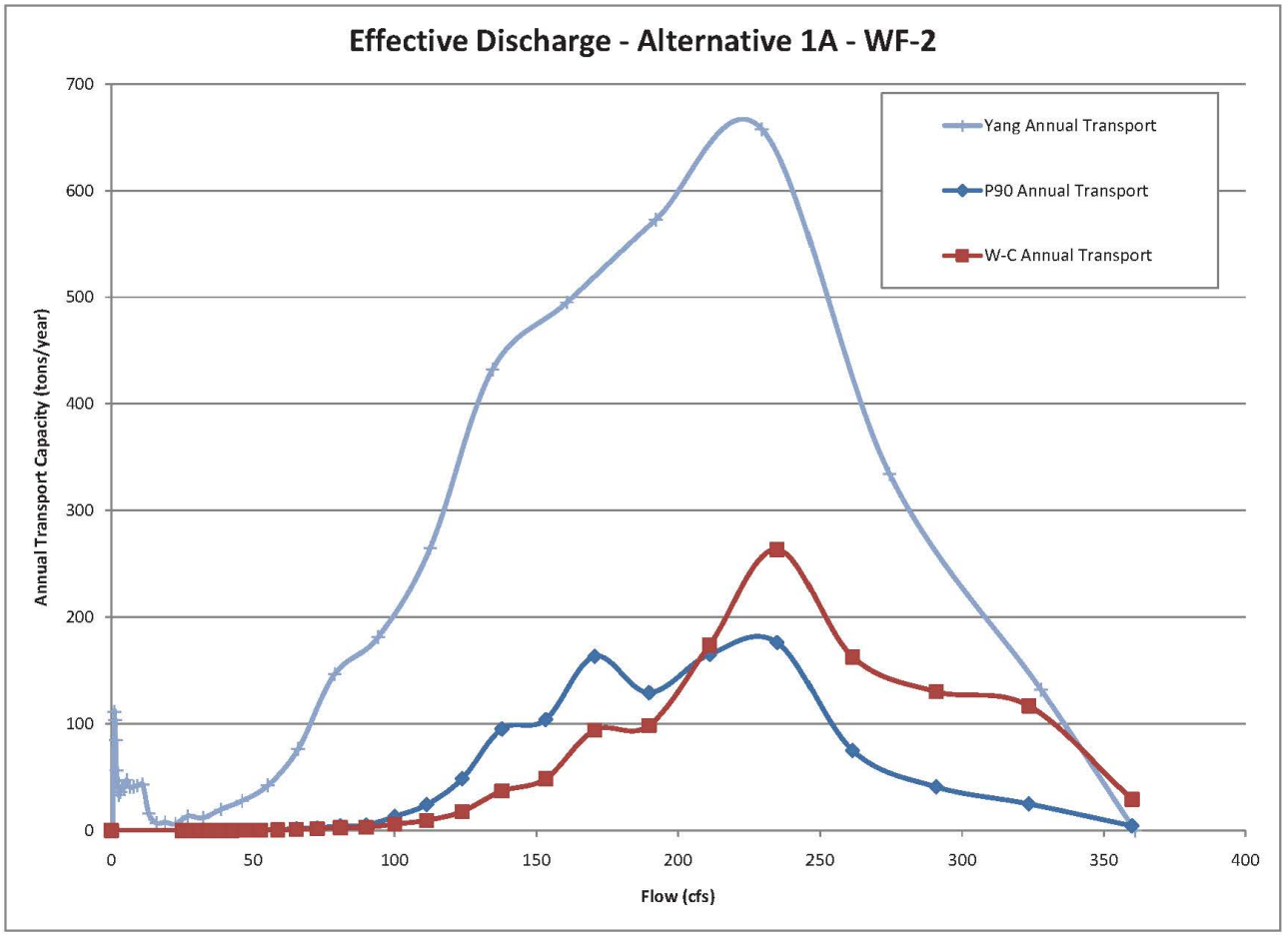


Figure H-9.61
Alternative 8A
WF-2: Williams Fork below Steelman Creek

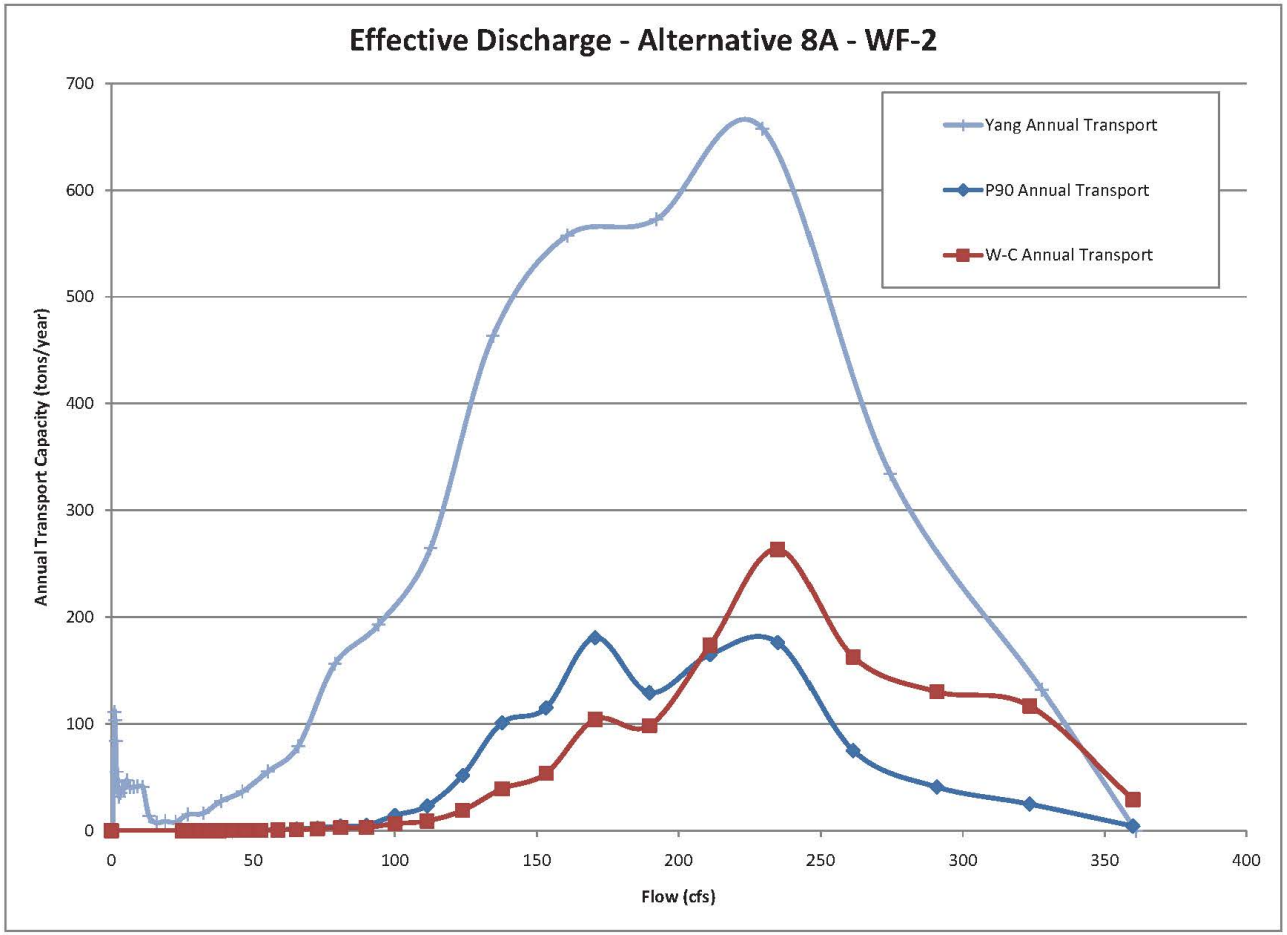


Figure H-9.62
Current Conditions
CR-1: Colorado River above Parshall

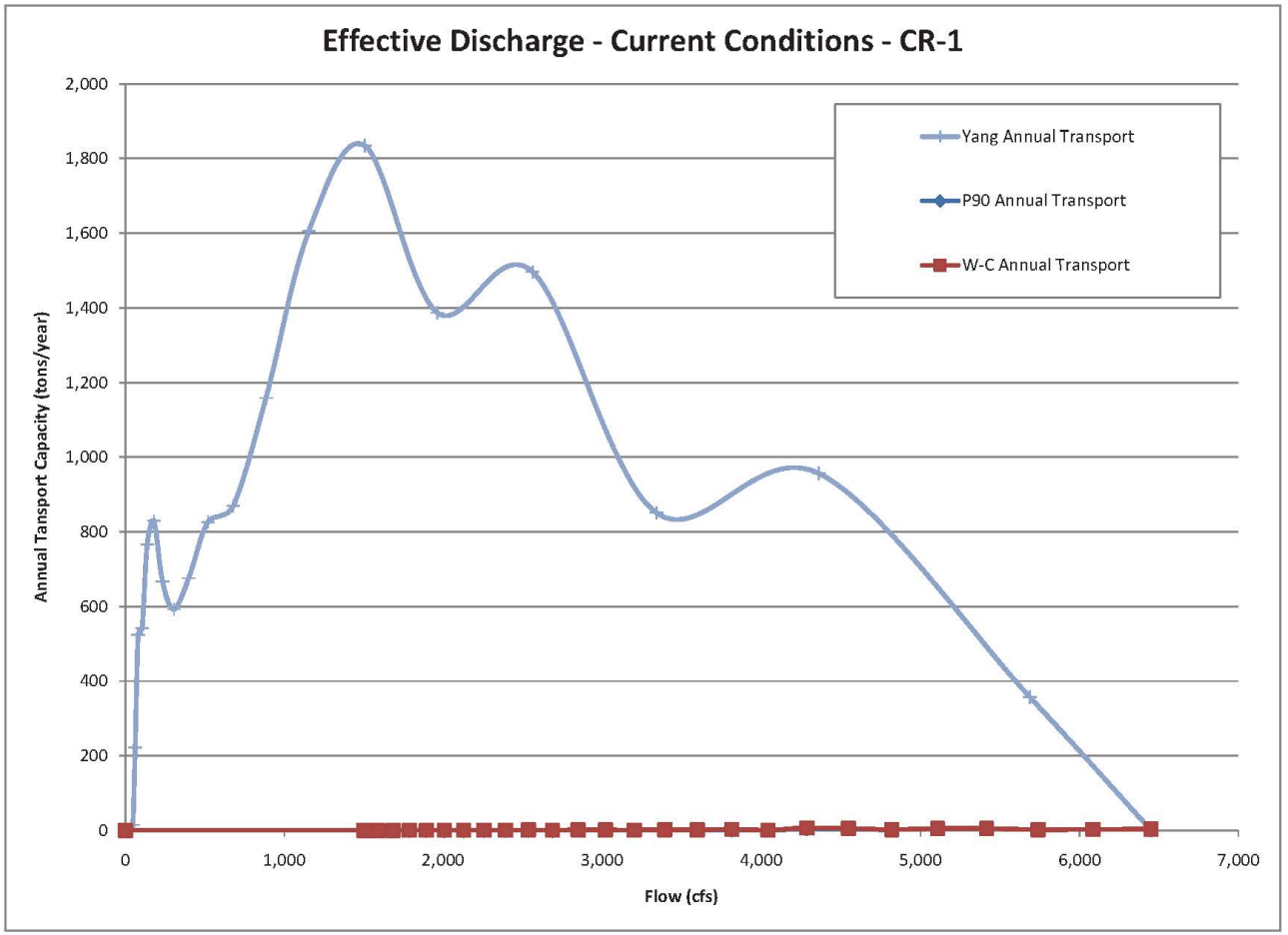


Figure H-9.63
Full Use
CR-1: Colorado River above Parshall

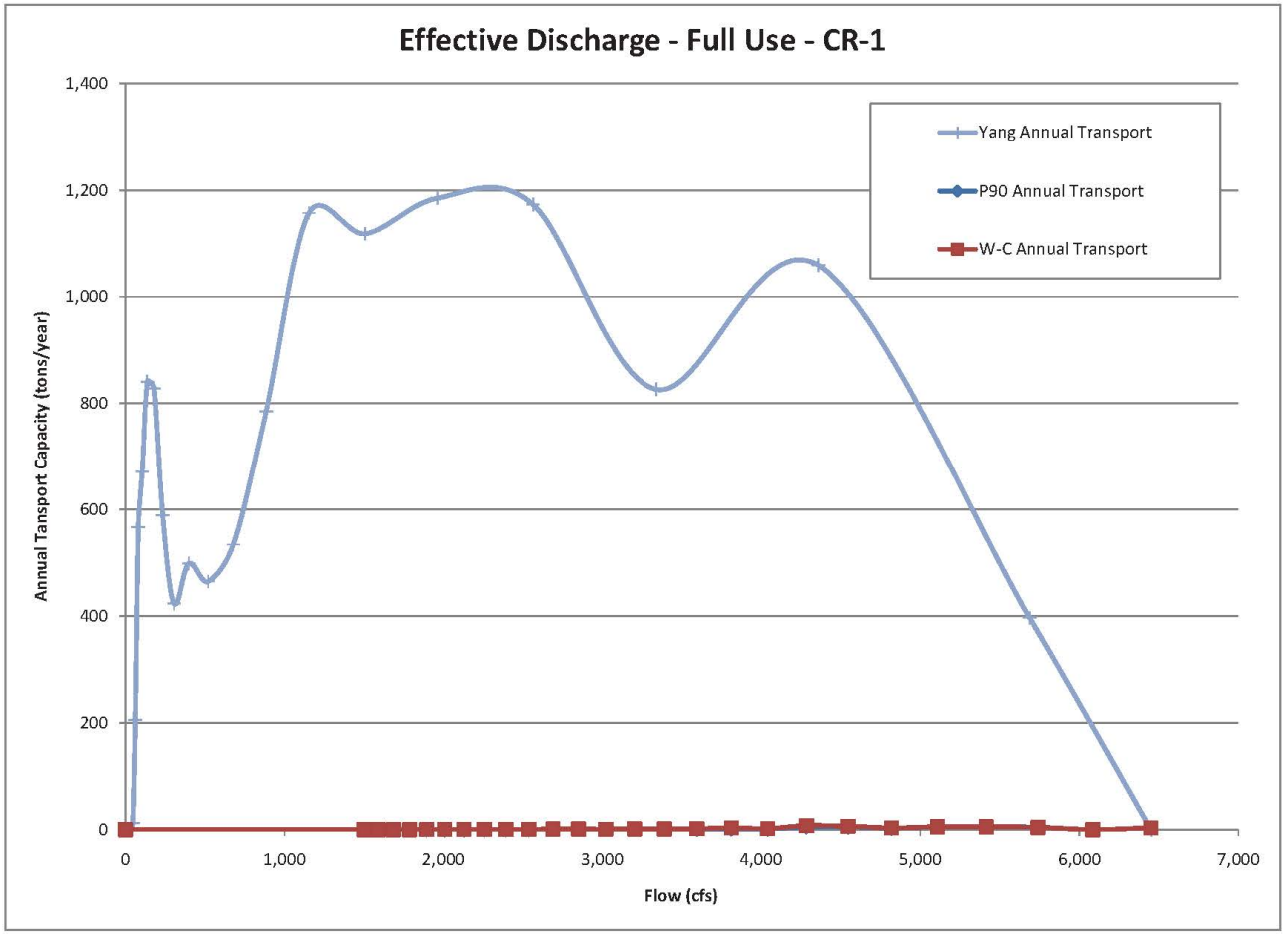


Figure H-9.64
No Action
CR-1: Colorado River above Parshall

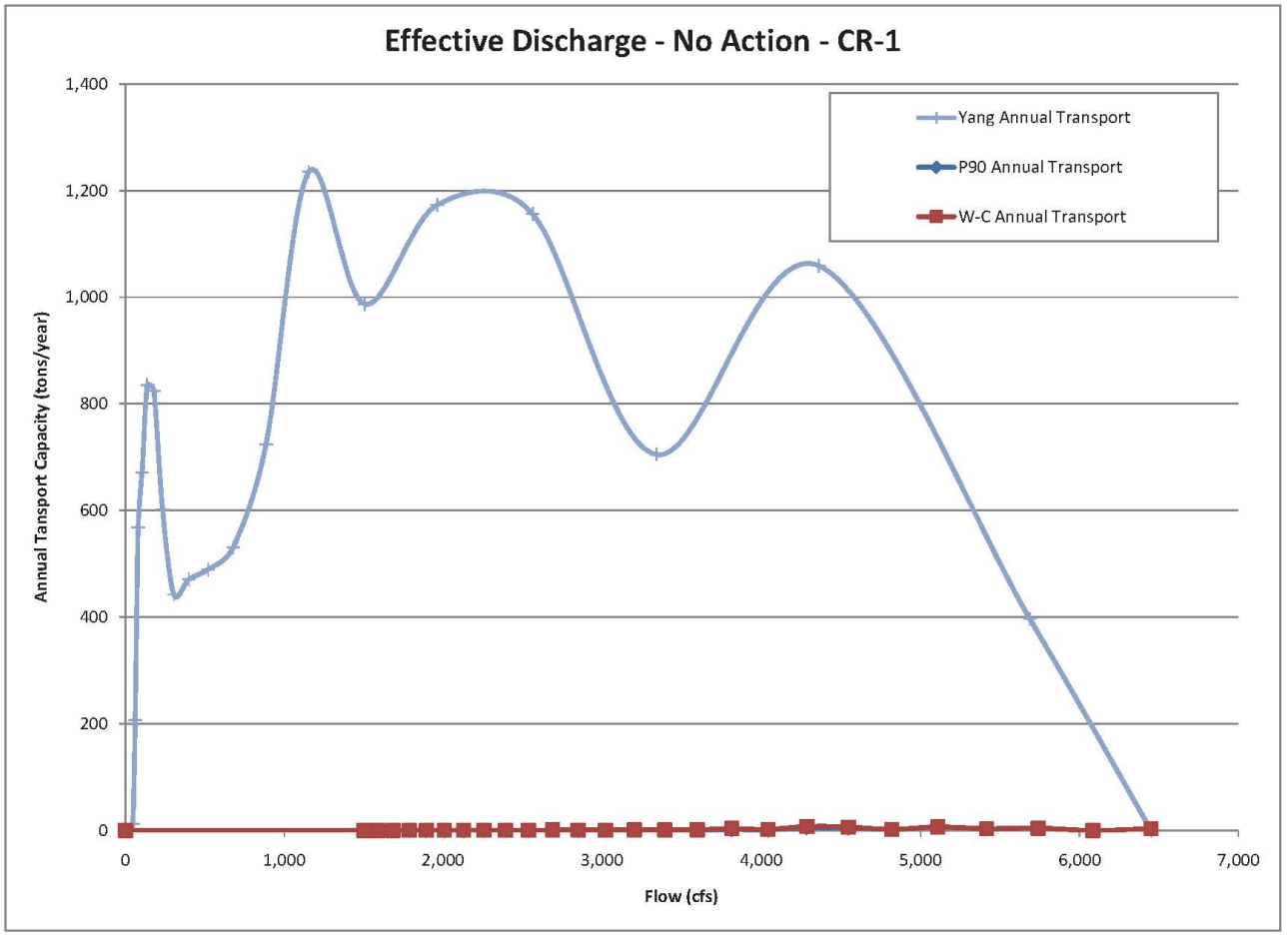


Figure H-9.65
Alternative 1A
CR-1: Colorado River above Parshall

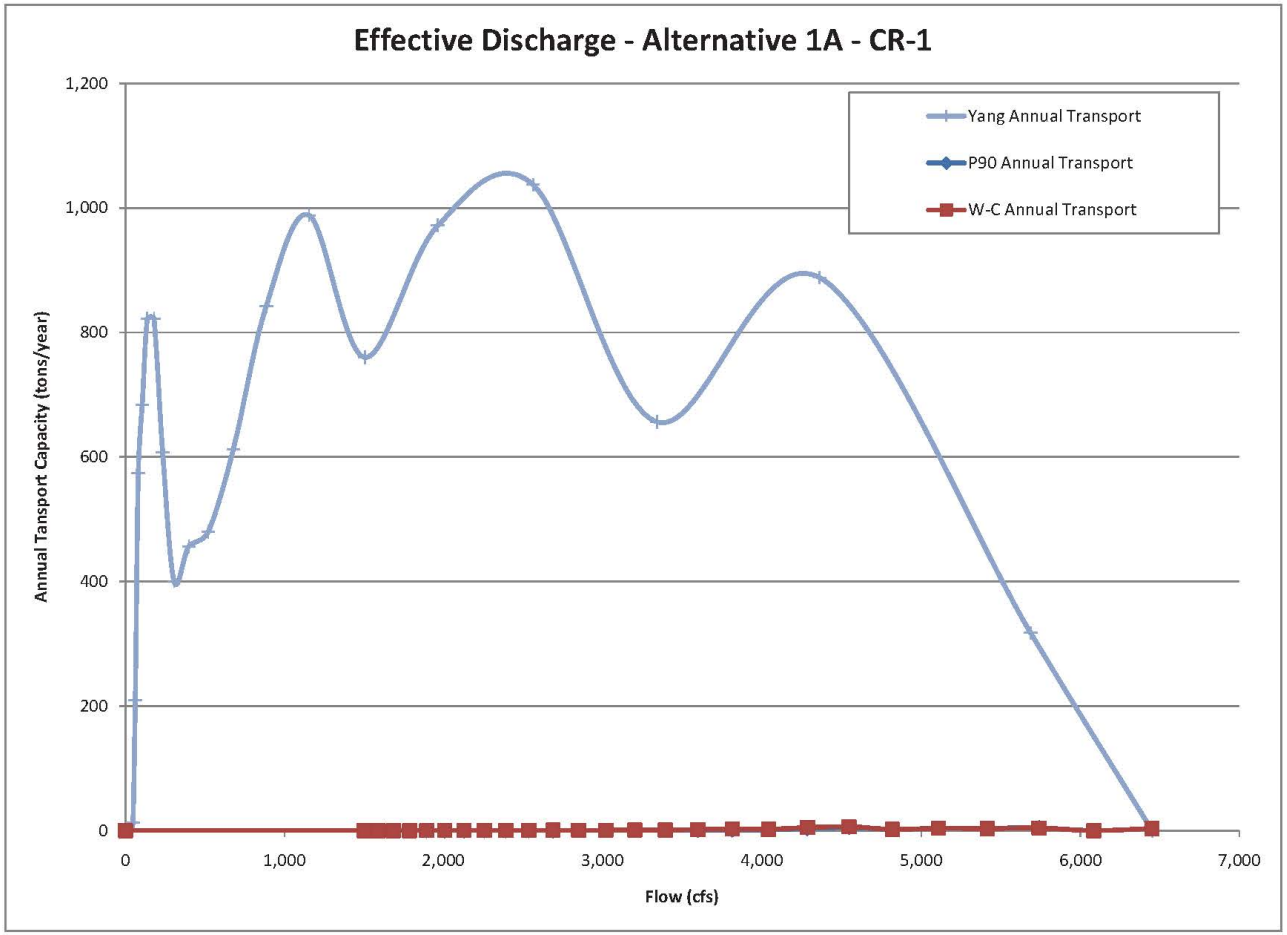


Figure H-9.66
Alternative 8A
CR-1: Colorado River above Parshall

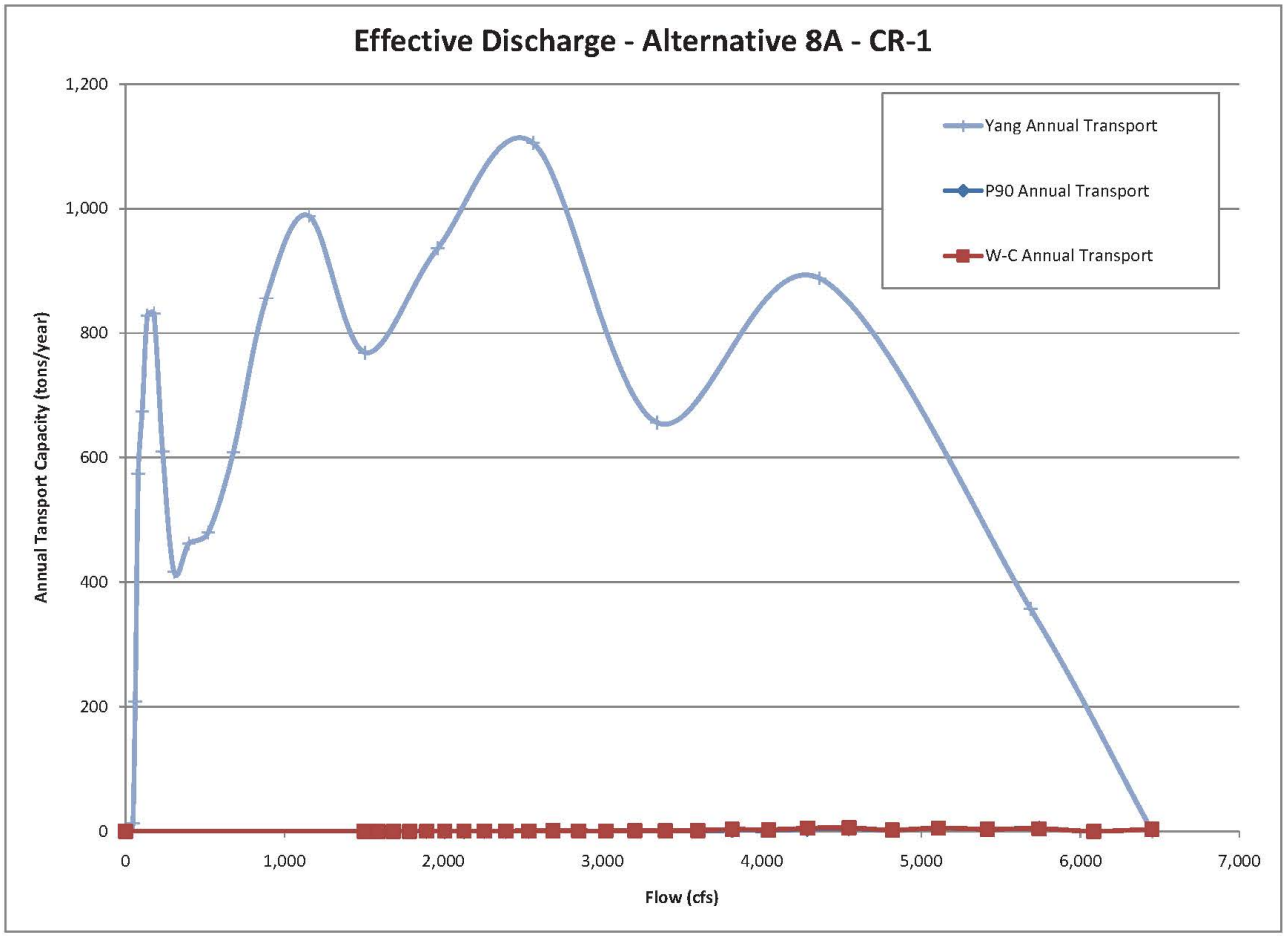


Figure H-9.67
Current Conditions
CR-2: Colorado River at Kemp Breeze State Wildlife Area

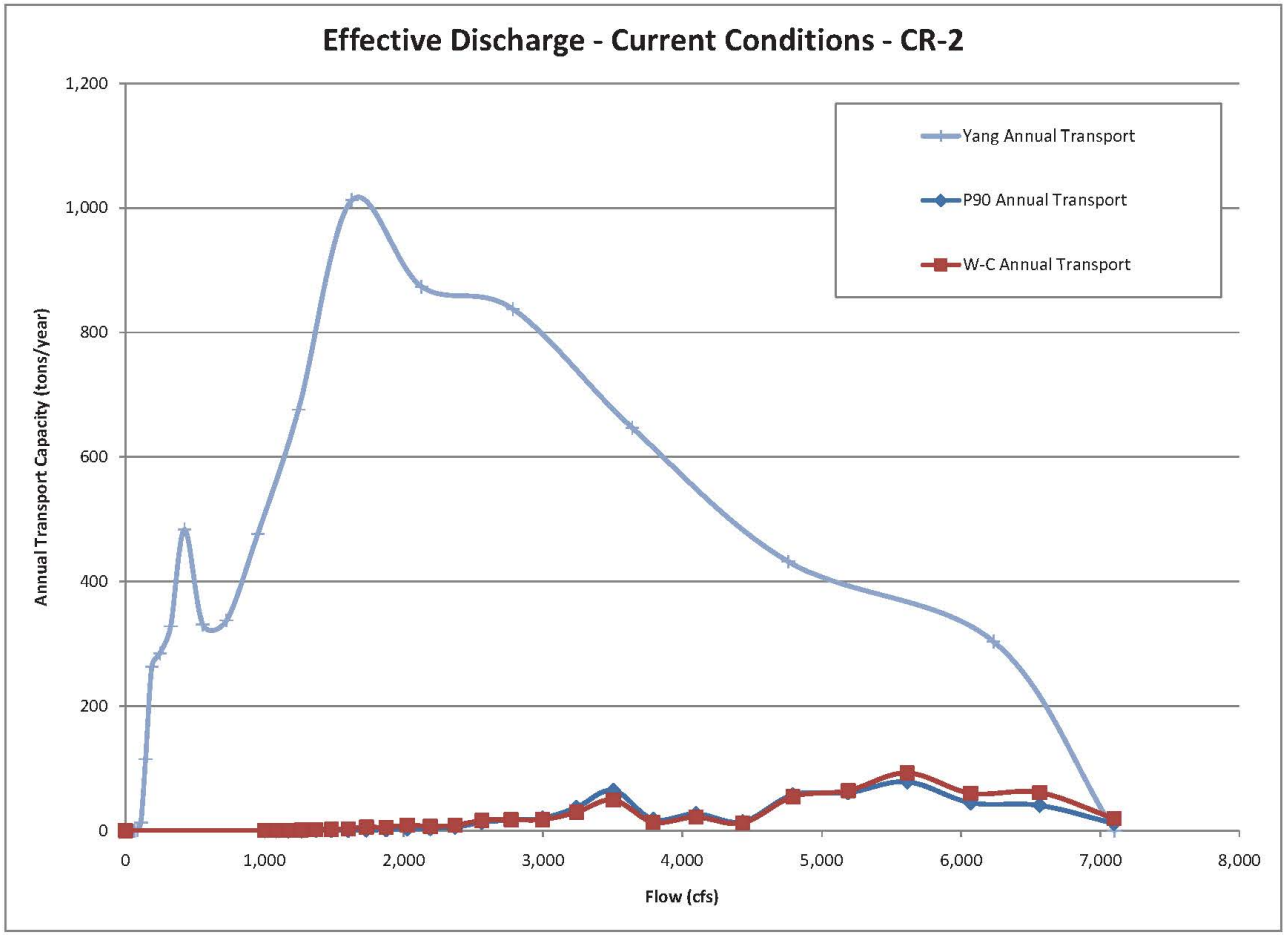


Figure H-9.68
Full Use
CR-2: Colorado River at Kemp Breeze State Wildlife Area

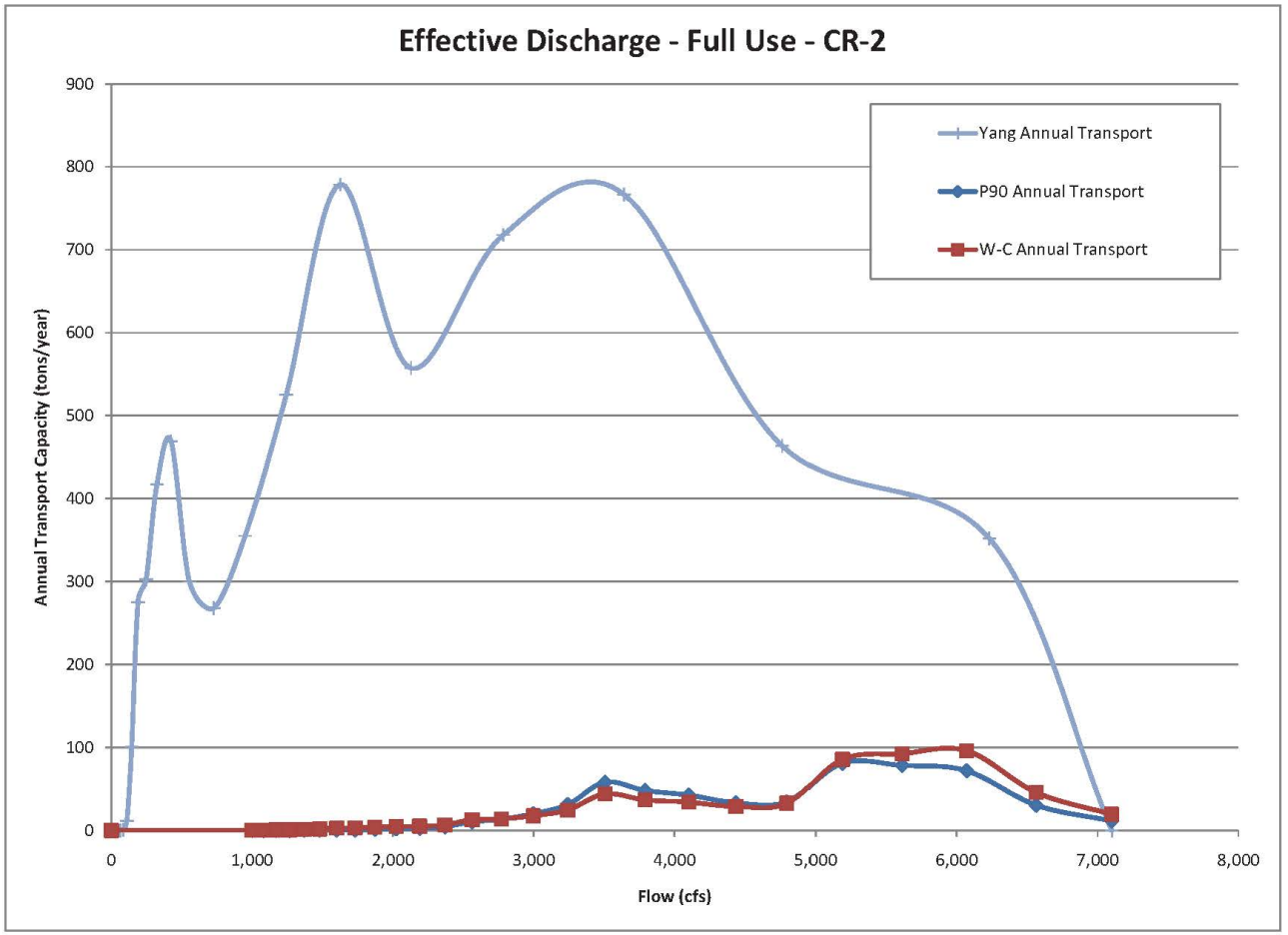


Figure H-9.69
No Action
CR-2: Colorado River at Kemp Breeze State Wildlife Area

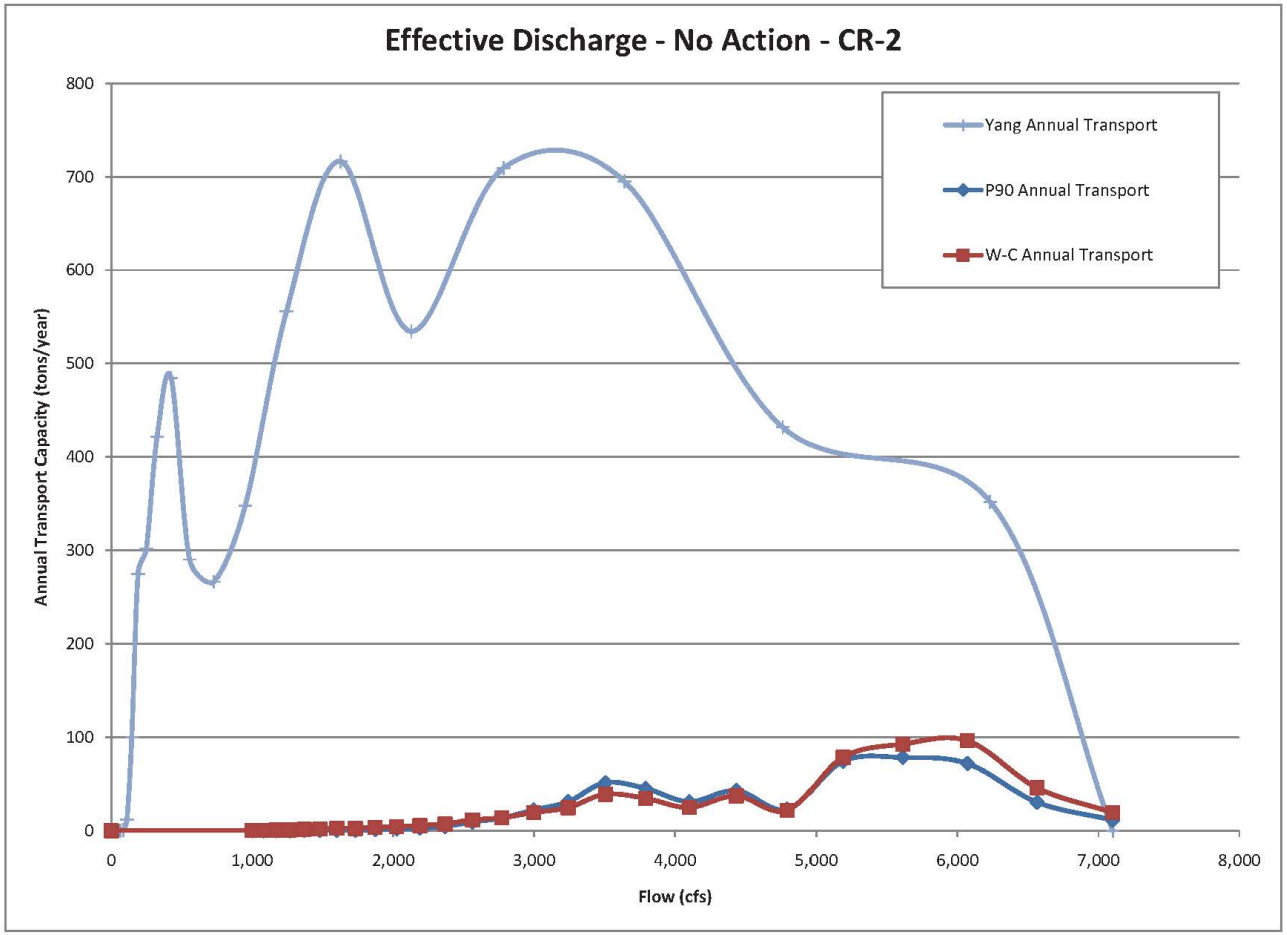


Figure H-9.70
Alternative 1A
CR-2: Colorado River at Kemp Breeze State Wildlife Area

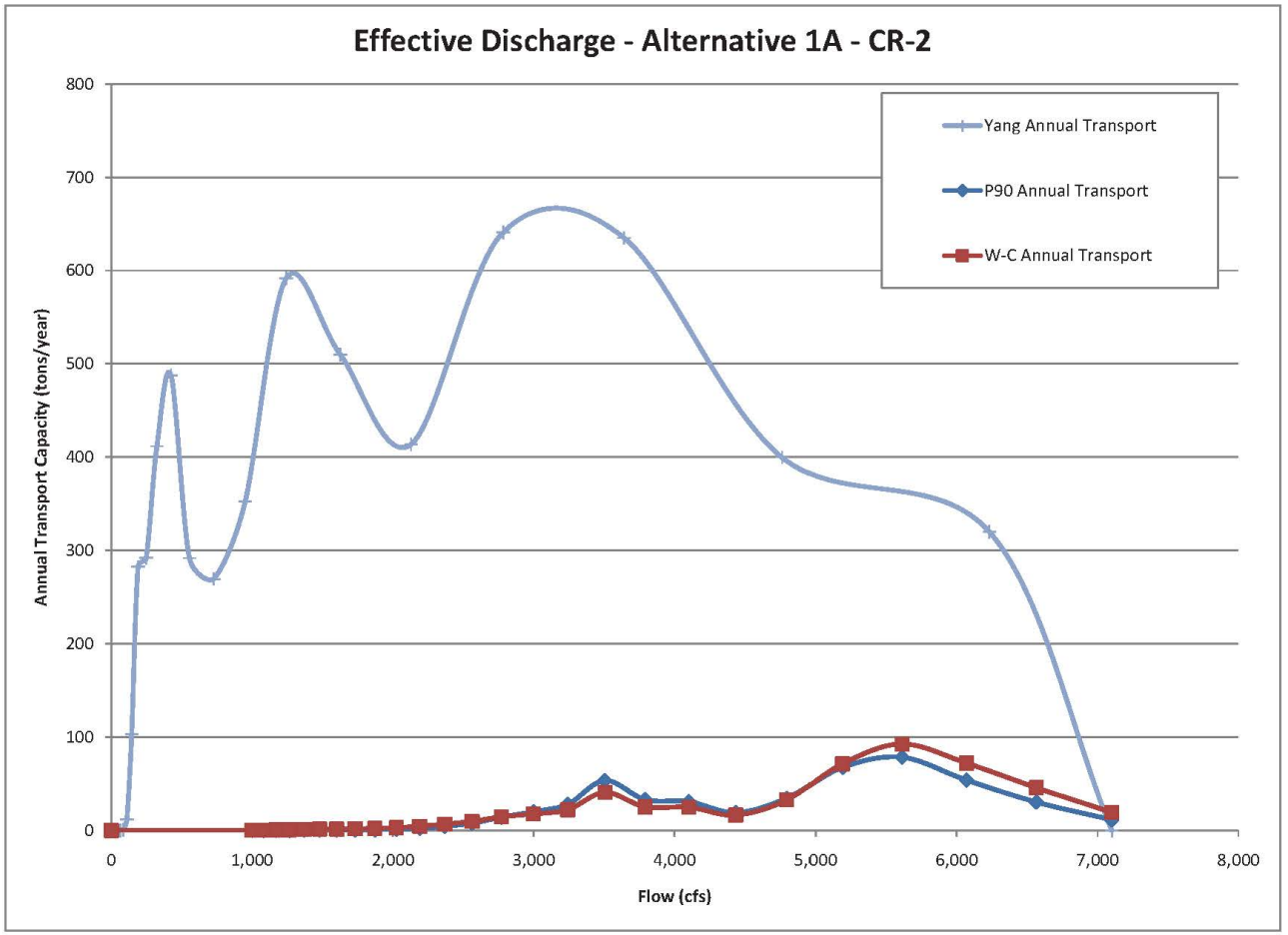


Figure H-9.71
Alternative 8A
CR-2: Colorado River at Kemp Breeze State Wildlife Area

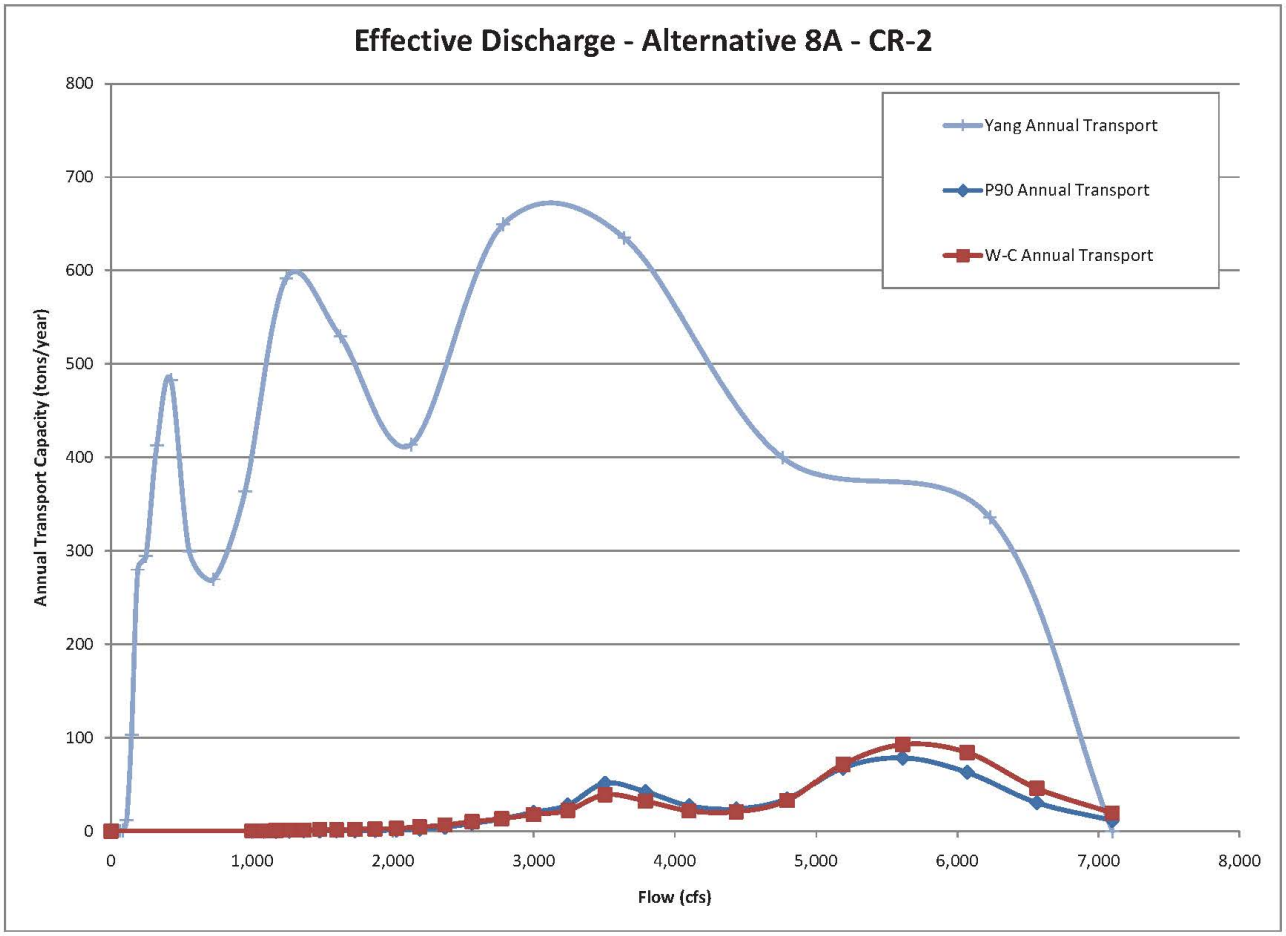


Figure H-9.72
Current Conditions
BR-1: Blue River below Boulder Creek

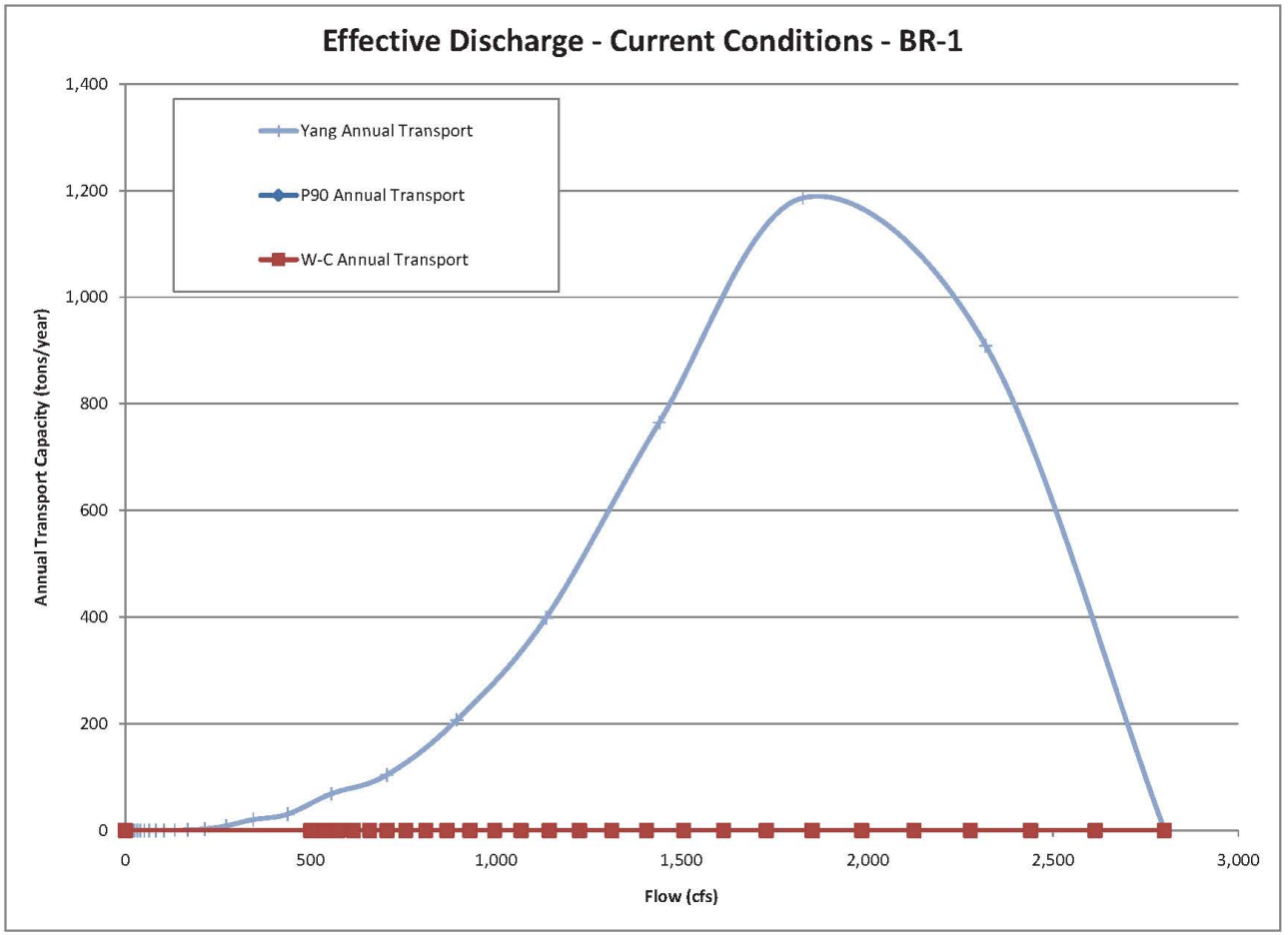


Figure H-9.73
Full Use
BR-1: Blue River below Boulder Creek

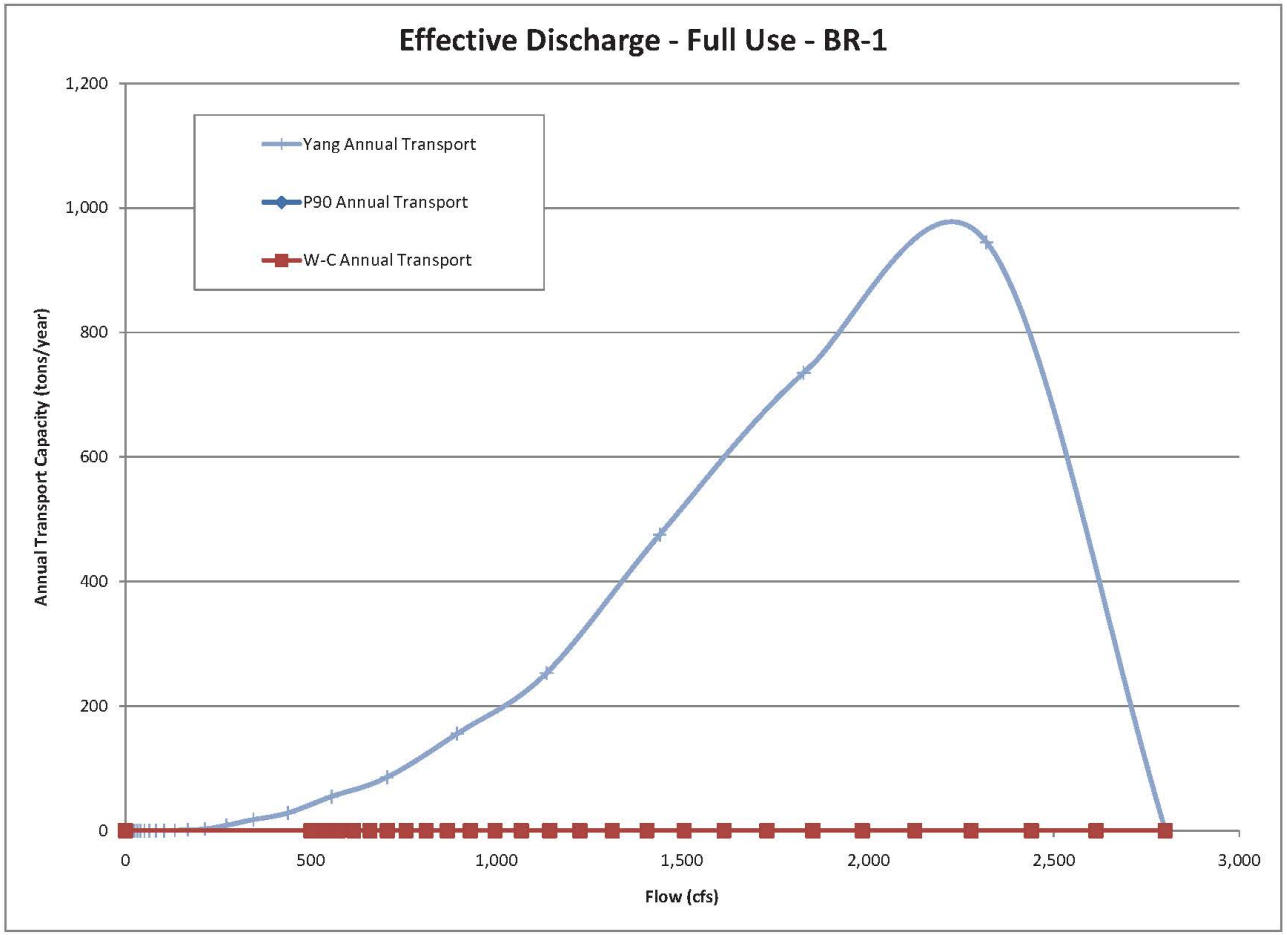


Figure H-9.74
No Action
BR-1: Blue River below Boulder Creek

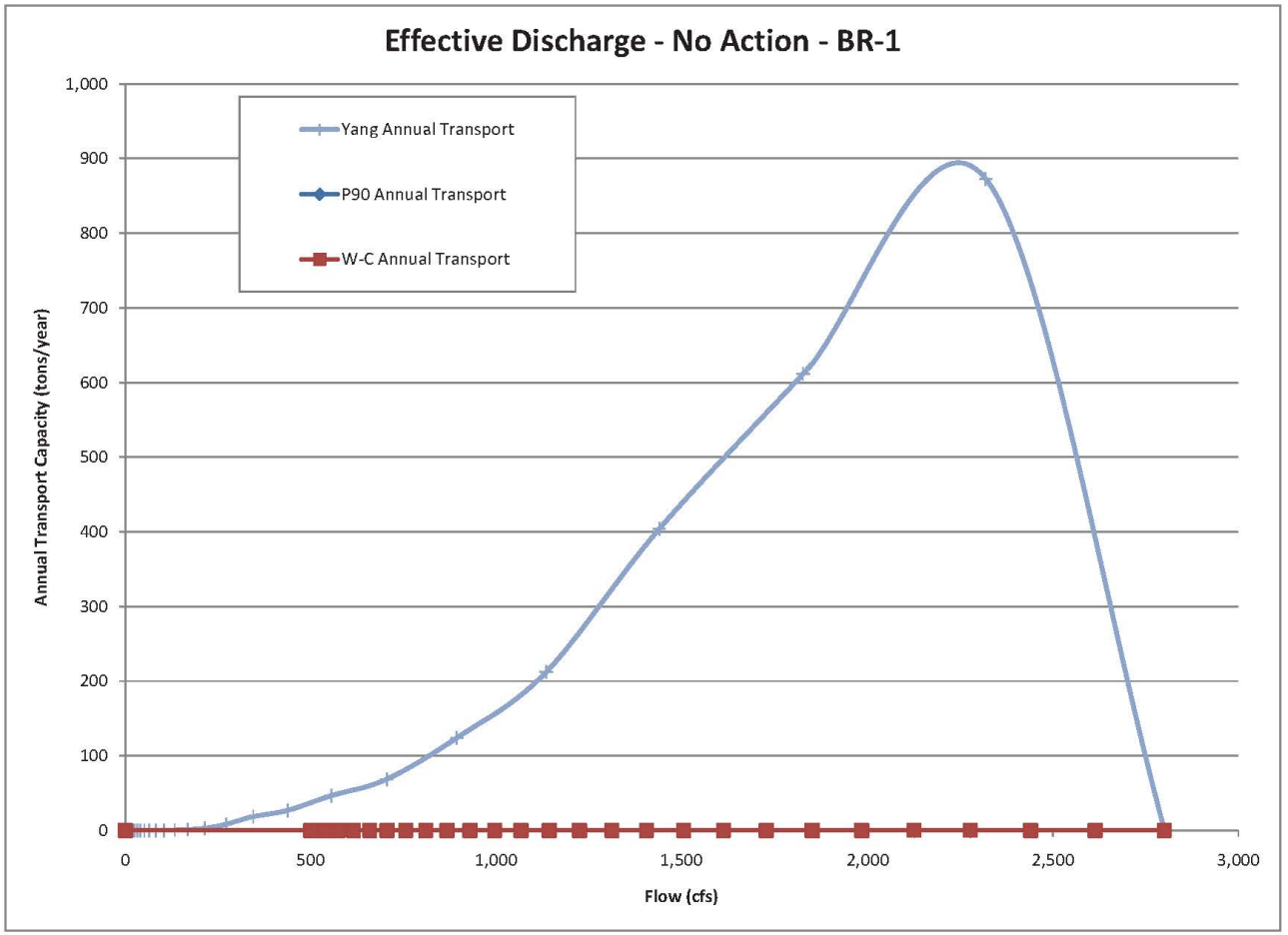


Figure H-9.75
Alternative 1A
BR-1: Blue River below Boulder Creek

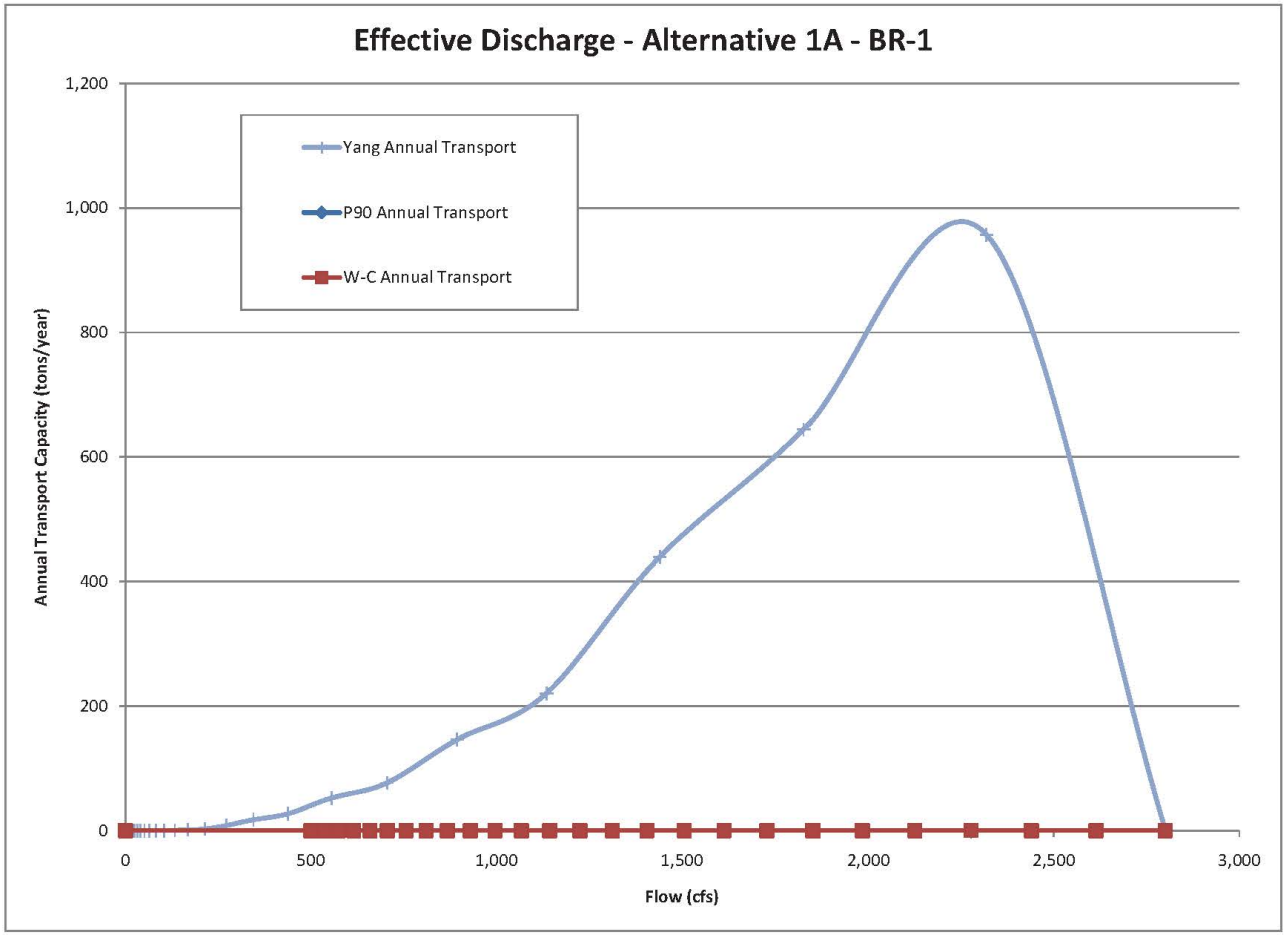


Figure H-9.76
Alternative 8A
BR-1: Blue River below Boulder Creek

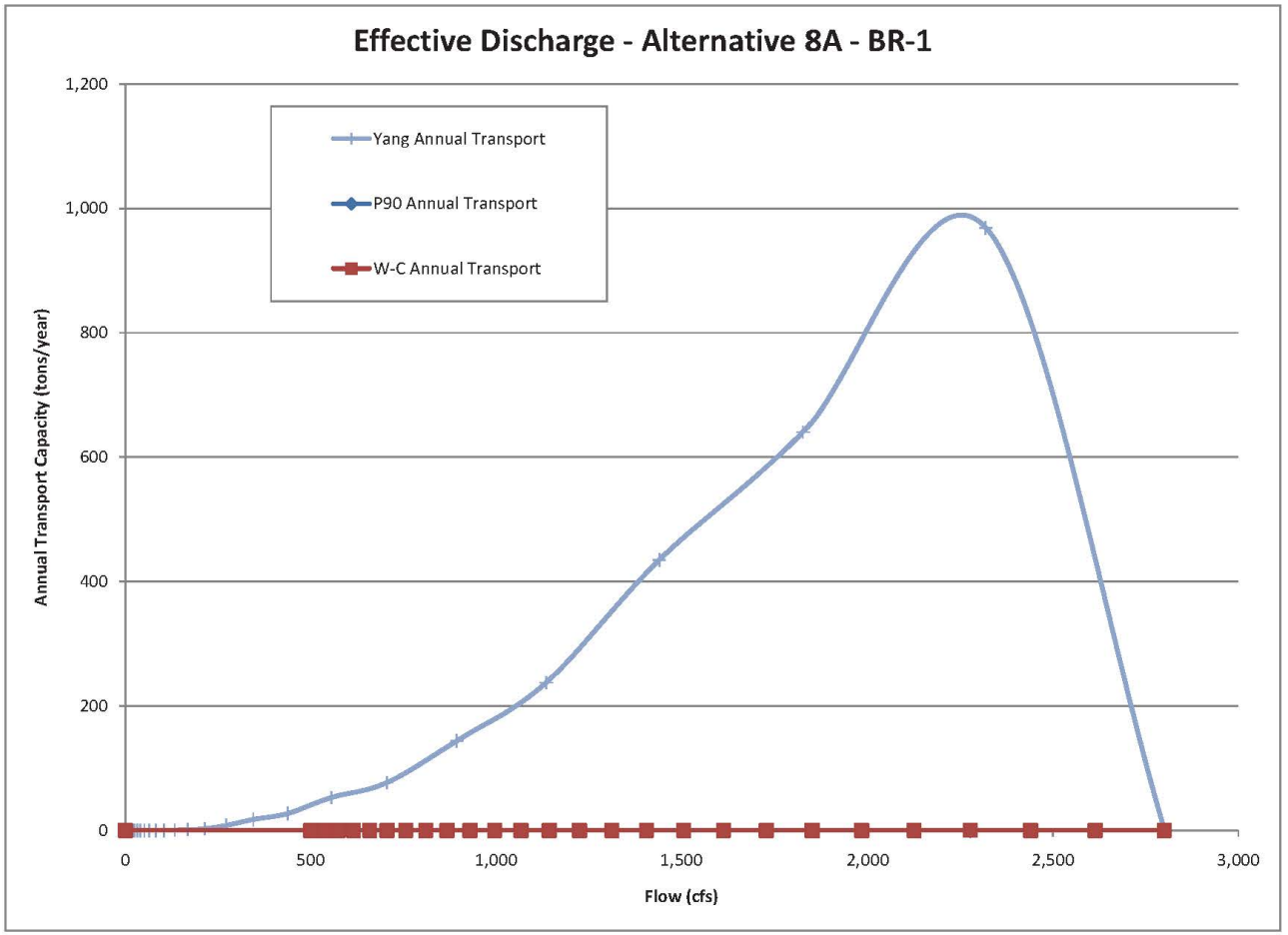


Figure H-9.77
Current Conditions
NF-1: North Fork South Platte near Shawnee

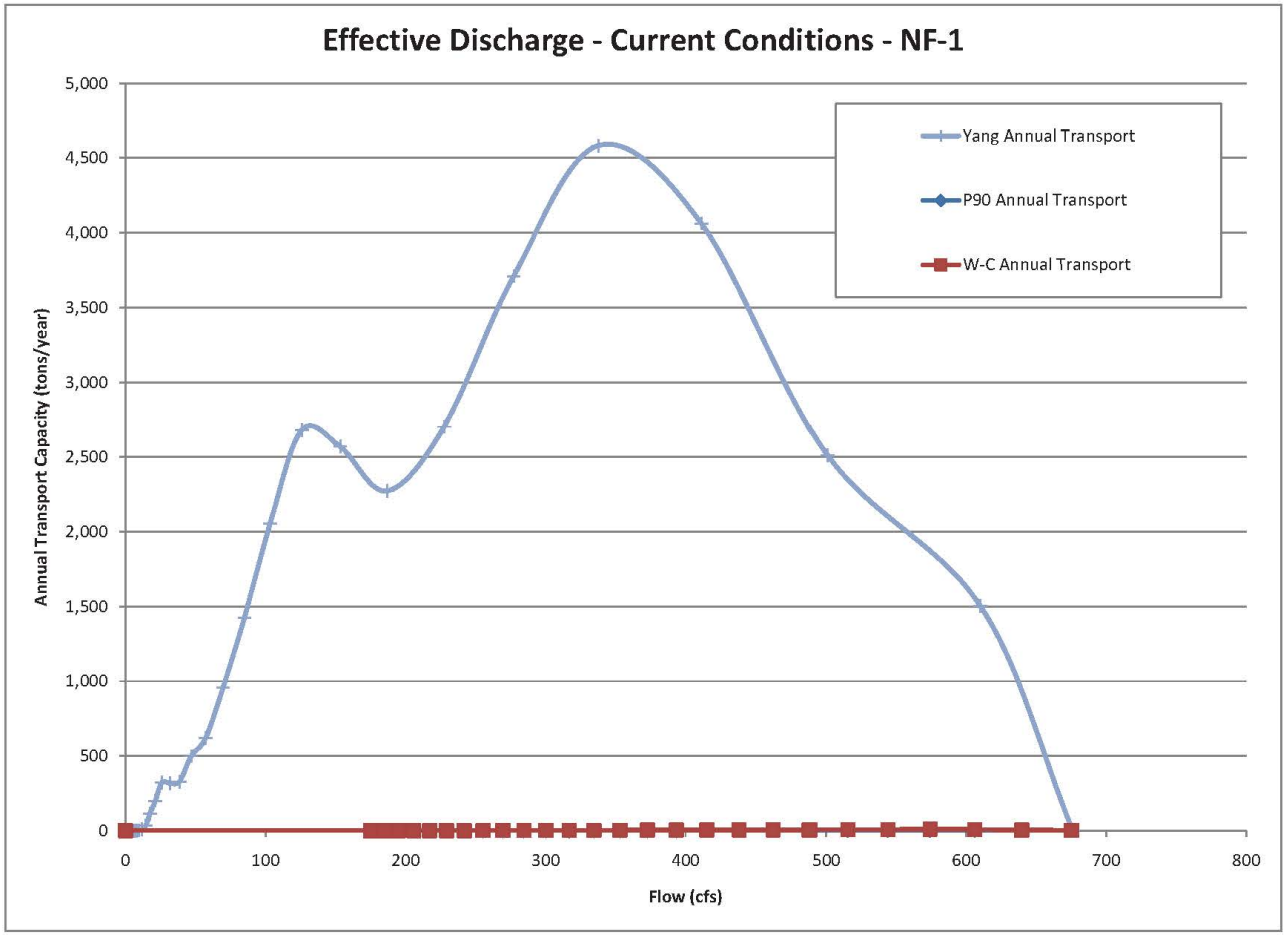


Figure H-9.78
Full Use
NF-1: North Fork South Platte near Shawnee

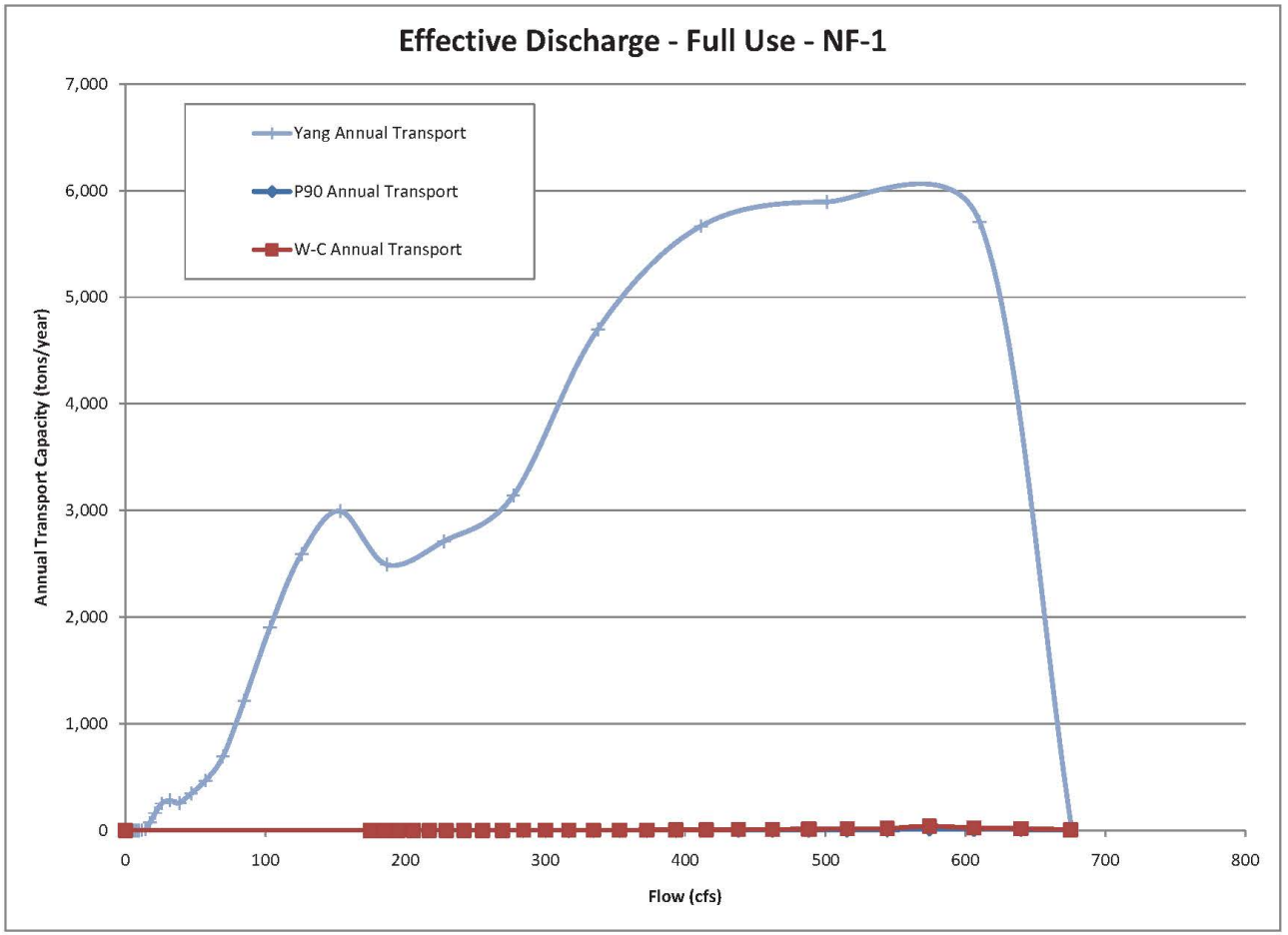


Figure H-9.79
No Action
NF-1: North Fork South Platte near Shawnee

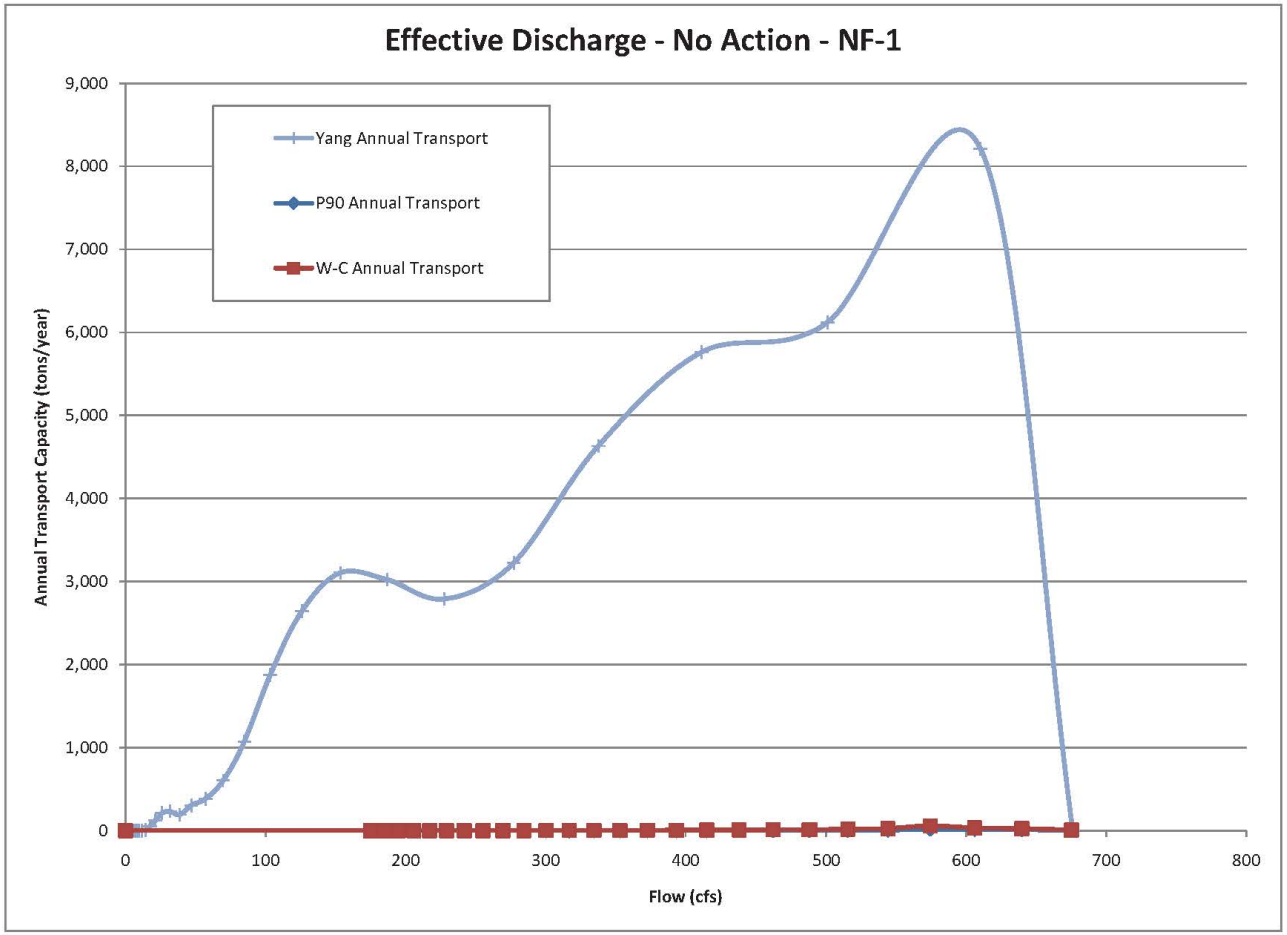


Figure H-9.80
Alternative 1A
NF-1: North Fork South Platte near Shawnee

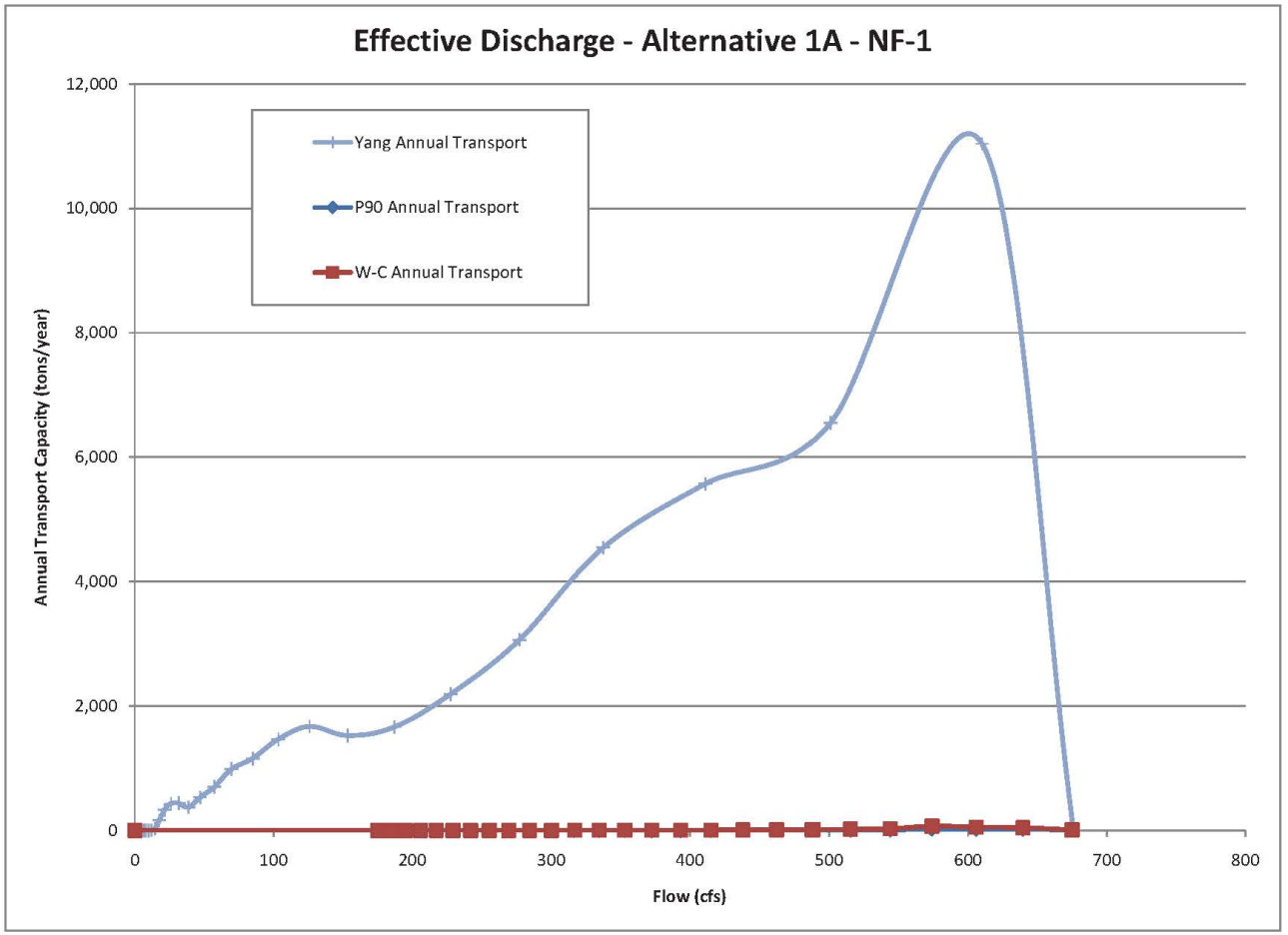


Figure H-9.81
Alternative 8A
NF-1: North Fork South Platte near Shawnee

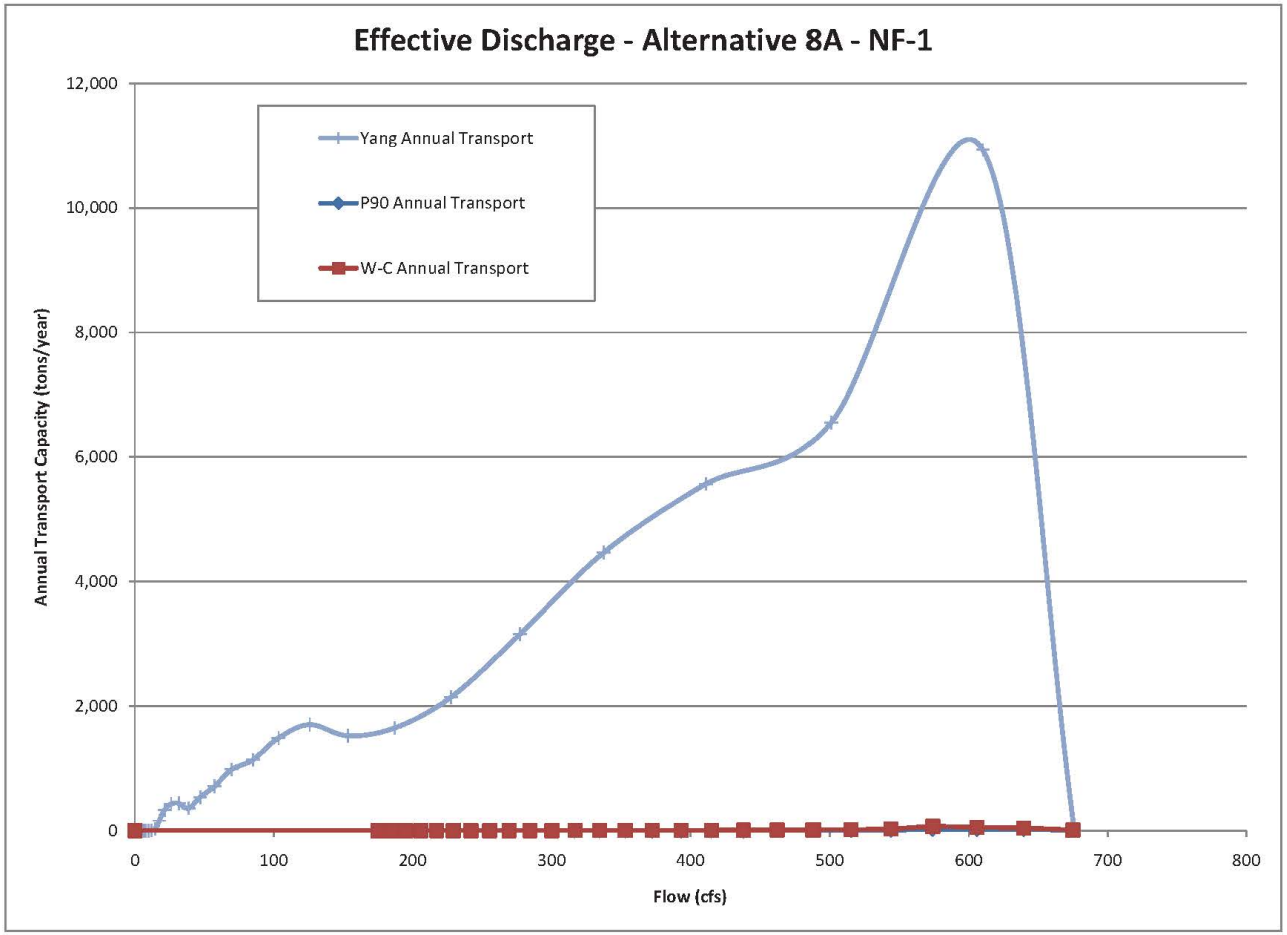


Figure H-9.82
Current Conditions
NF-2: North Fork South Platte near Pine

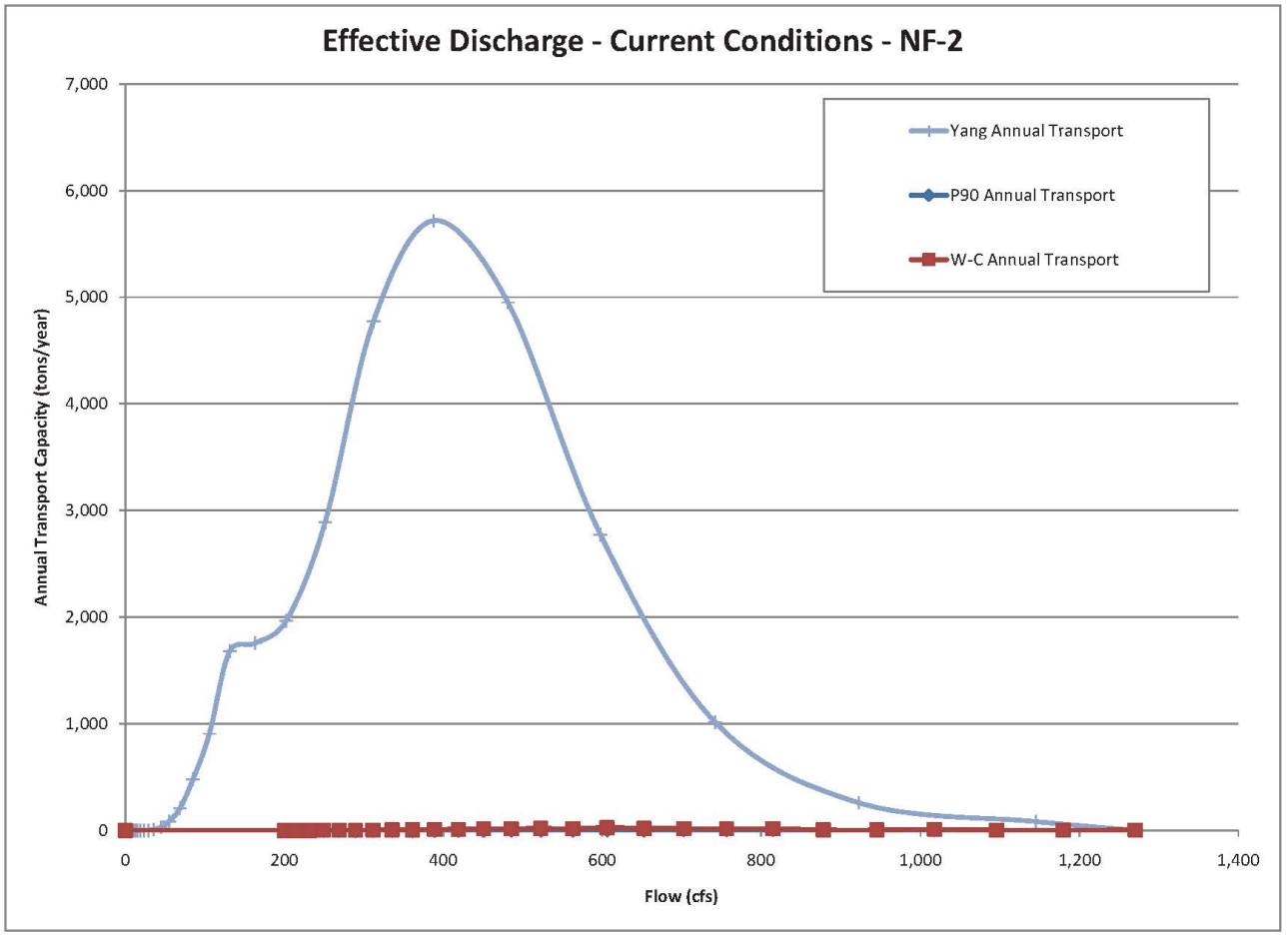


Figure H-9.83
Full Use
NF-2: North Fork South Platte near Pine

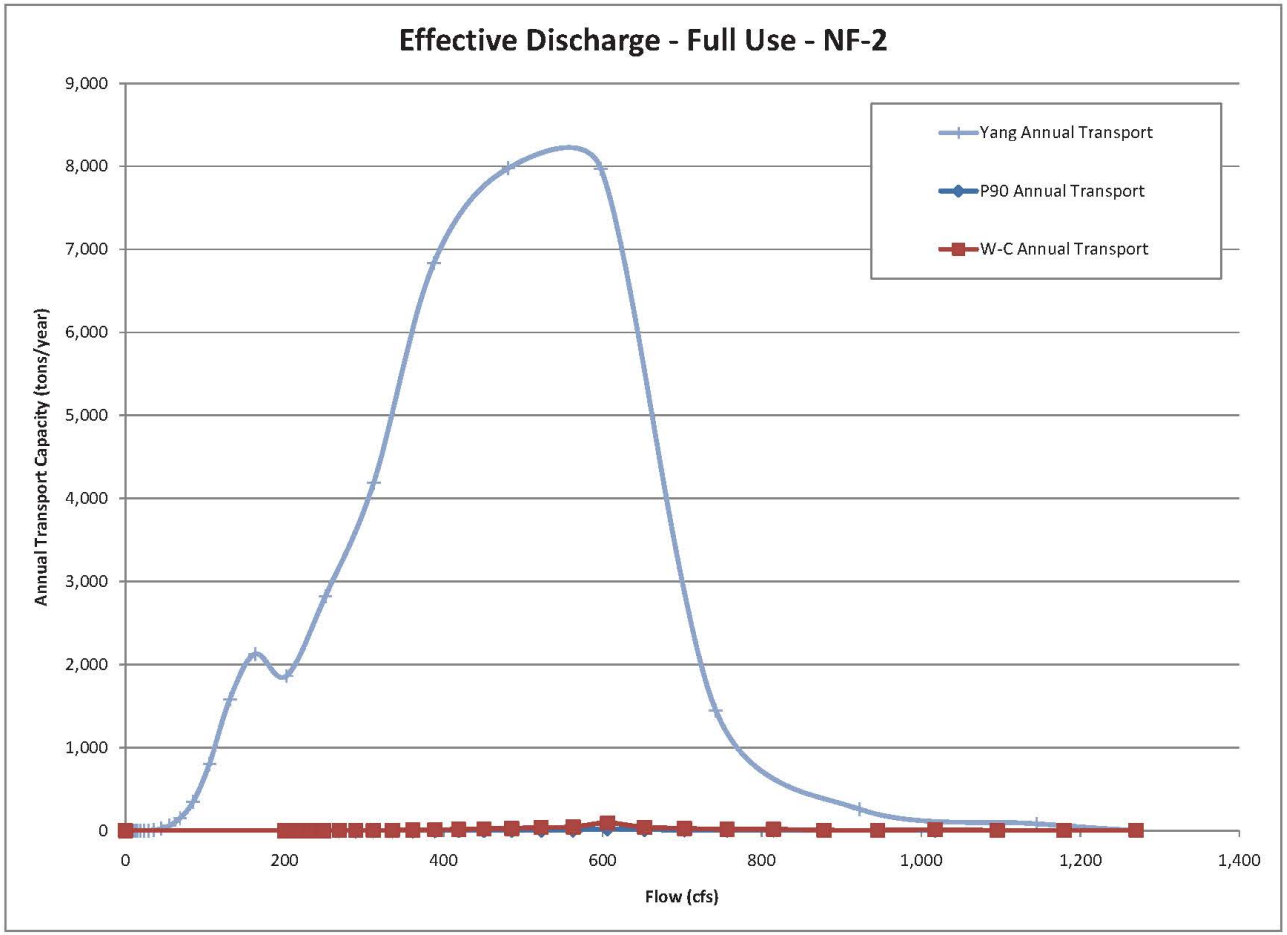


Figure H-9.84
No Action
NF-2: North Fork South Platte near Pine

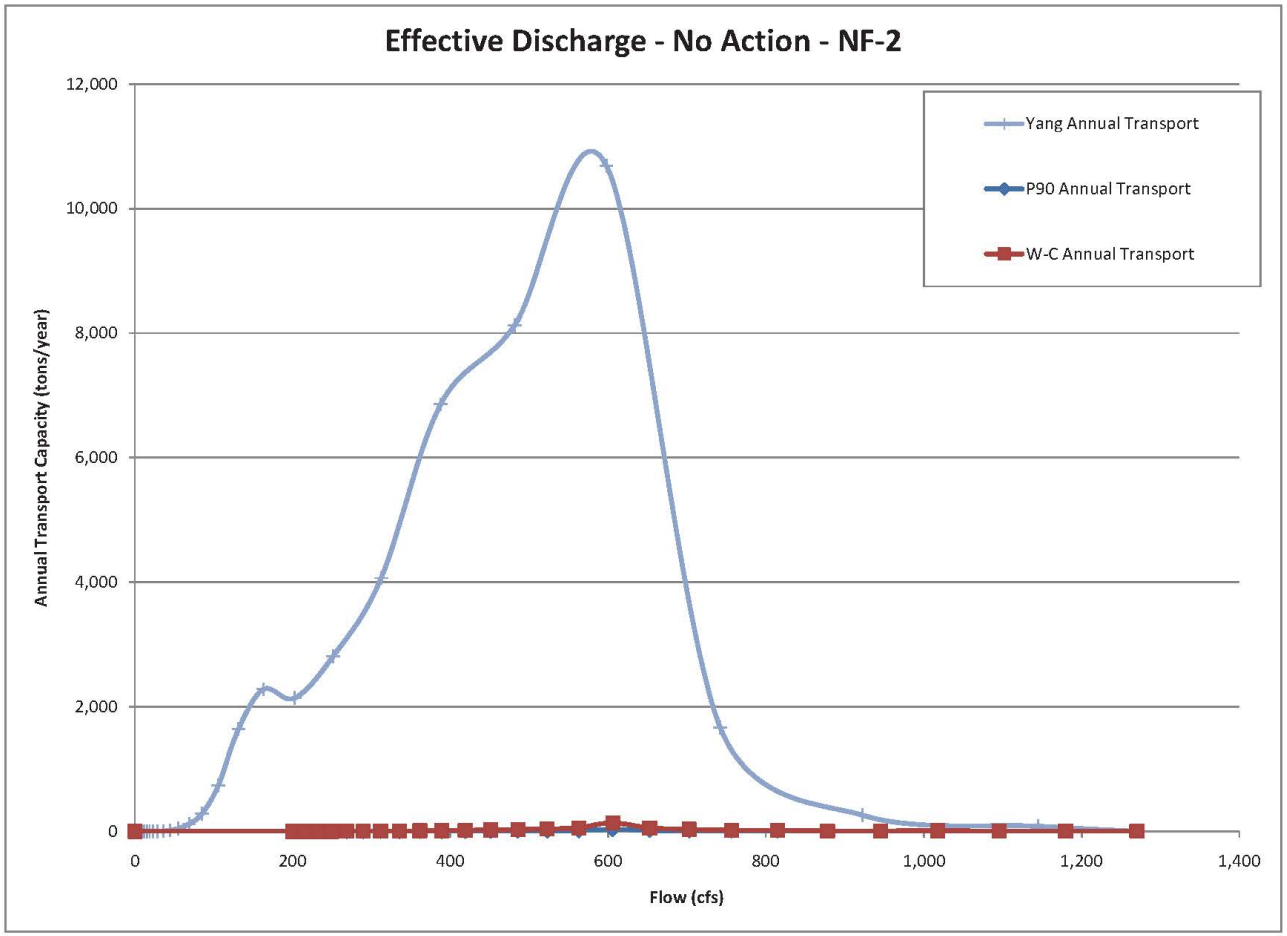


Figure H-9.85
Alternative 1A
NF-2: North Fork South Platte near Pine

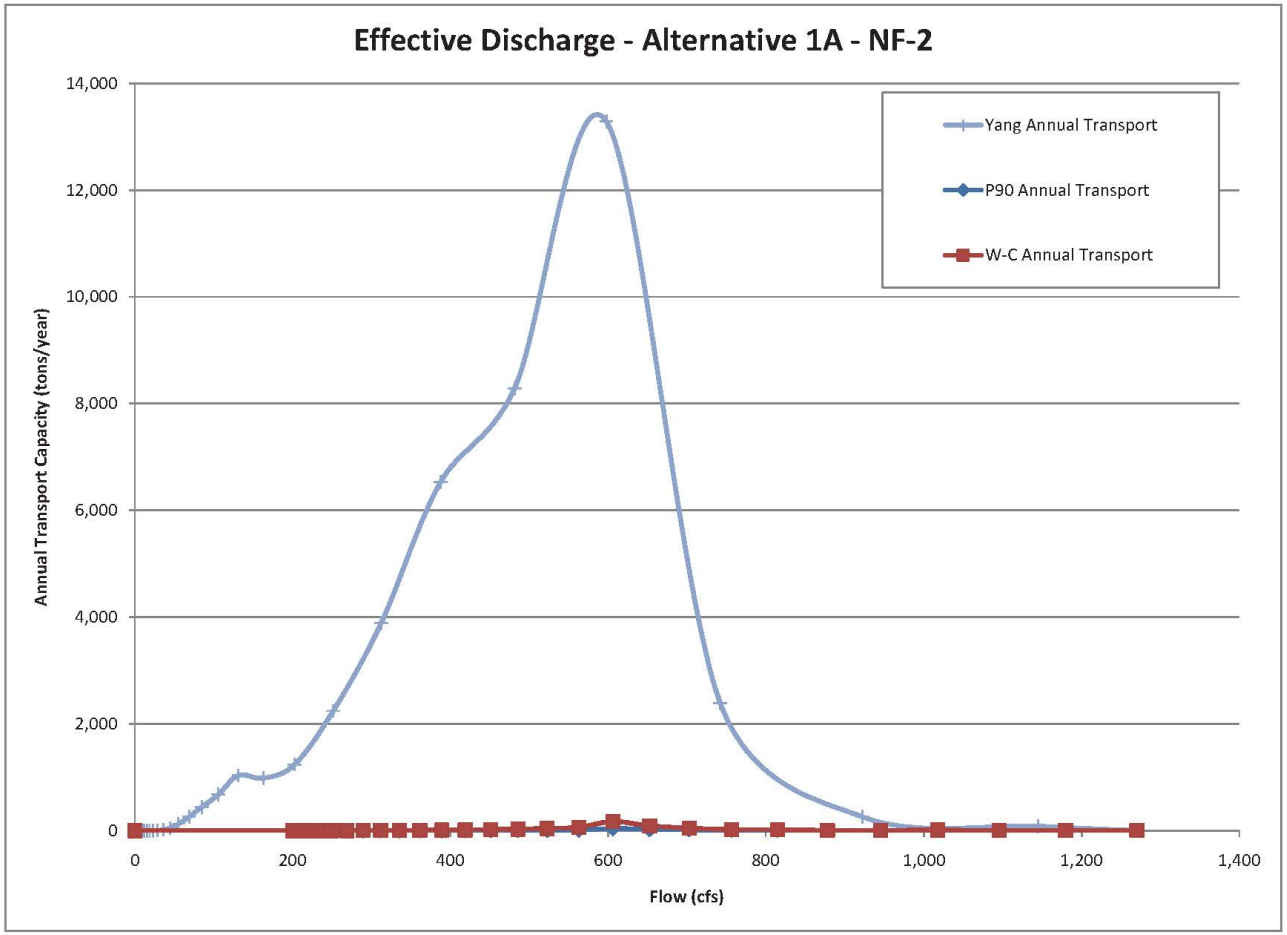


Figure H-9.86
Alternative 8A
NF-2: North Fork South Platte near Pine

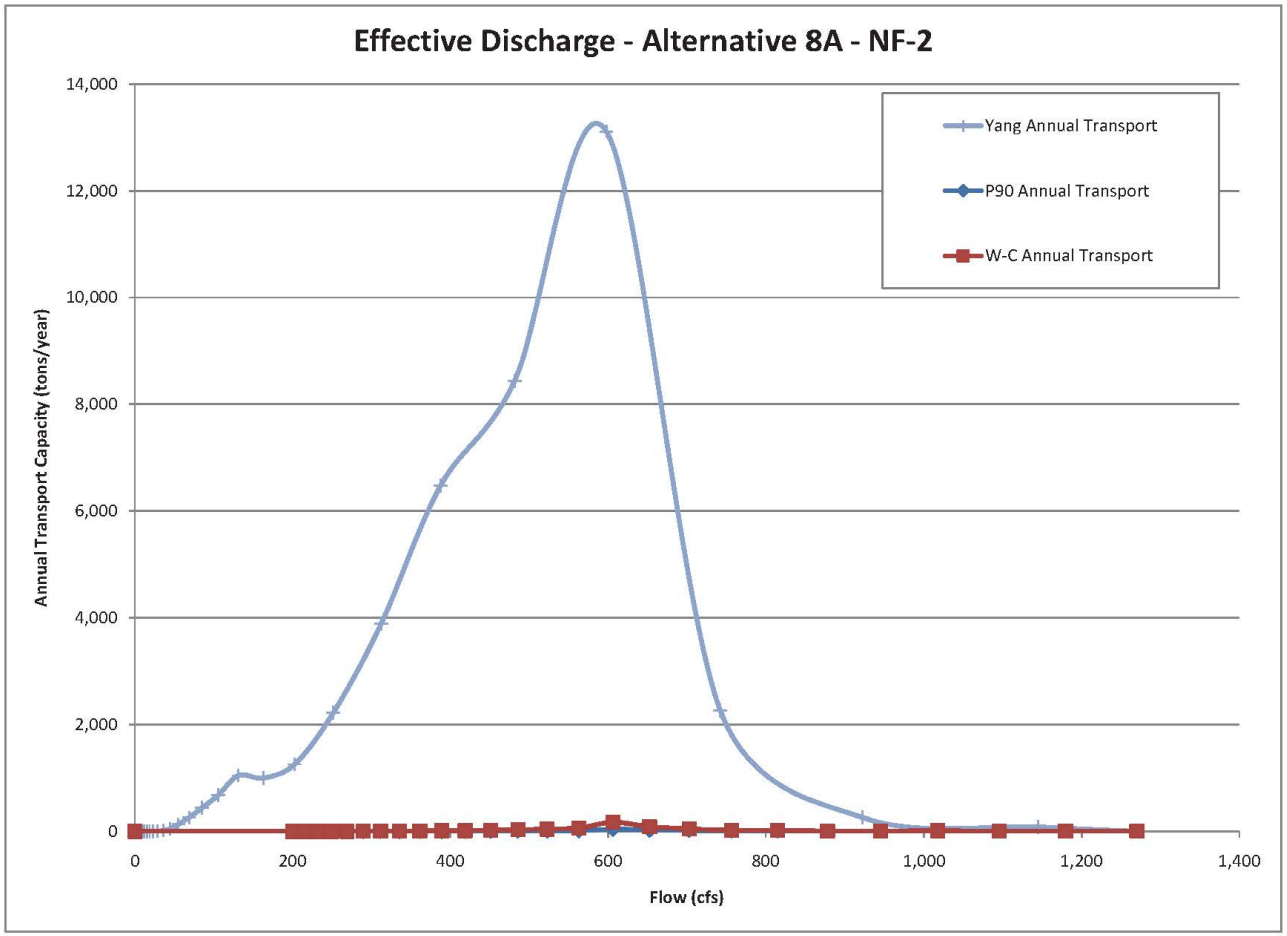


Figure H-9.87
Current Conditions
SBC-1: South Boulder Creek above Rollinsville

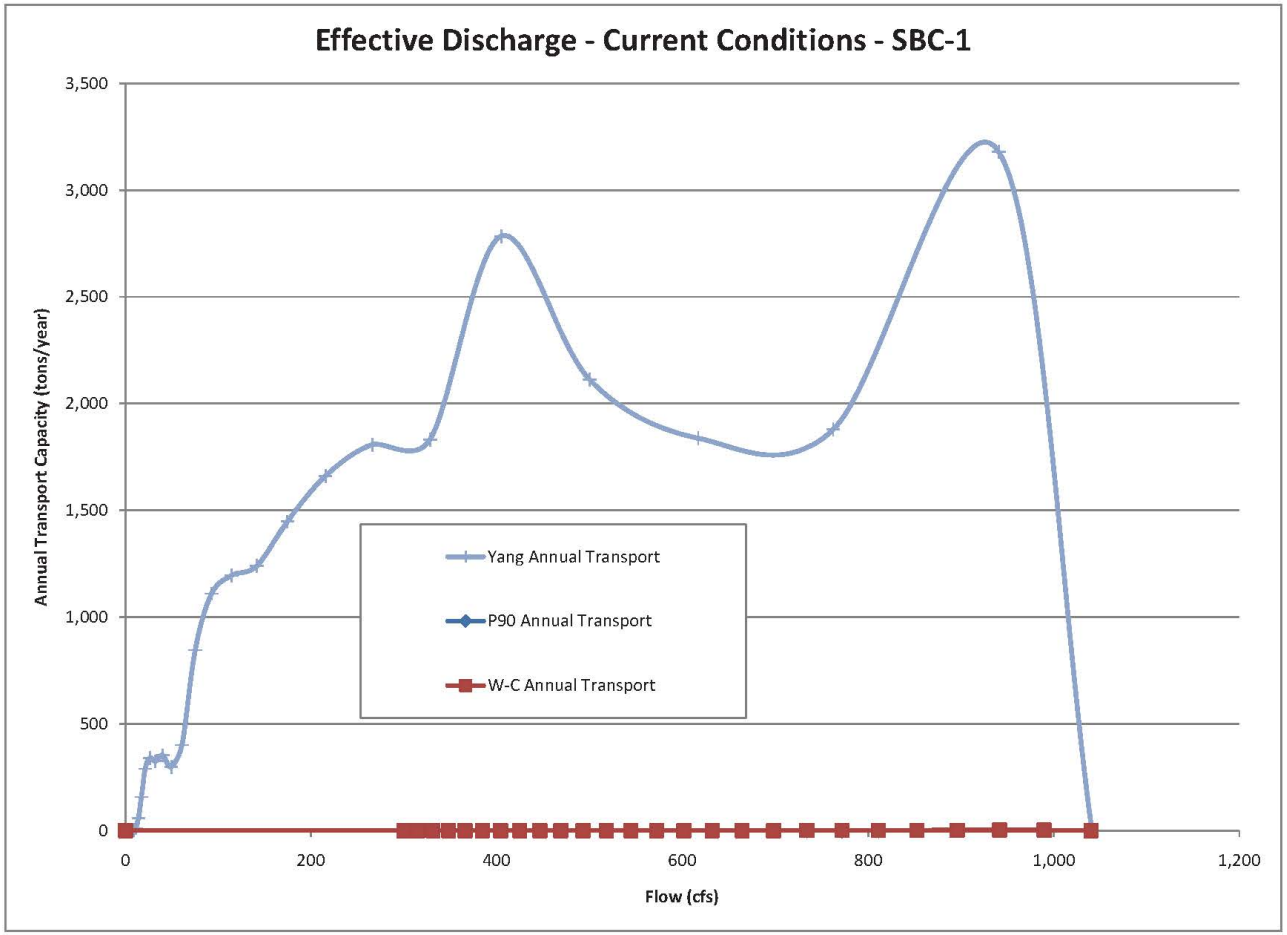


Figure H-9.88
Full Use
SBC-1: South Boulder Creek above Rollinsville

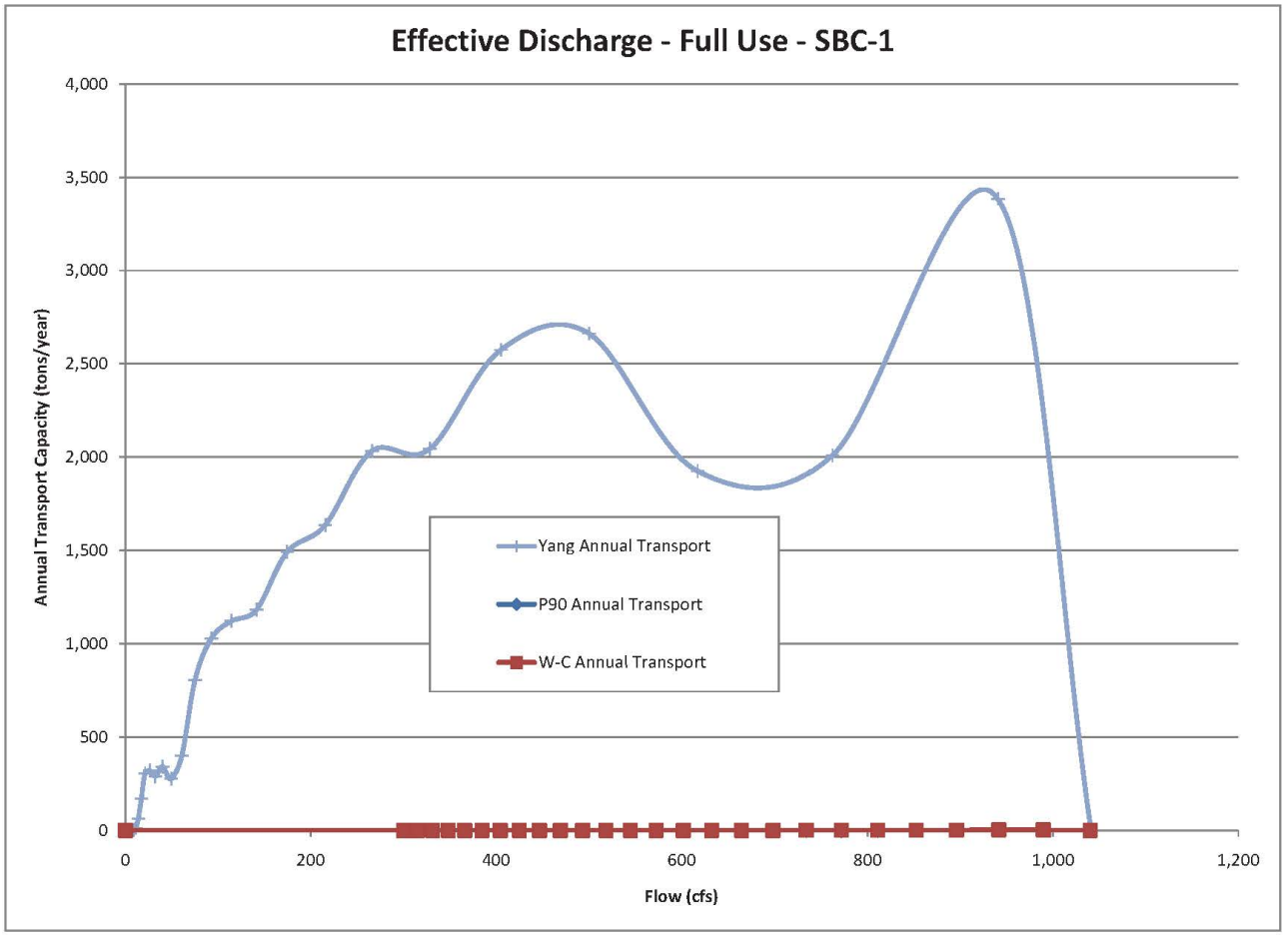


Figure H-9.89
No Action
SBC-1: South Boulder Creek above Rollinsville

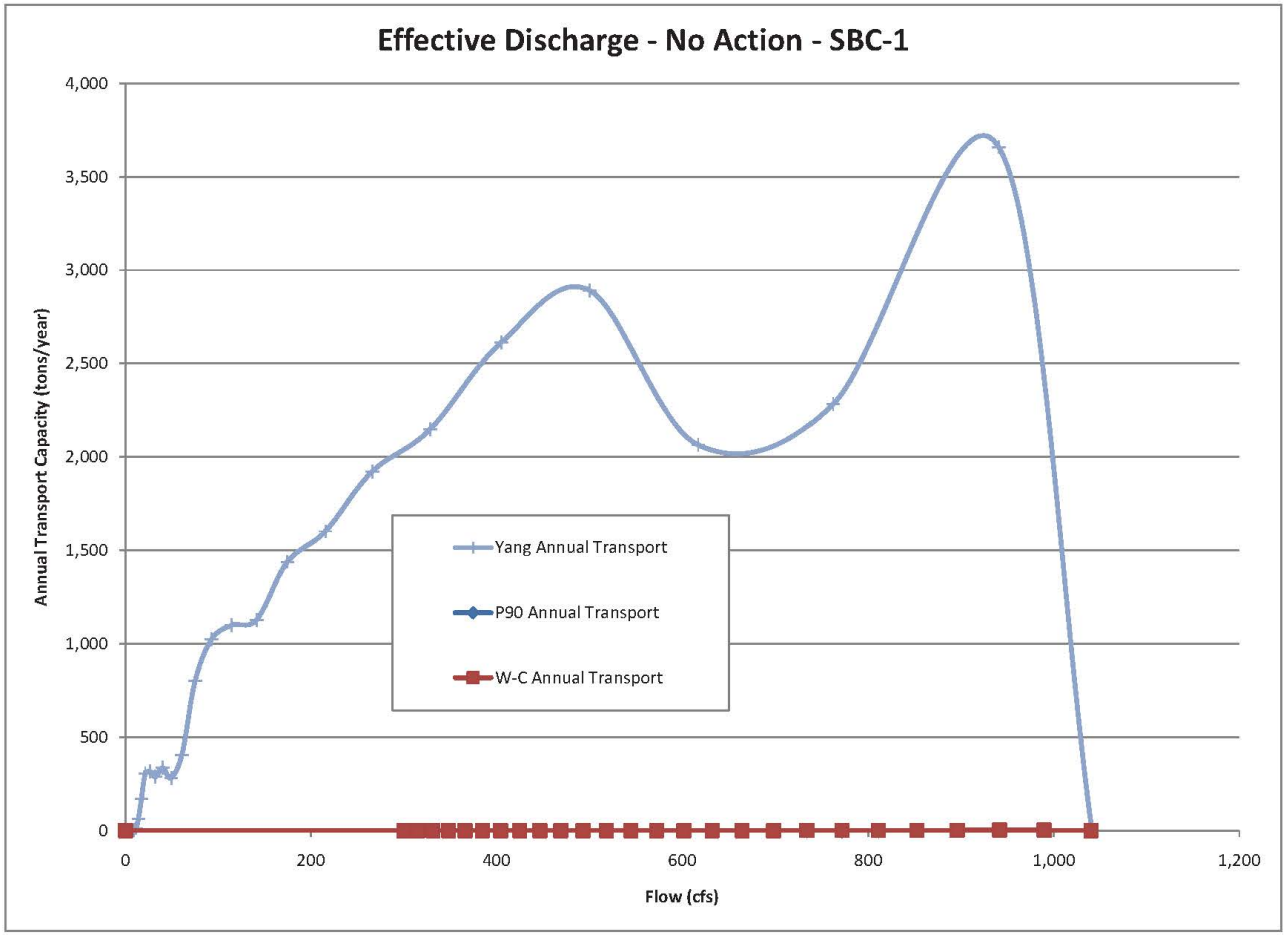


Figure H-9.90
Alternative 1A
SBC-1: South Boulder Creek above Rollinsville

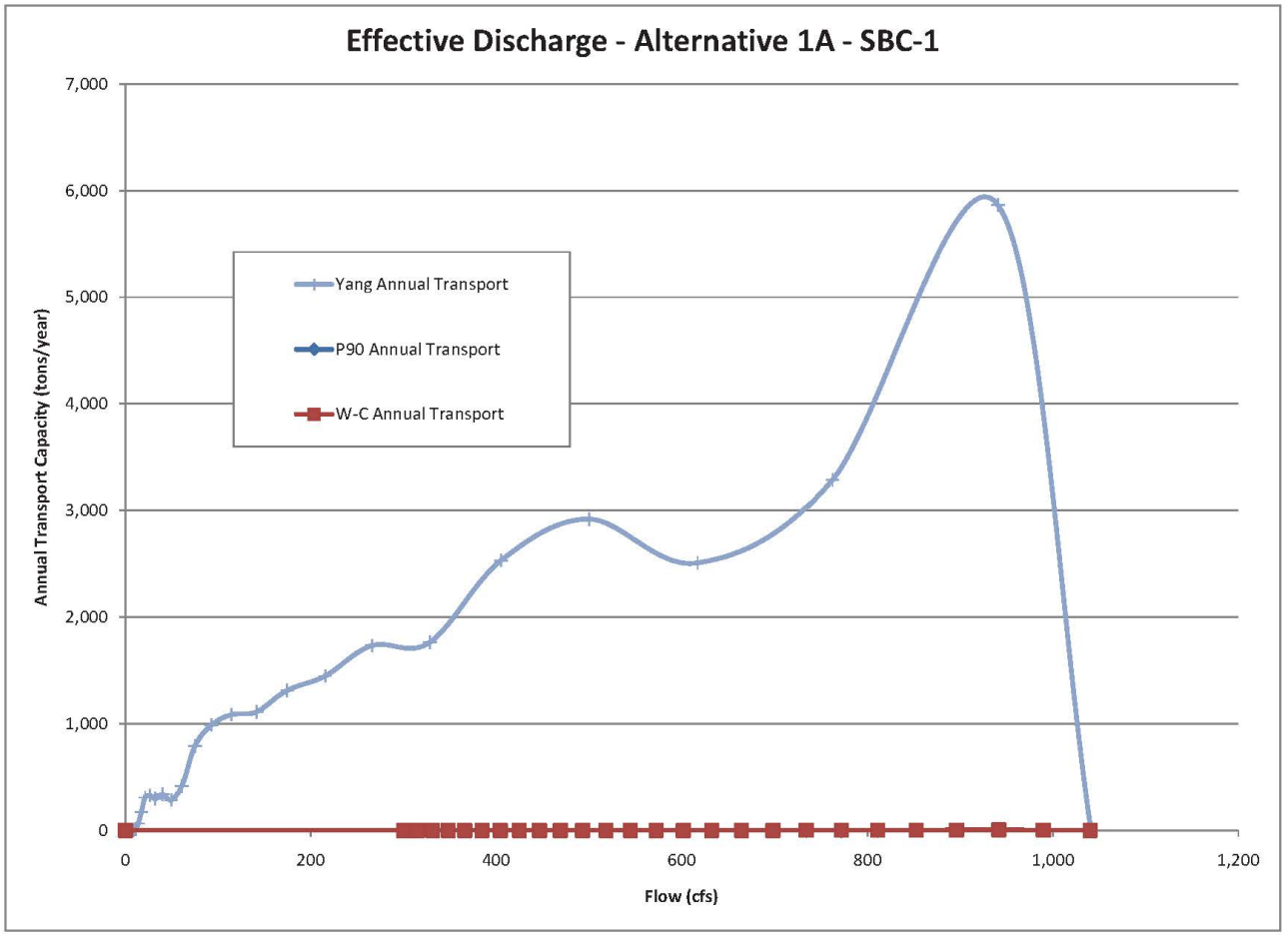


Figure H-9.91
Alternative 8A
SBC-1: South Boulder Creek above Rollinsville

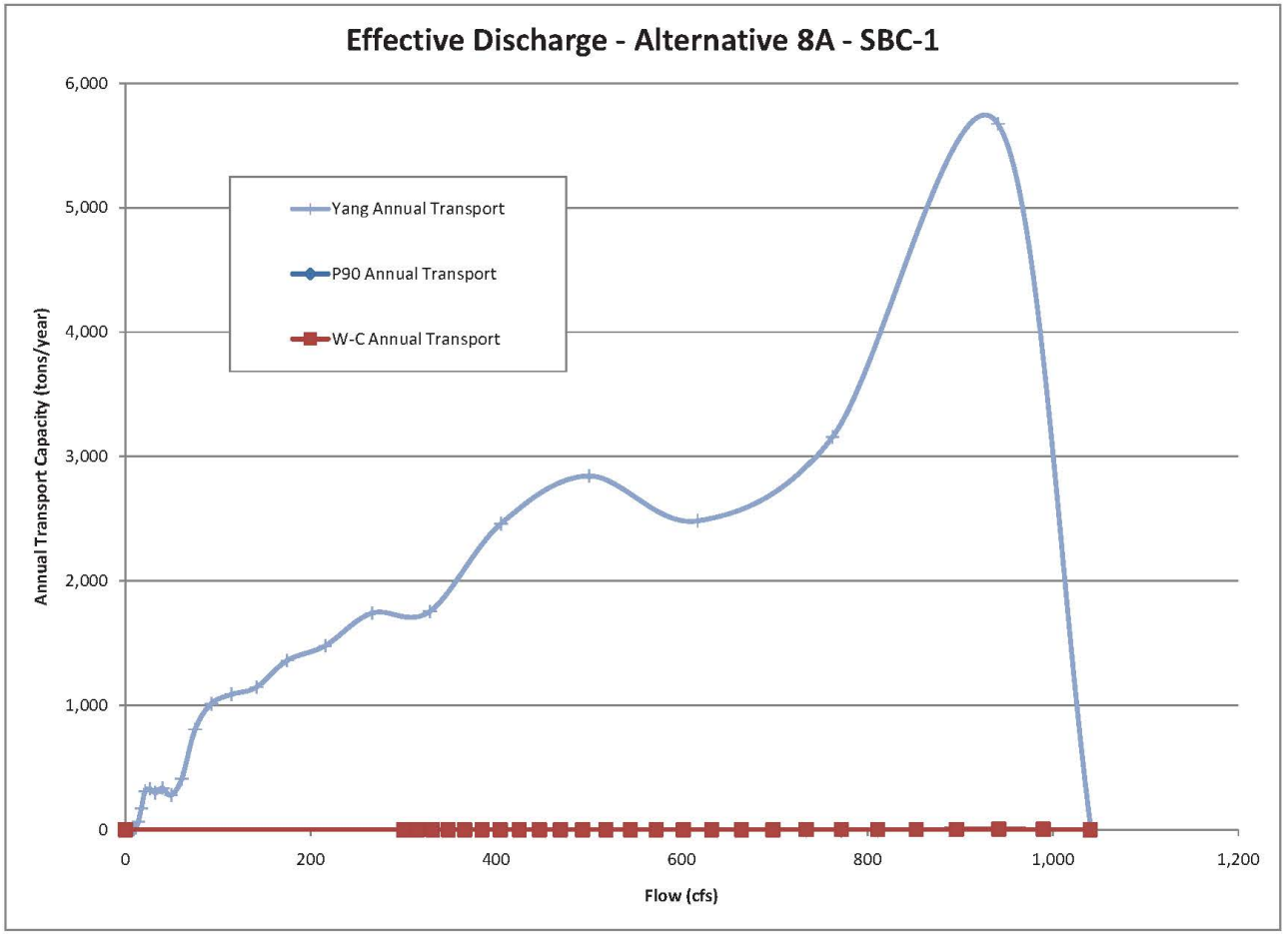


Figure H-9.92
Current Conditions
SBC-3: South Boulder Creek below Gross Reservoir

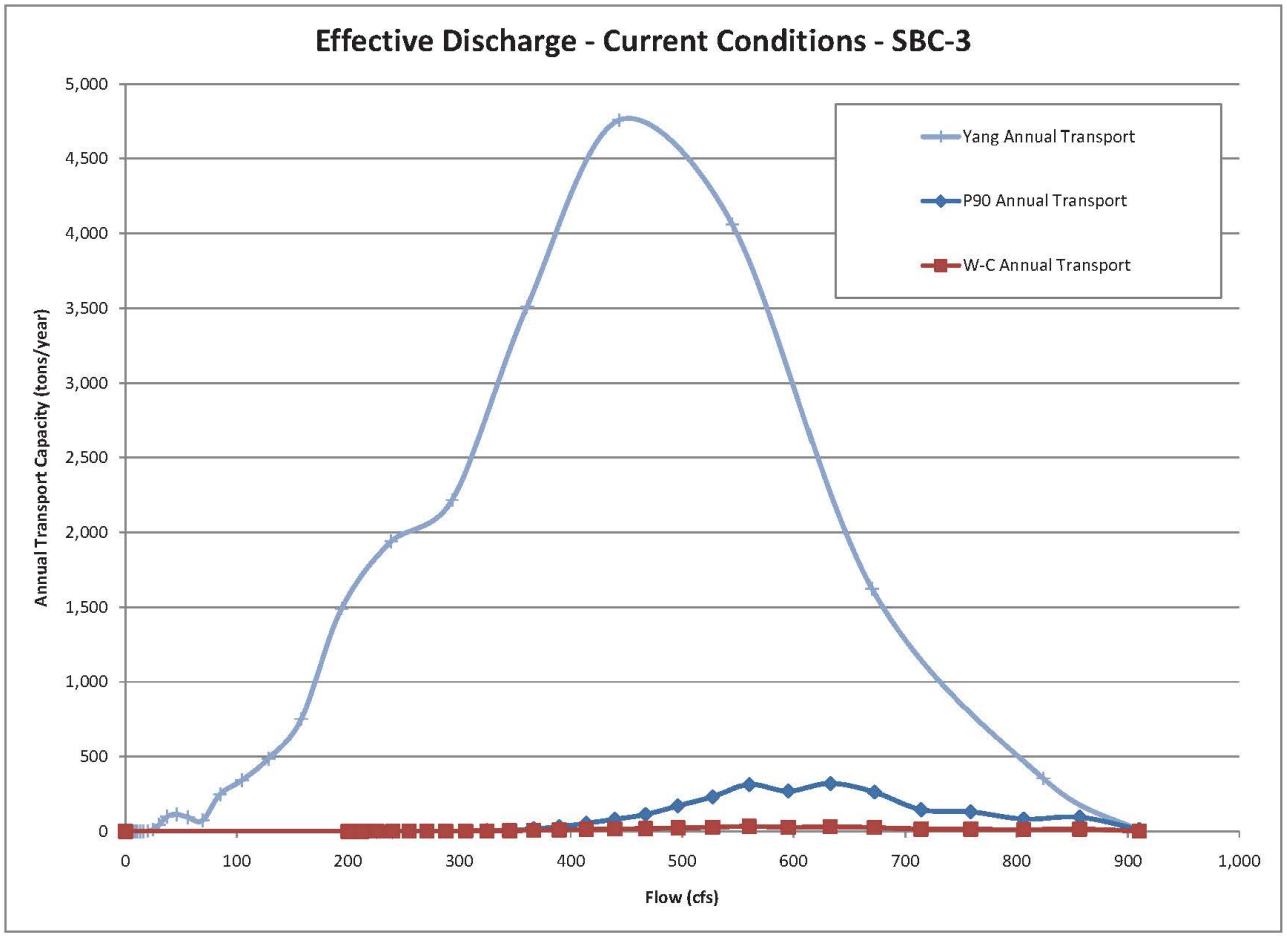


Figure H-9.93
Full Use
SBC-3: South Boulder Creek below Gross Reservoir

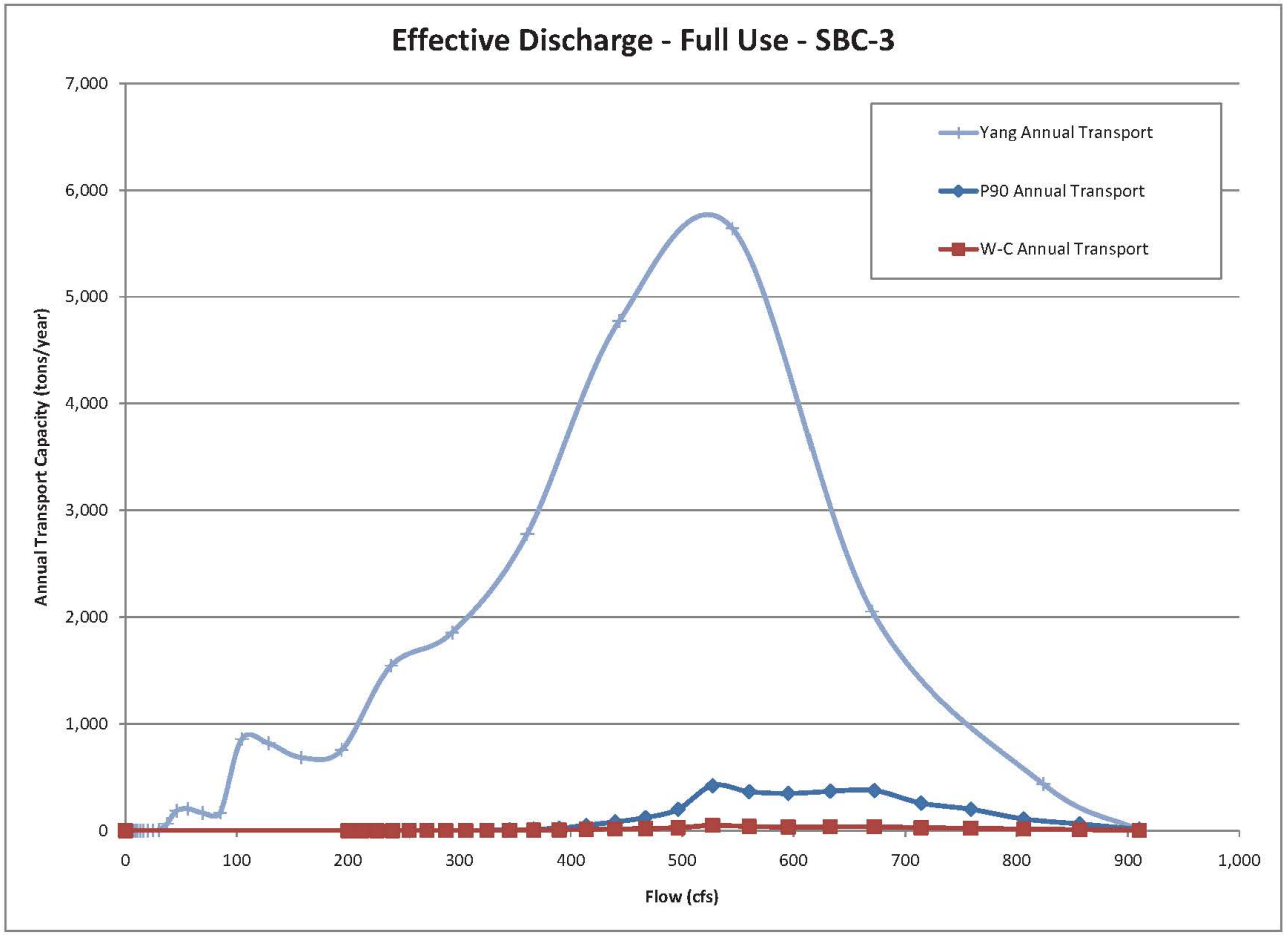


Figure H-9.94
No Action
SBC-3: South Boulder Creek below Gross Reservoir

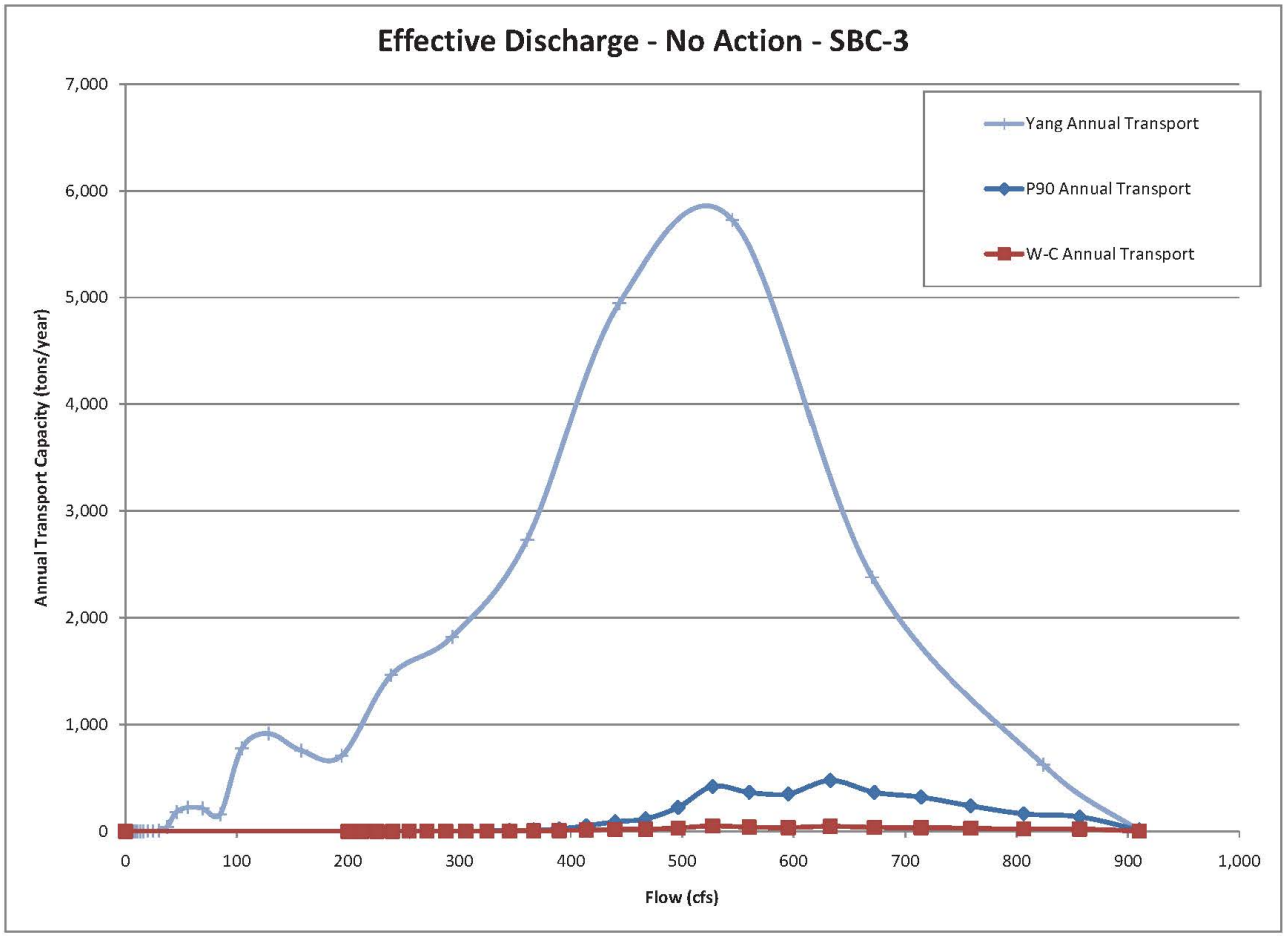


Figure H-9.95
Alternative 1A
SBC-3: South Boulder Creek below Gross Reservoir

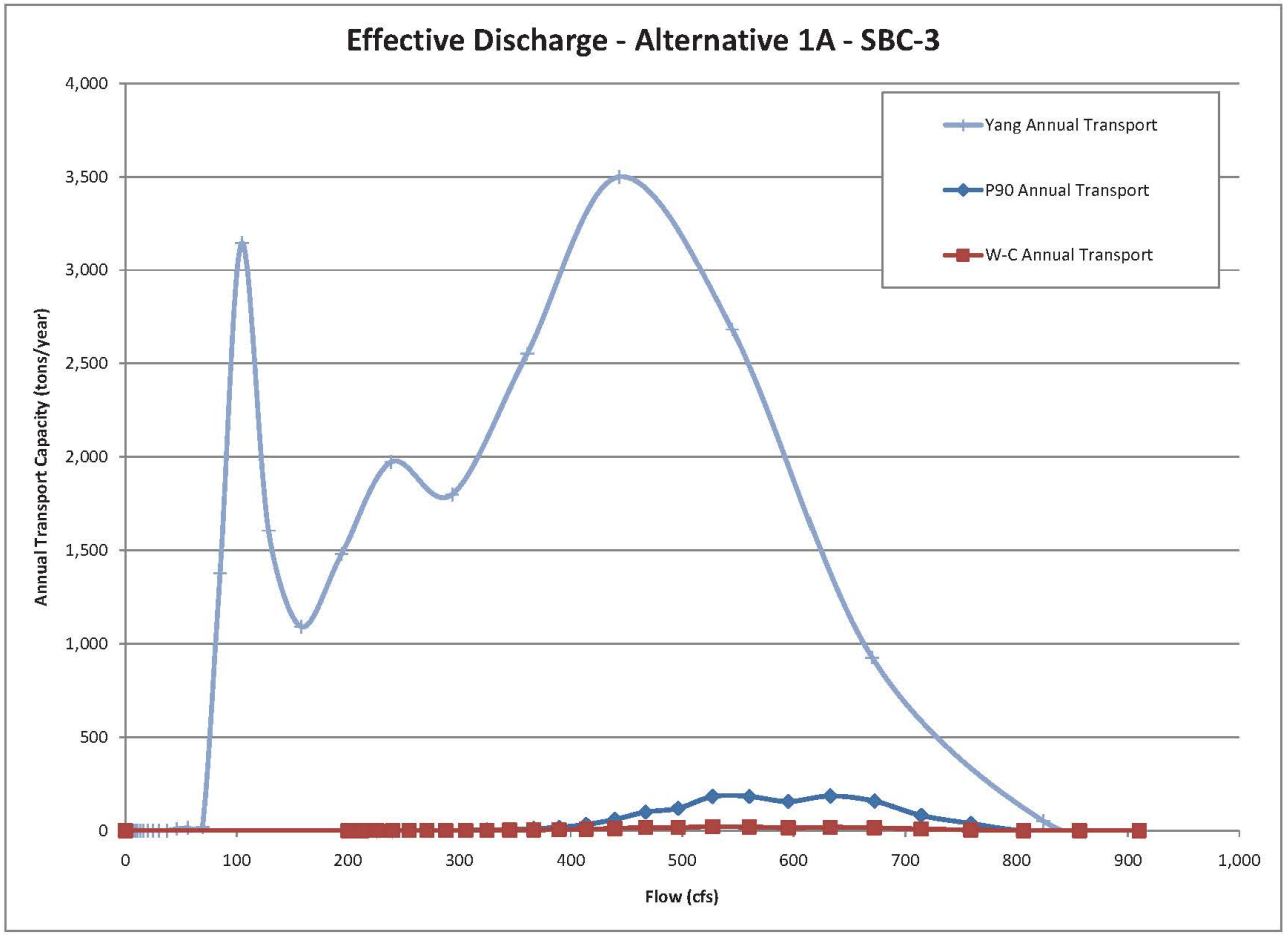
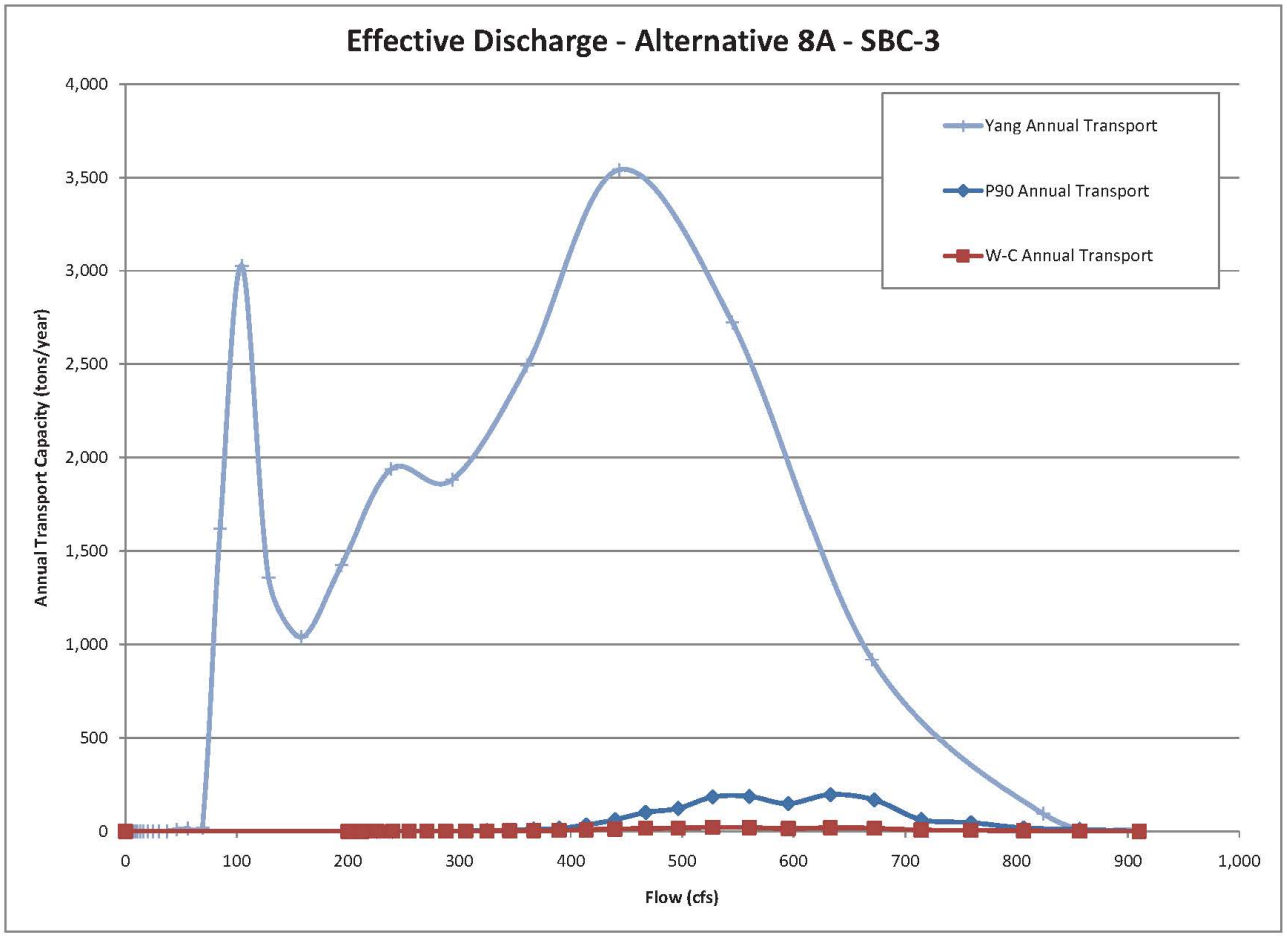


Figure H-9.96
Alternative 8A
SBC-3: South Boulder Creek below Gross Reservoir



Appendix H-10
Sediment Supply and Bedload Capacity Curves

- Figure H-10.1 Bedload Capacity Comparison – FR-1: Fraser River near Winter Park Gage
- Figure H-10.2 Bedload Capacity Comparison – FR-2: Fraser River near Tabernash
- Figure H-10.3 Bedload Capacity Comparison – FR-3: St. Louis Creek
- Figure H-10.4 Bedload Capacity Comparison – FR-4: Ranch Creek
- Figure H-10.5 Bedload Capacity Comparison – FR-5: Fraser River Downstream of Denver Water's Diversion
- Figure H-10.6 Bedload Capacity Comparison – FR-6: Jim Creek
- Figure H-10.7 Bedload Capacity Comparison – FR-7: Vasquez Creek
- Figure H-10.8 Bedload Capacity Comparison – WF-1: Williams Fork near Sugarloaf Campground
- Figure H-10.9 Bedload Capacity Comparison – WF-2: Williams Fork below Steelman Creek
- Figure H-10.10 Bedload Capacity Comparison – CR-1: Colorado River above Parshall
- Figure H-10.11 Bedload Capacity Comparison – CR-2: Colorado River at Kemp Breeze State Wildlife Area
- Figure H-10.12 Bedload Capacity Comparison – BR-1: Blue River below Boulder Creek
- Figure H-10.13 Bedload Capacity Comparison – NF-1: North Fork South Platte near Shawnee
- Figure H-10.14 Bedload Capacity Comparison – NF-2: North Fork South Platte near Pine
- Figure H-10.15 Bedload Capacity Comparison – SBC-1: South Boulder Creek above Rollinsville
- Figure H-10.16 Bedload Capacity Comparison – SBC-3: South Boulder Creek below Gross Reservoir

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Figure H-10.1
Bedload Capacity Comparison
FR-1: Fraser River near Winter Park Gage

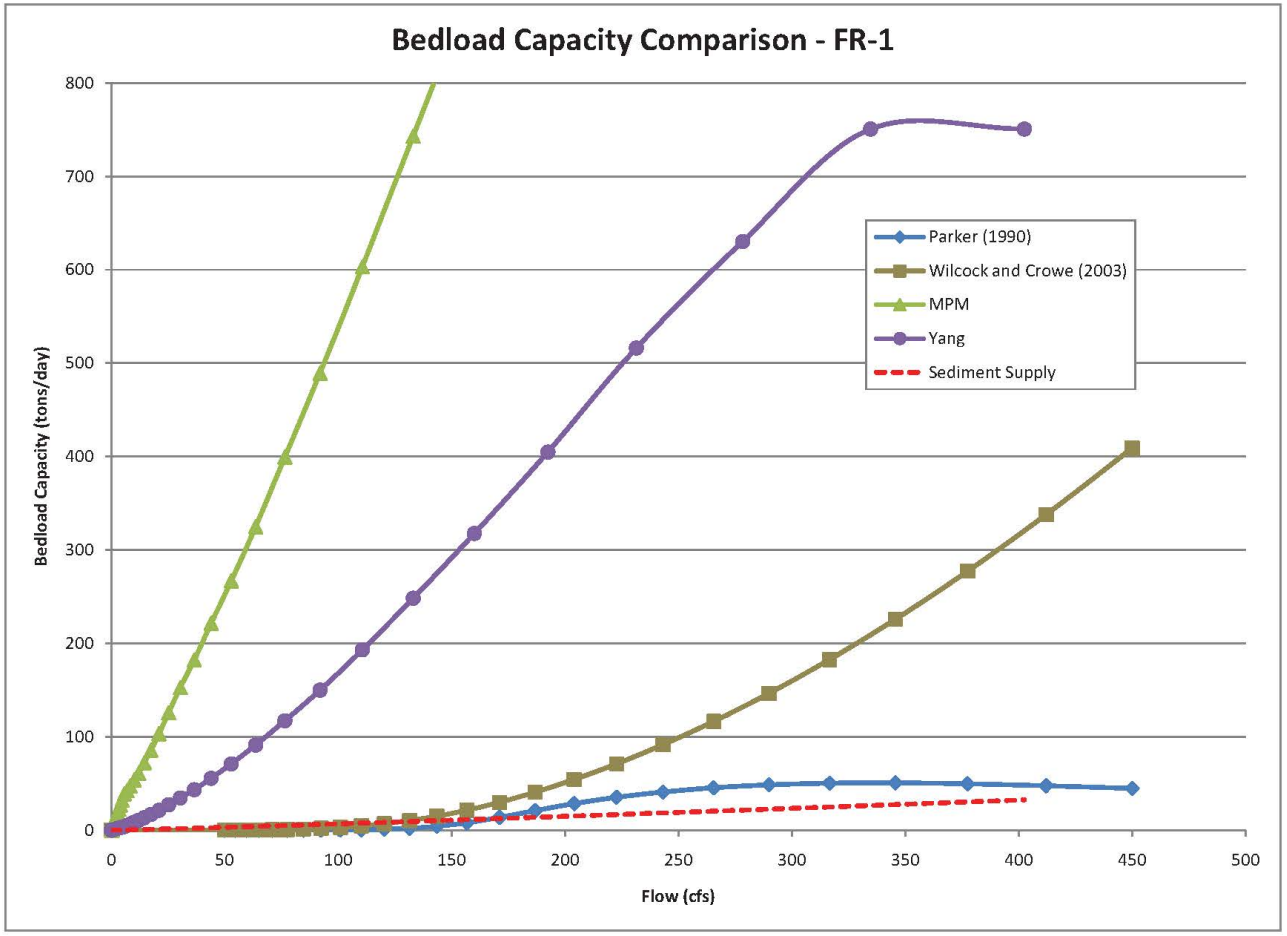


Figure H-10.2
Bedload Capacity Comparison
FR-2: Fraser River near Tabernash

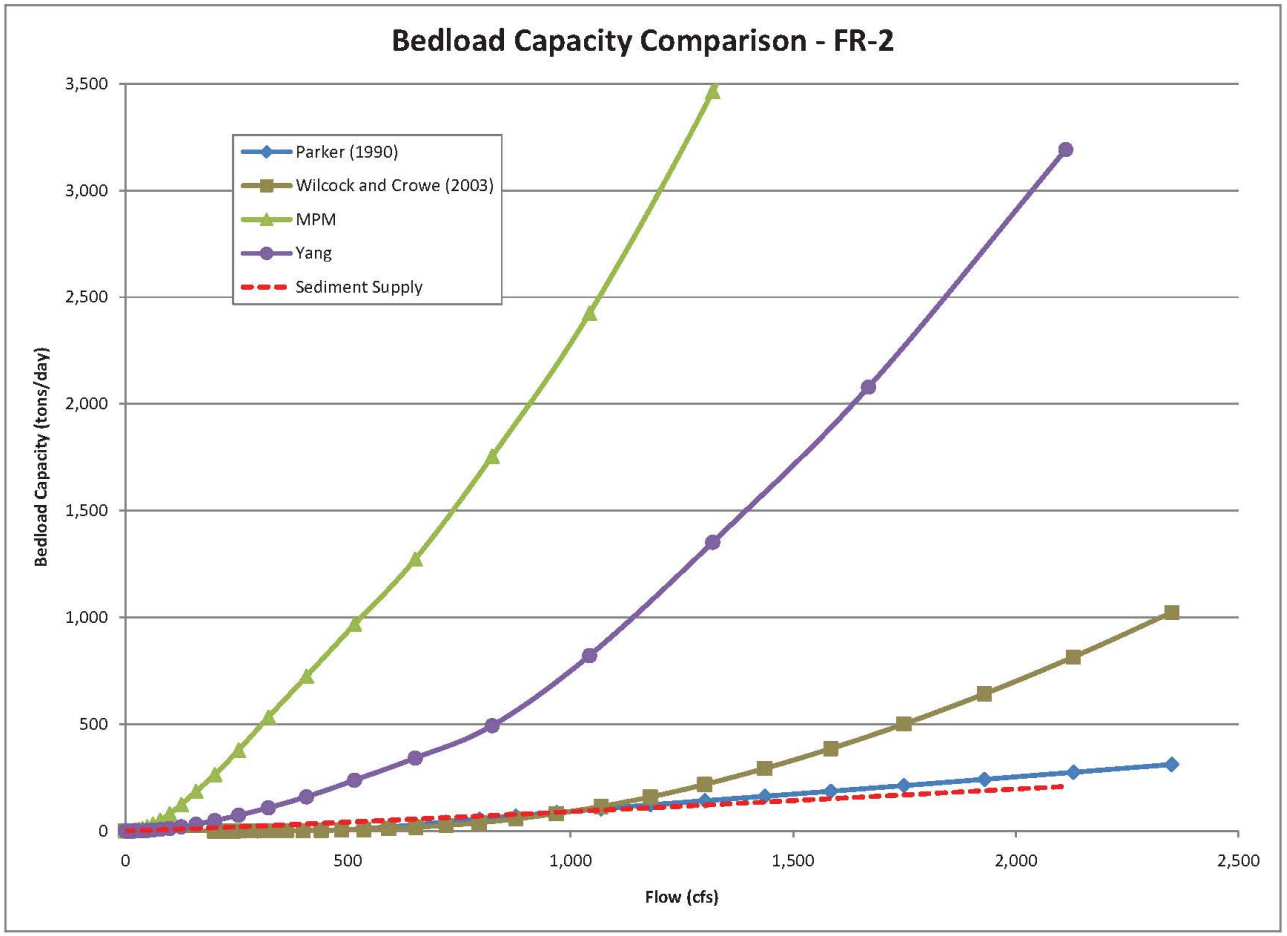


Figure H-10.3
Bedload Capacity Comparison
FR-3: St. Louis Creek

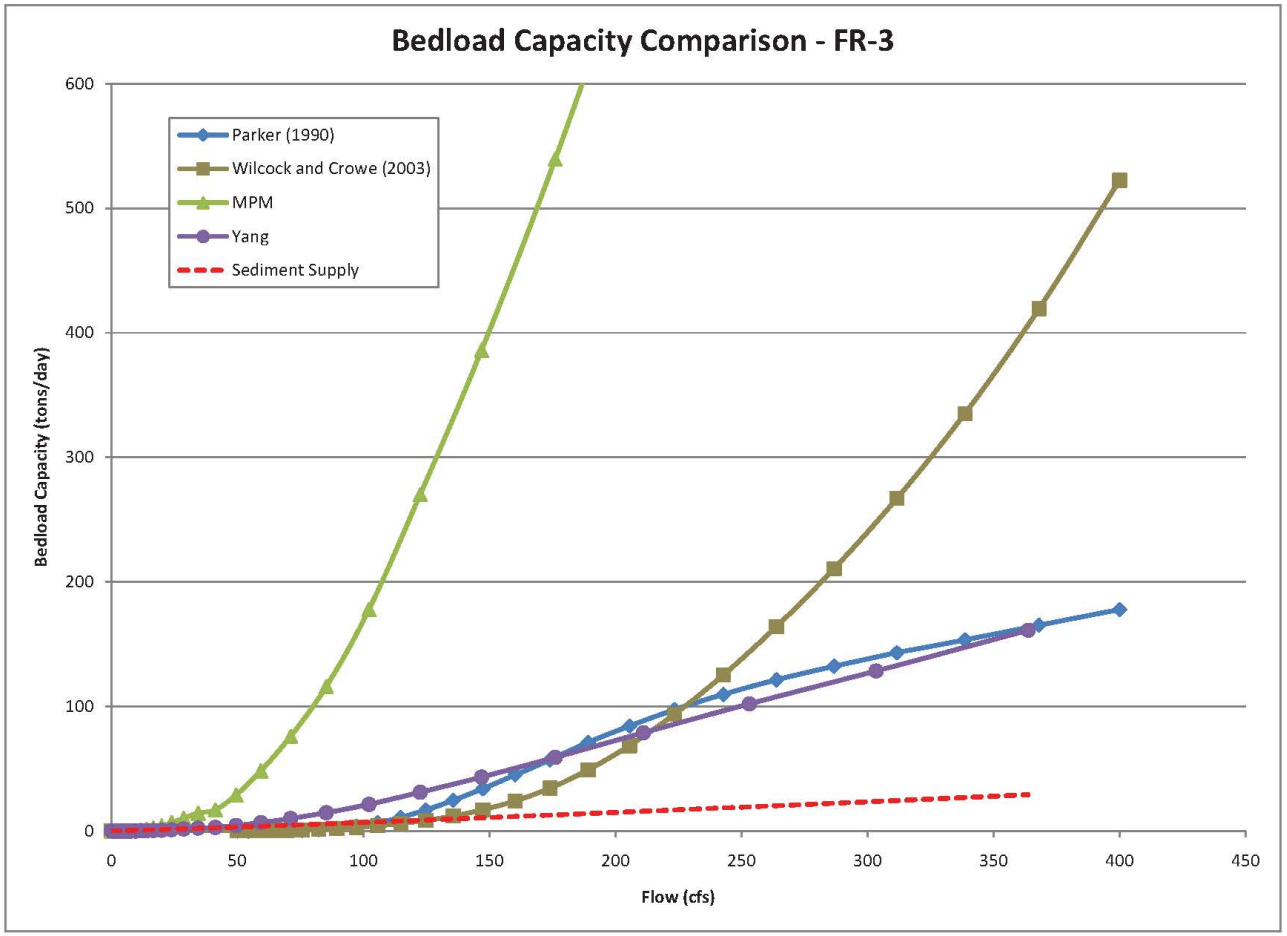


Figure H-10.4
Bedload Capacity Comparison
FR-4: Ranch Creek

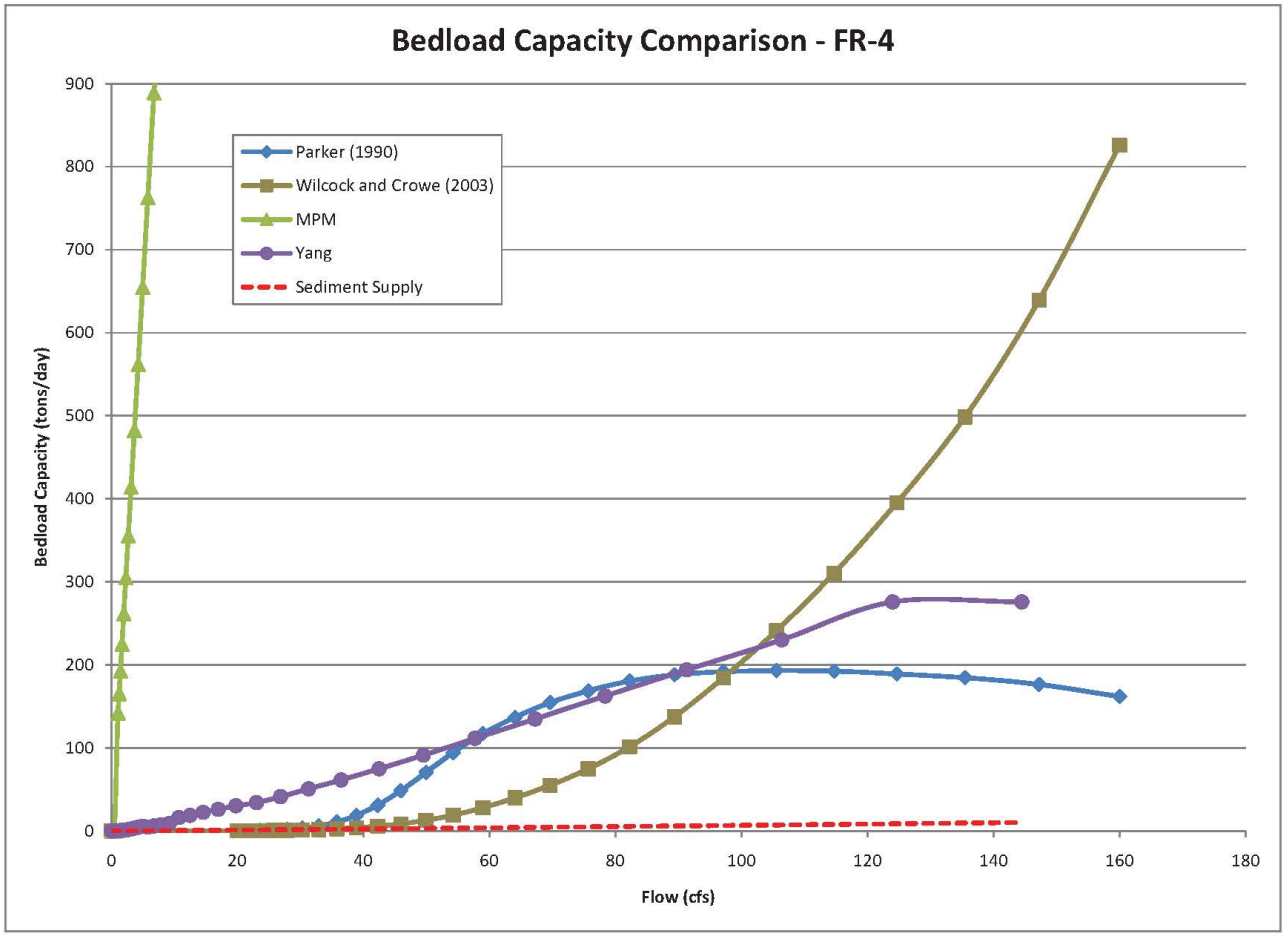


Figure H-10.5
Bedload Capacity Comparison
FR-5: Fraser River Downstream of Denver Water's Diversion

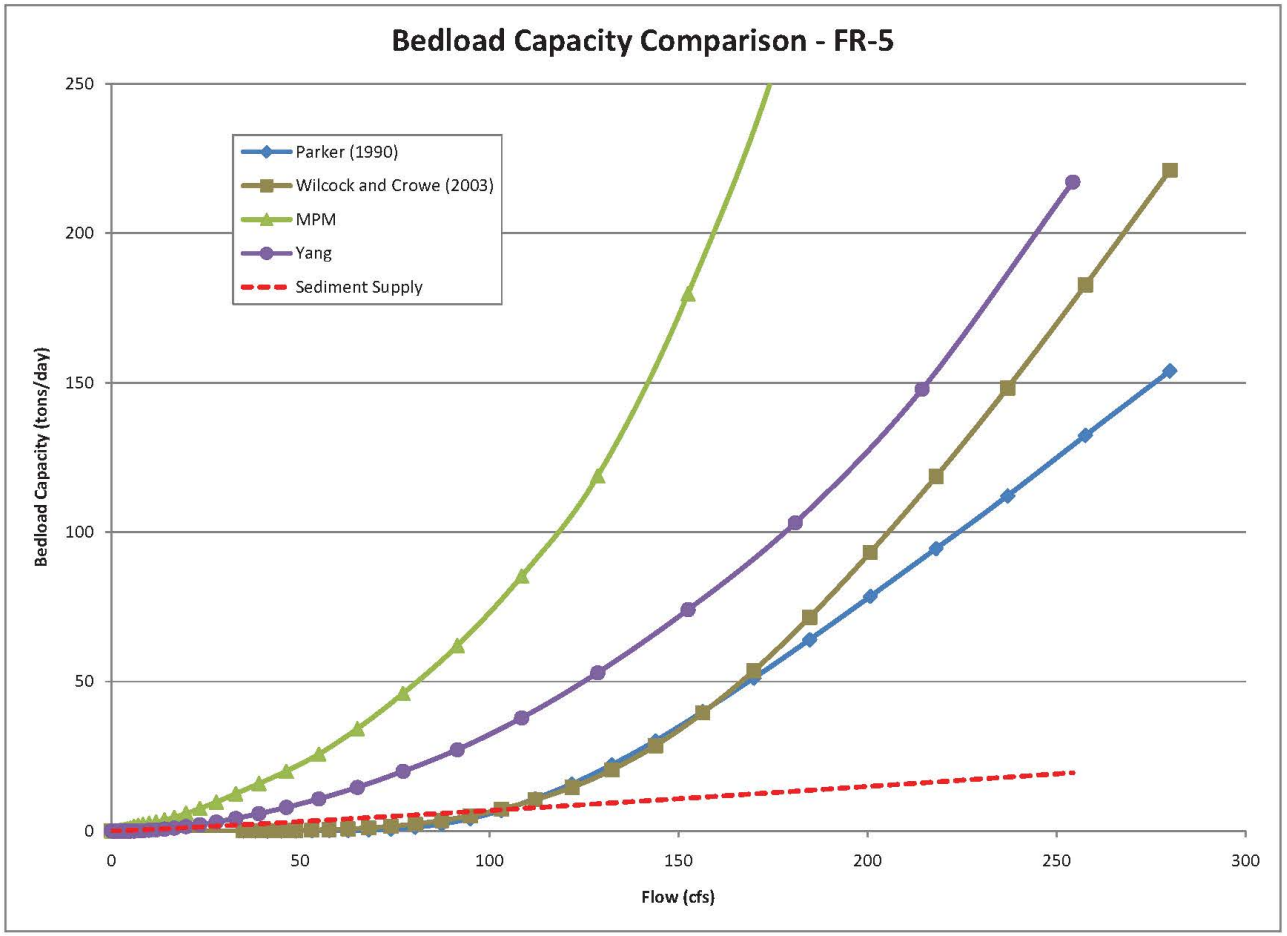


Figure H-10.6
Bedload Capacity Comparison
FR-6: Jim Creek

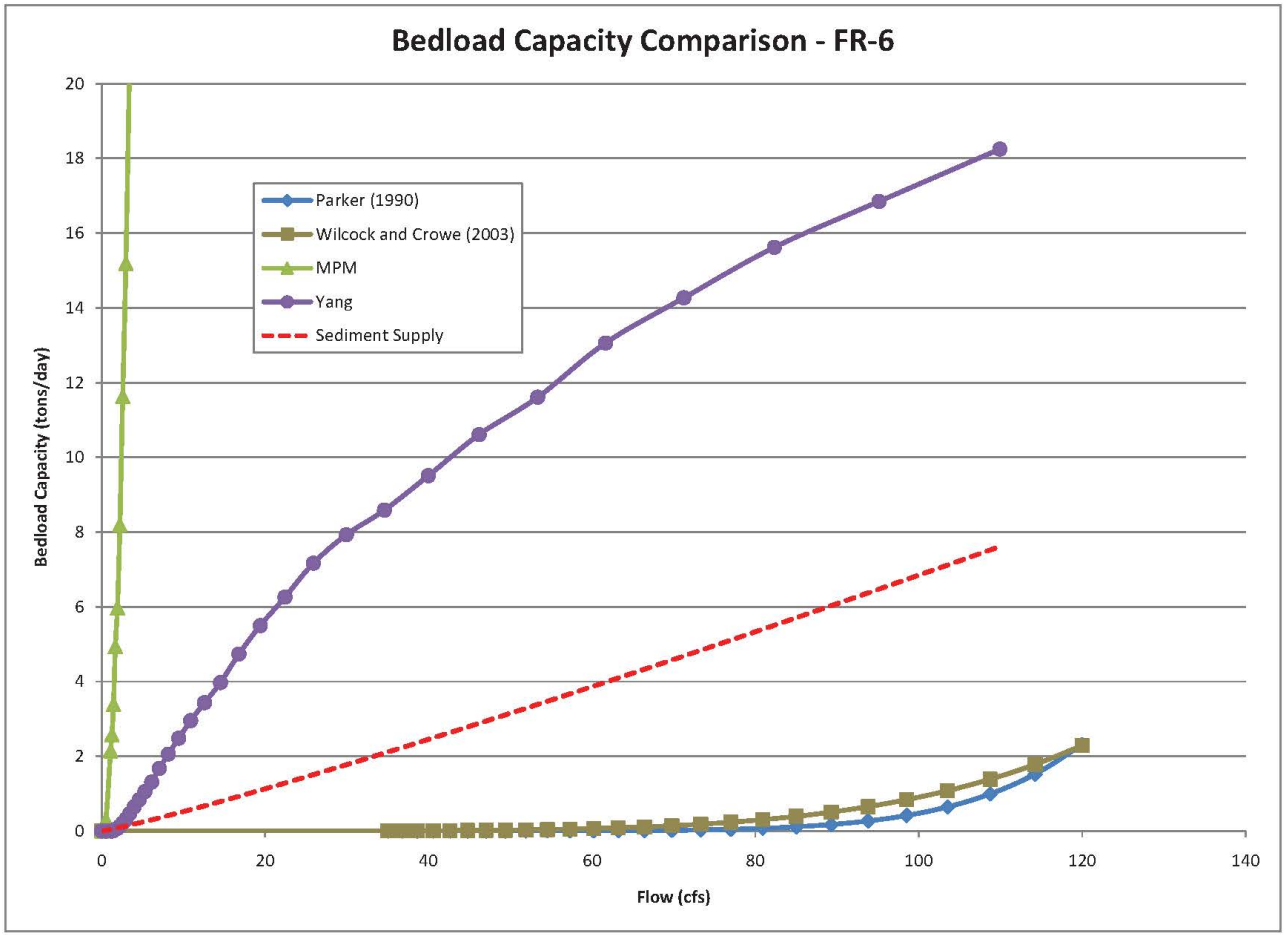


Figure H-10.7
Bedload Capacity Comparison
FR-7: Vasquez Creek

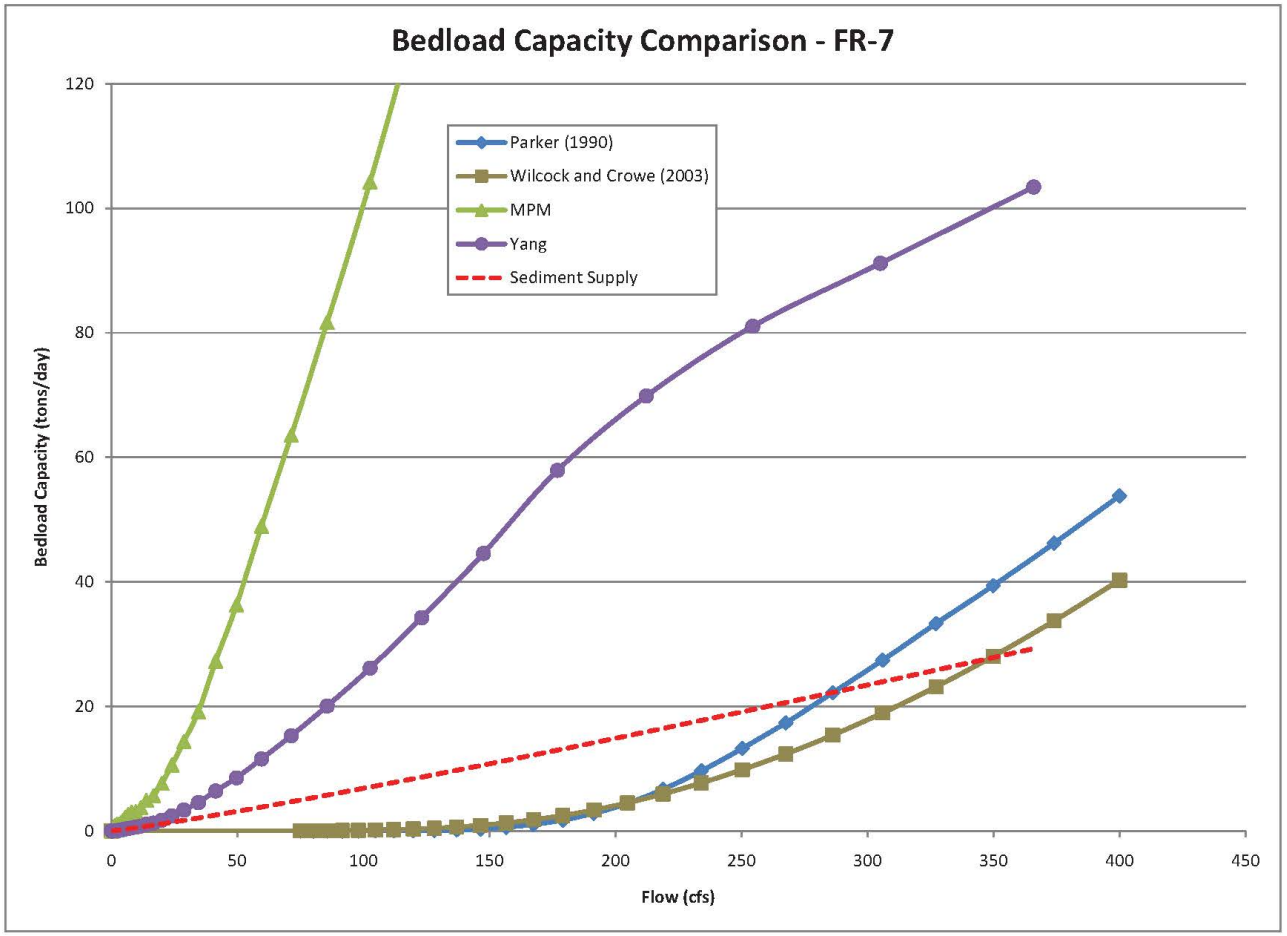


Figure H-10.8
Bedload Capacity Comparison
WF-1: Williams Fork near Sugarloaf Campground

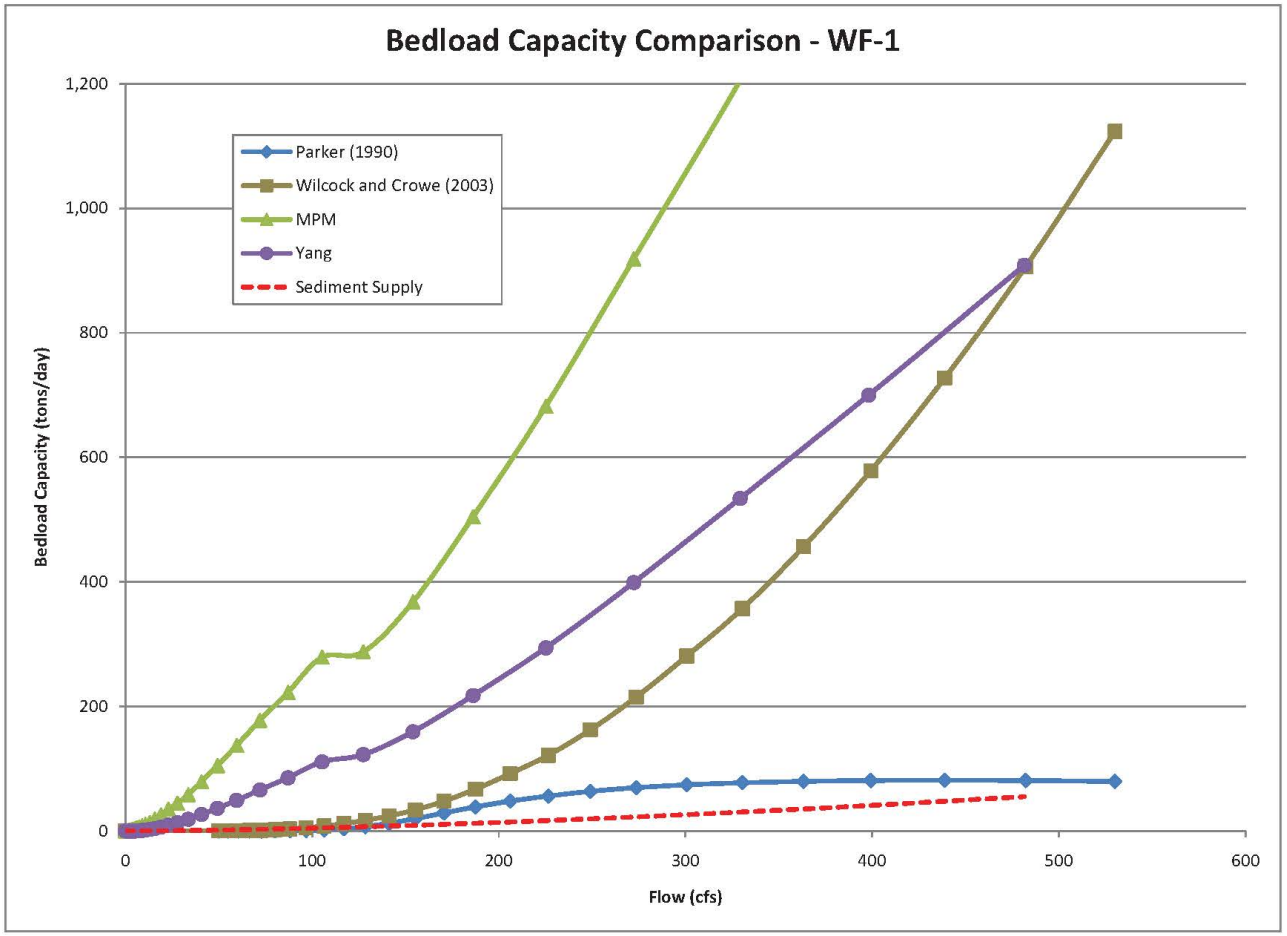


Figure H-10.9
Bedload Capacity Comparison
WF-2: Williams Fork below Steelman Creek

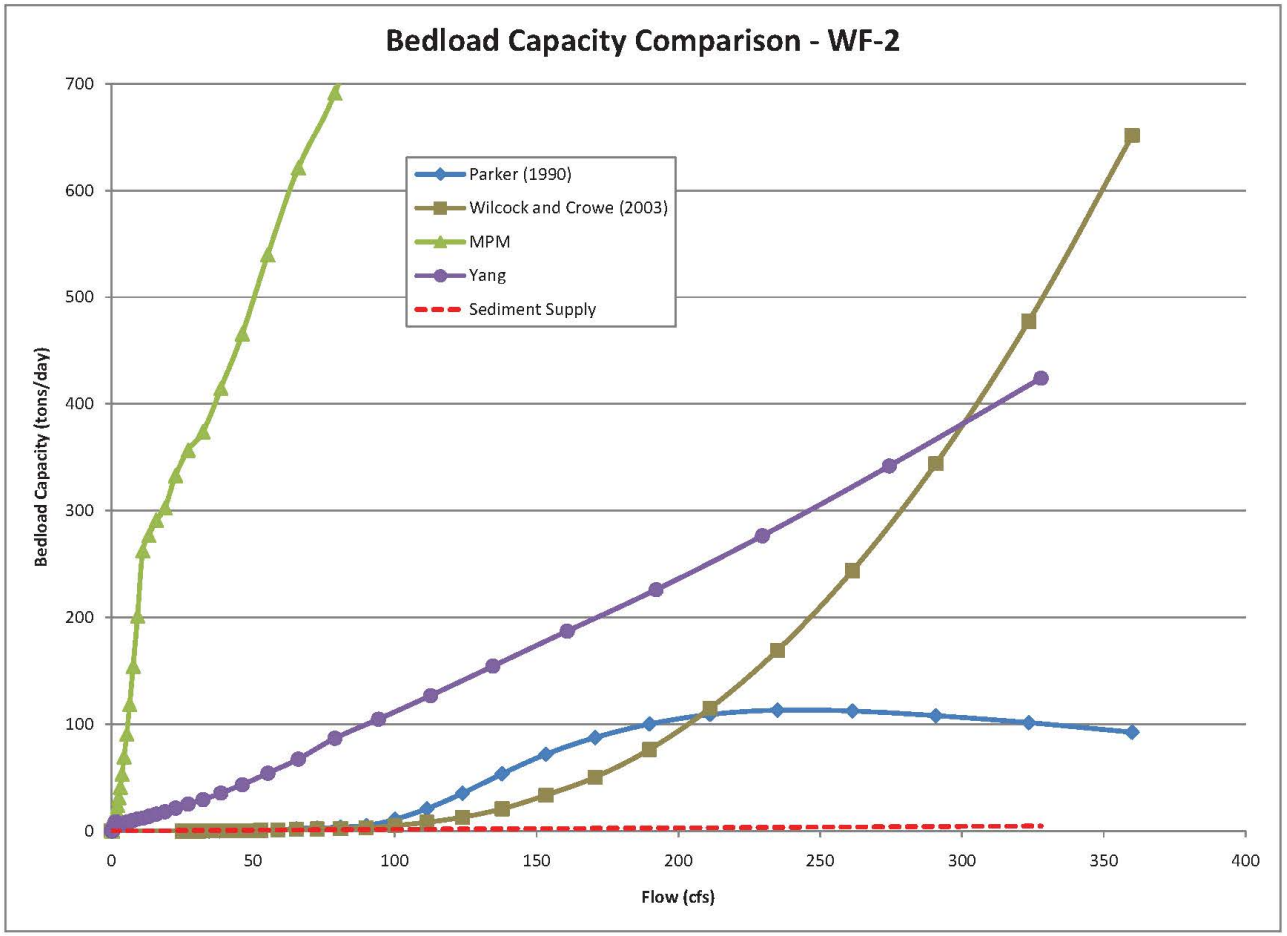


Figure H-10.10
Bedload Capacity Comparison
CR-1: Colorado River above Parshall

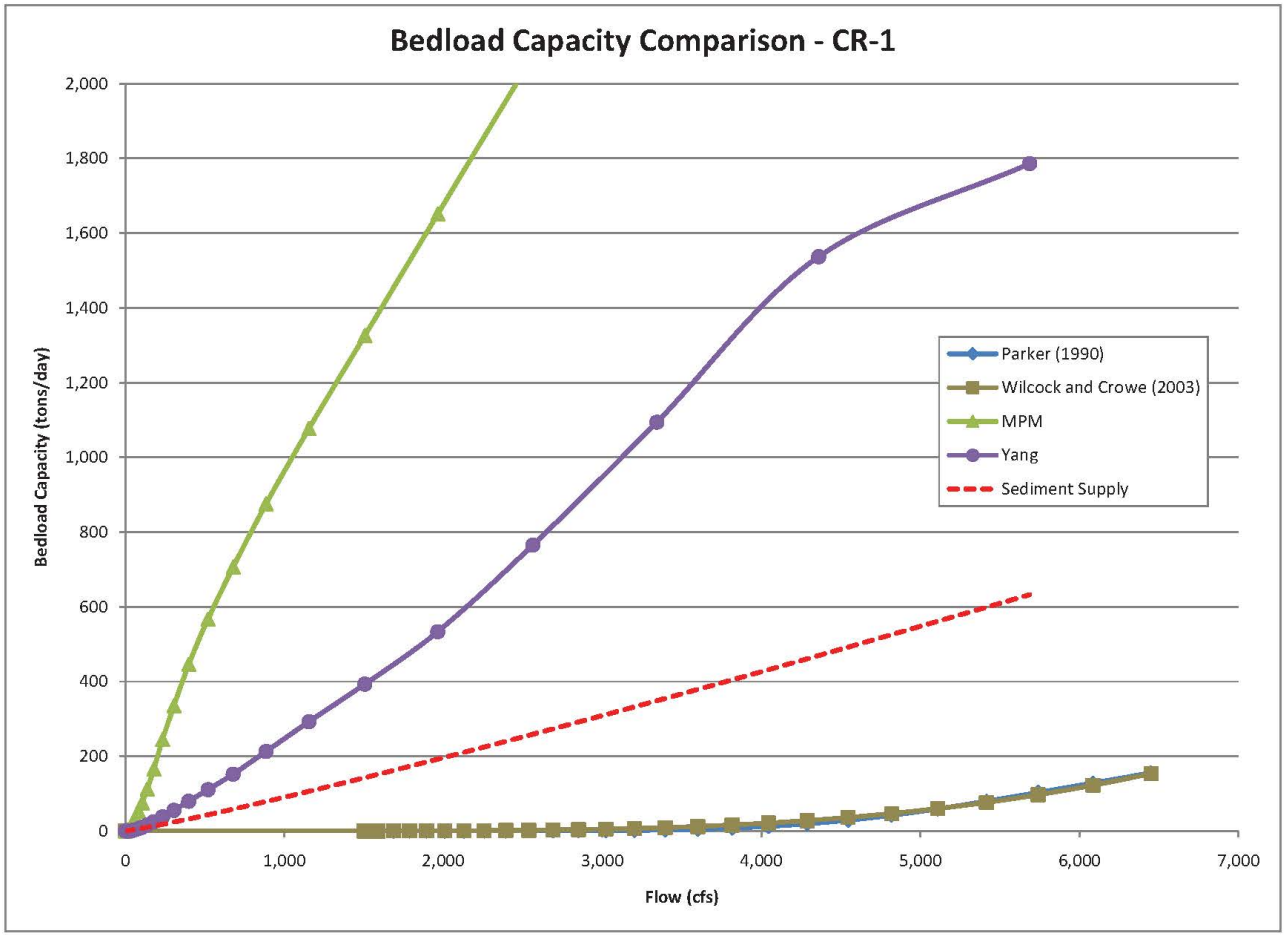


Figure H-10.11
Bedload Capacity Comparison
CR-2: Colorado River at Kemp Breeze State Wildlife Area

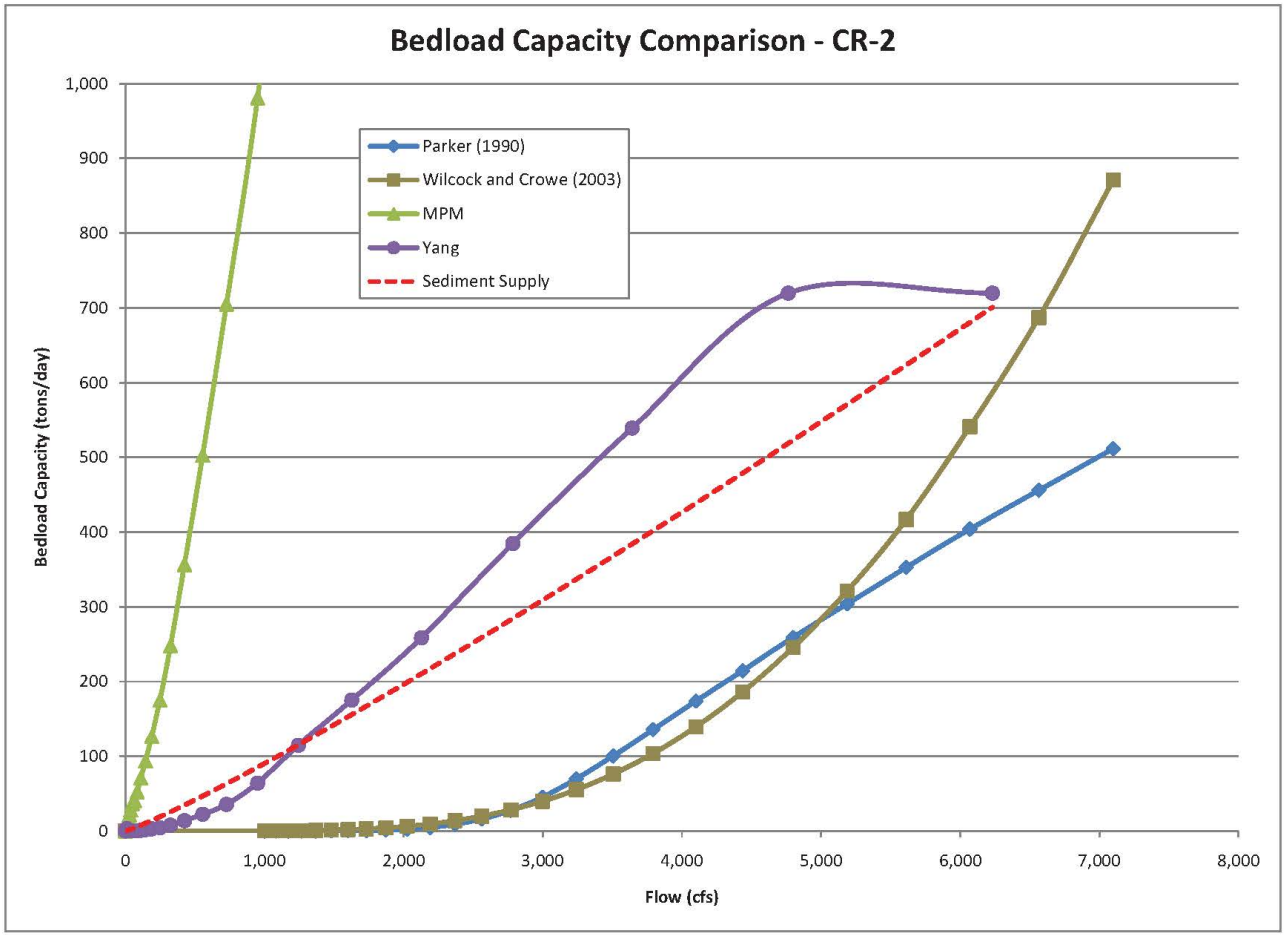


Figure H-10.12
Bedload Capacity Comparison
BR-1: Blue River below Boulder Creek

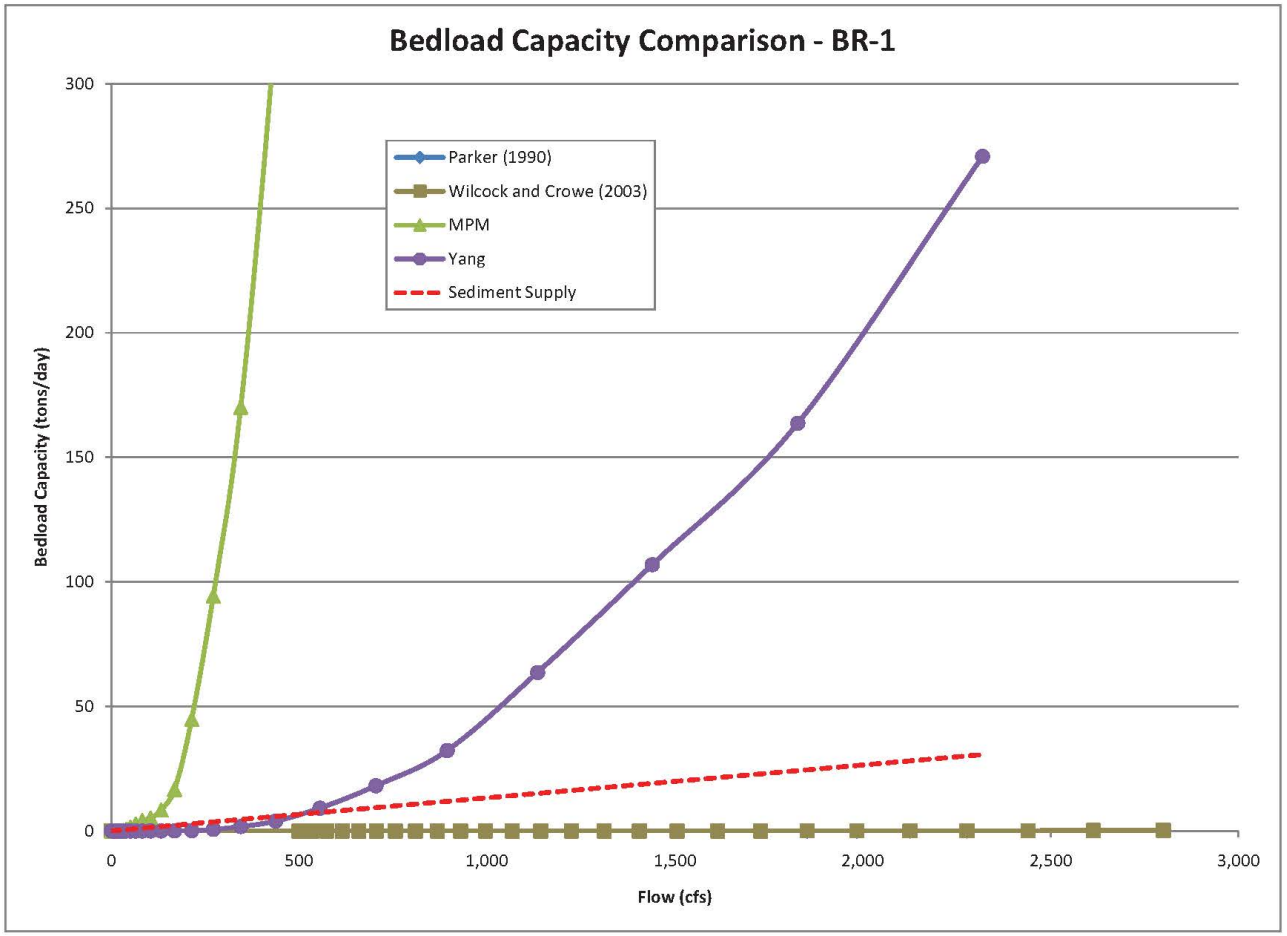


Figure H-10.13
Bedload Capacity Comparison
NF-1: North Fork South Platte near Shawnee

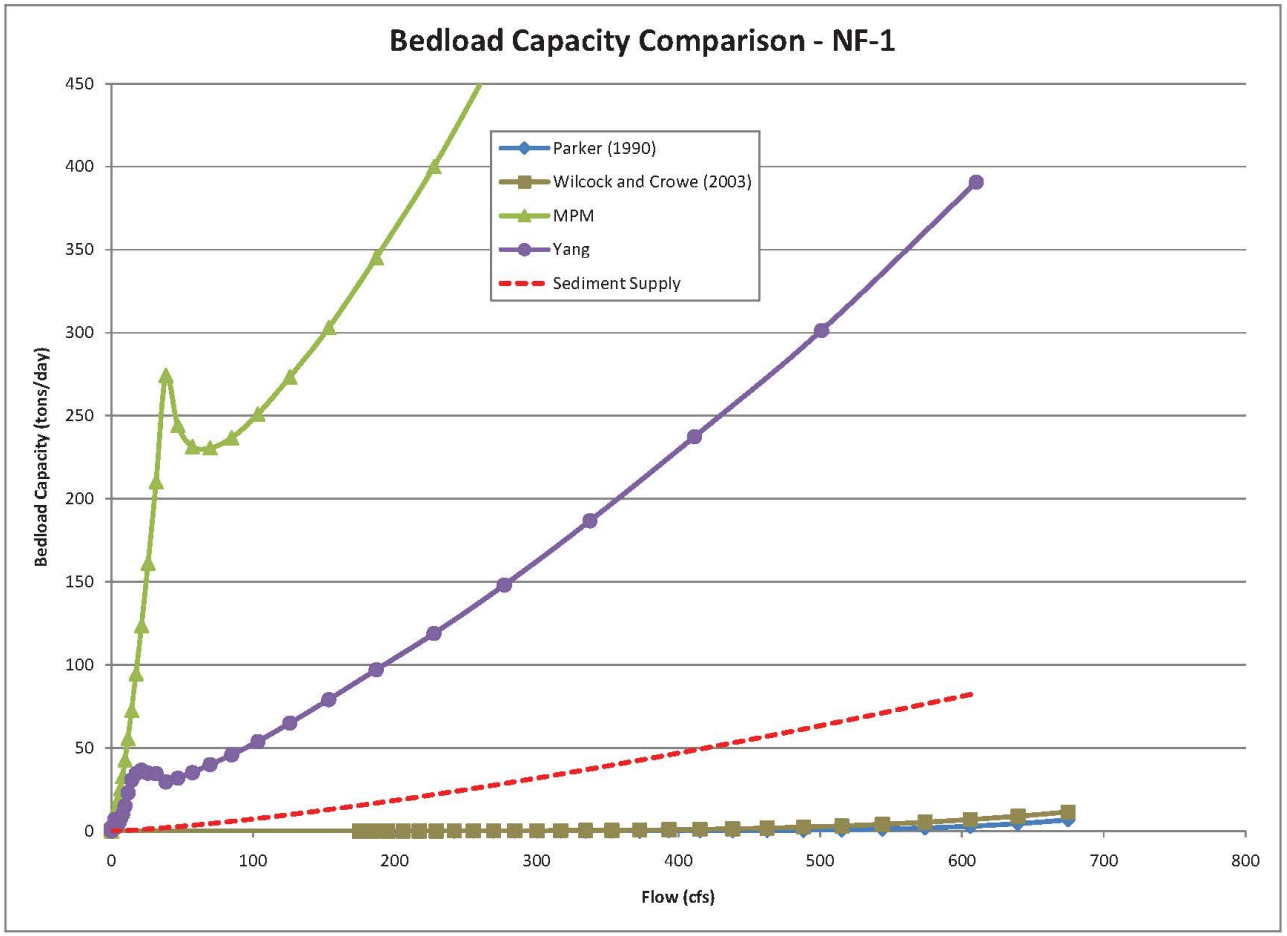


Figure H-10.14
Bedload Capacity Comparison
NF-2: North Fork South Platte near Pine

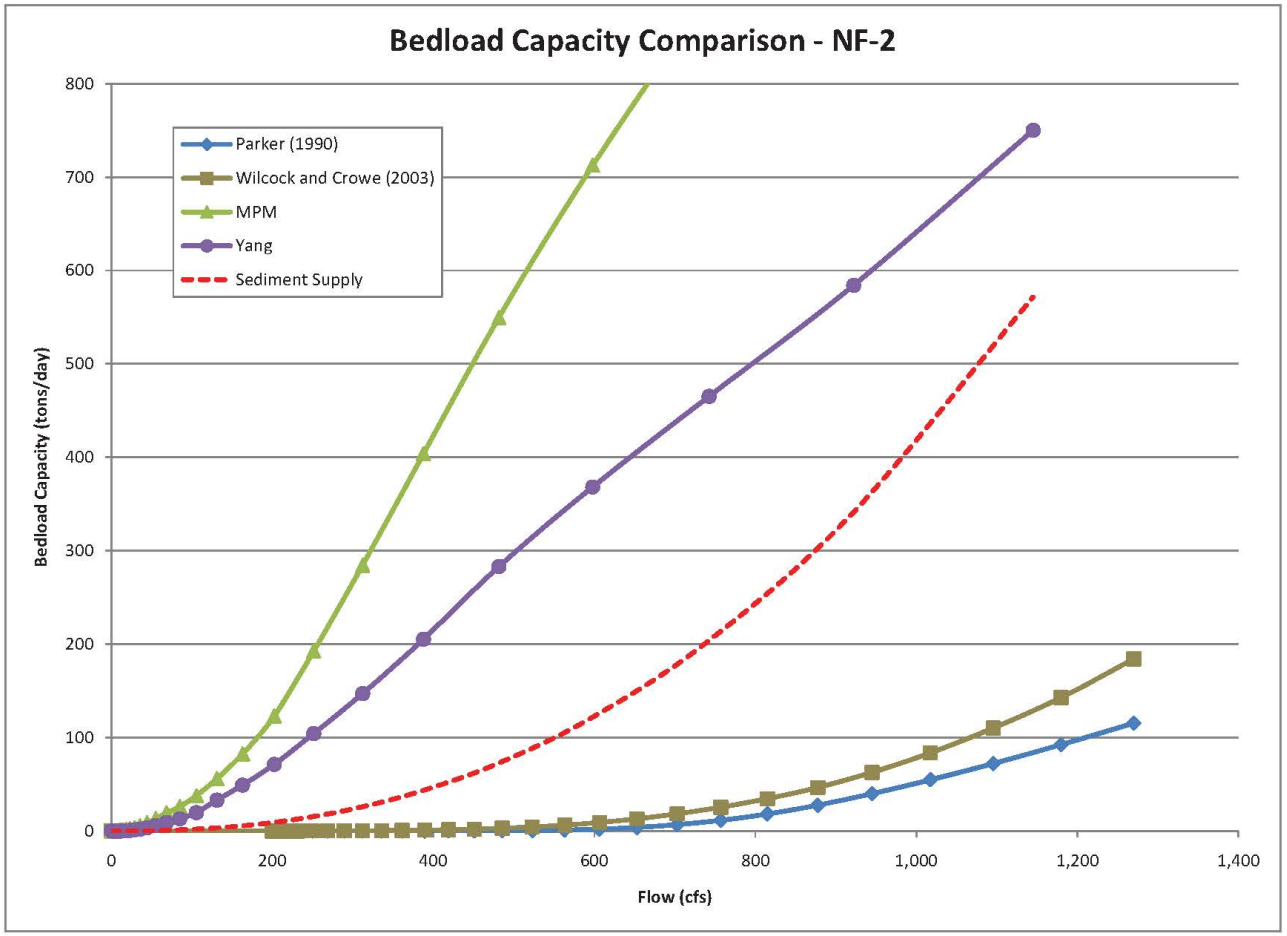


Figure H-10.15
Bedload Capacity Comparison
SBC-1: South Boulder Creek above Rolliinsville

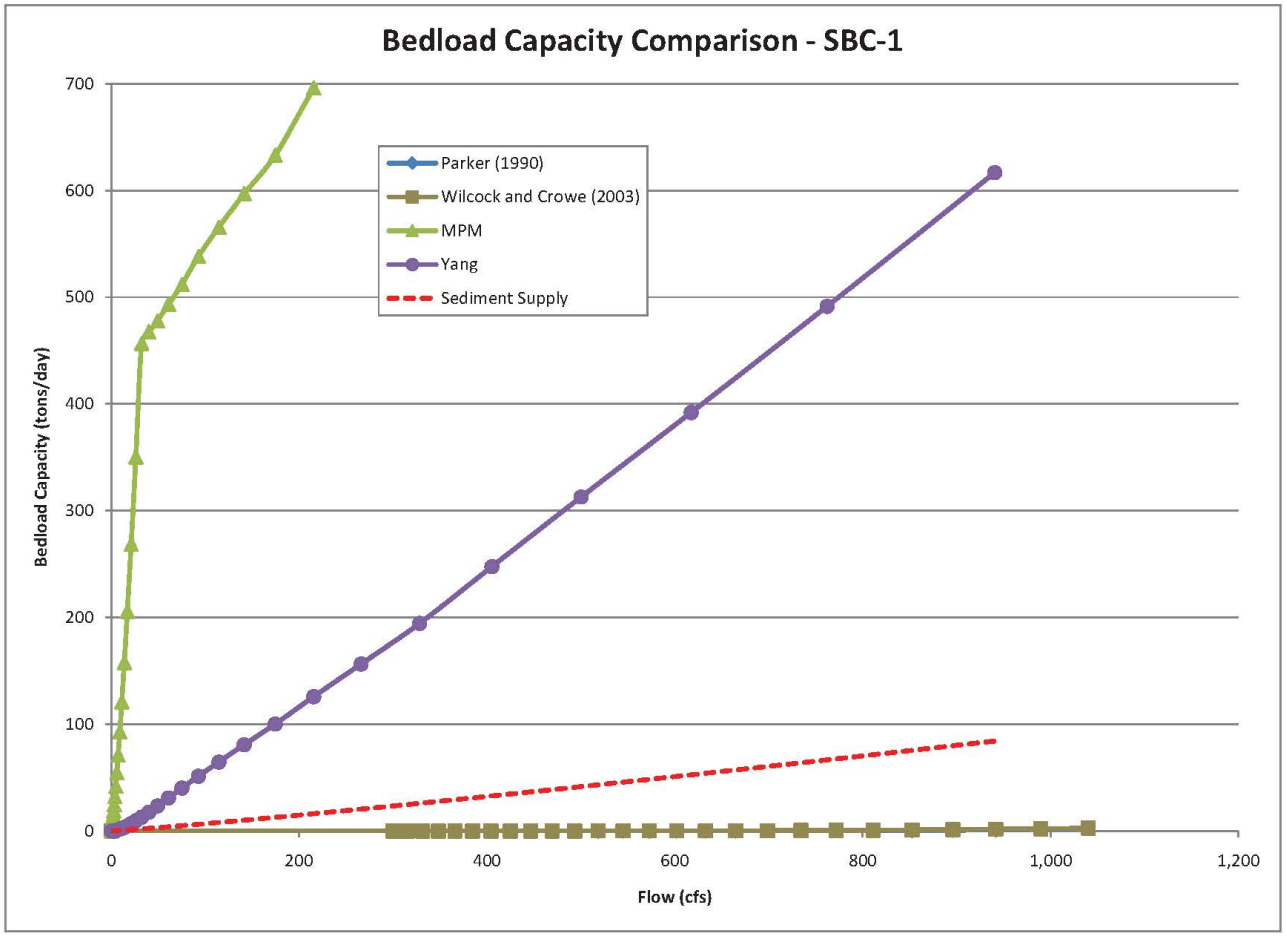
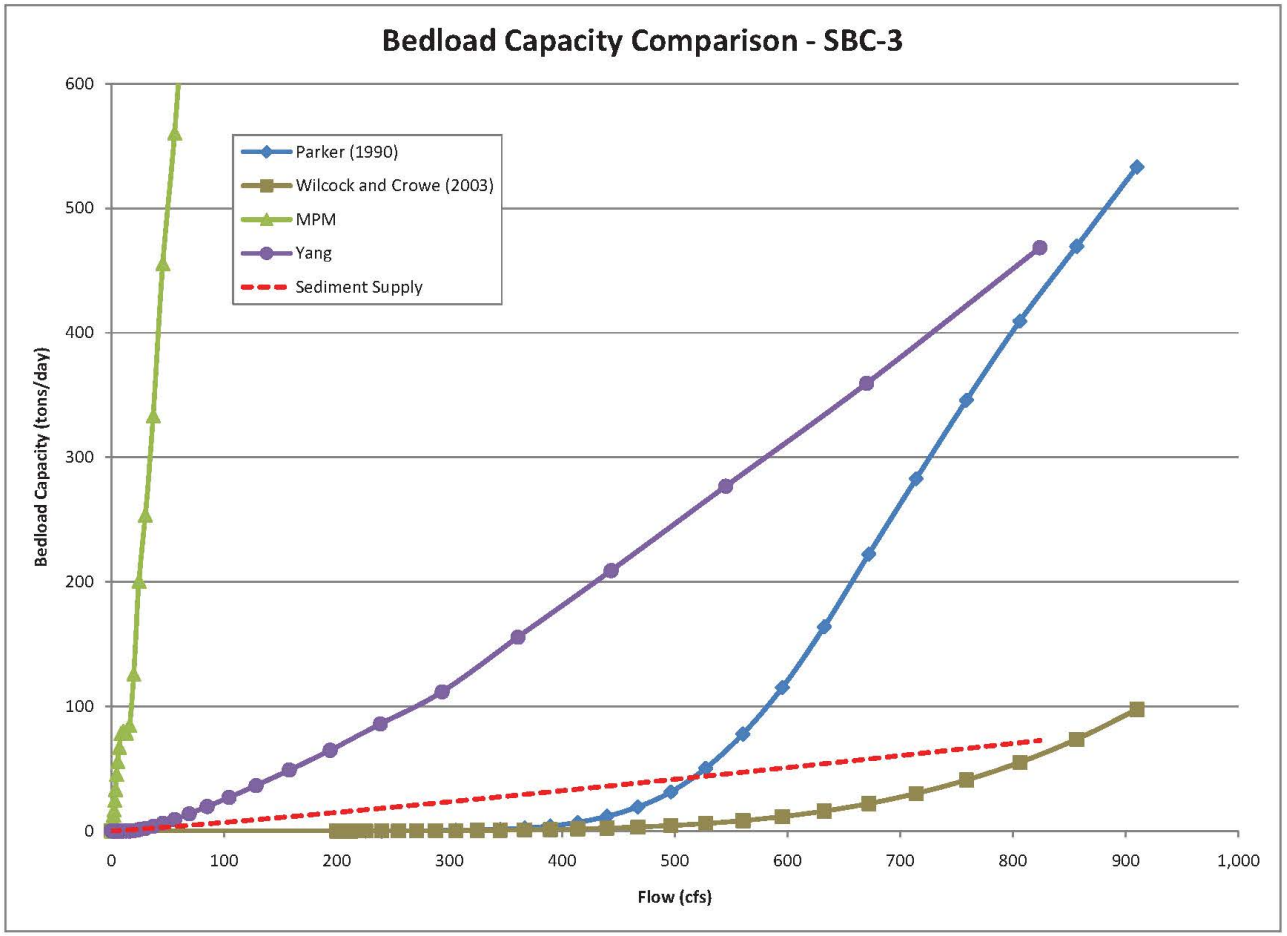


Figure H-10.16
Bedload Capacity Comparison
SBC-3: South Boulder Creek below Gross Reservoir



Appendix H-11
Groundwater Comment Letter and Corps' Response

Groundwater Comment Letter and Corps' Response

- Letter from Wes Wilson, U.S. Environmental Protection Agency, Region 8, NEPA Program, to Scott Franklin, U.S. Army Corps of Engineers, Denver Regulatory Office, dated August 27, 2009
- Letter from Scott Franklin, U.S. Army Corps of Engineers, Denver Regulatory Office, to Wes Wilson, U.S. Environmental Protection Agency, Region 8, NEPA Program, dated September 11, 2009

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Letter from Wes Wilson, U.S. Environmental Protection Agency, Region 8, NEPA Program, to Scott Franklin, U.S. Army Corps of Engineers, Denver Regulatory Office, Dated August 27, 2009

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
1595 Wynkoop Street
DENVER, CO 80202-1129
Phone 800-227-8917
http://www.epa.gov/region08

August 27, 2009

Ref: 8EPR-N

Scott Franklin, U.S. Army Corps of Engineers
Denver Regulatory Office
9307 S. Wadsworth Blvd.
Littleton, Co 80128-6901

RE: Denver Water Moffat Collection System Project, Preliminary Draft Environmental Impact Statement (PDEIS), Ground Water Section 4.2

Scott:

Dear Mr. Franklin:

The United States Environmental Protection Agency, Region 8 (EPA) has reviewed the revised Ground Water Section 4.2 of the Preliminary Draft Environmental Impact Statement (PDEIS). As a cooperating agency, EPA offers these comments for your consideration in accordance with the Agency's responsibilities under Section 309 of the Clean Air Act and Section 404 of the Clean Water Act.

EPA appreciates the Corps response provided on August 3, 2009, to our comments on the potential impacts to ground water in Williams Fork and Fraser River watershed downstream of the proposed diversions. However EPA remains concerned that reduced stream flow in the Fraser River basin due to the proposed project may reduce important ground water recharge in the basin. Alluvial valley ground water is hydraulically linked to wetlands complexes and provides domestic and community water supply. Changes in ground water recharge over the long term must be assessed and we think this can be accomplished based on analysis of available data. The following comments provide some specific suggestions on assessment of potential effects on groundwater resources. These assessments should include potential impacts on all diverted streams in the Fraser (similar to how the Corps has incorporated the assessments in other sections that address water resources).

This section of the PDEIS states, without sufficient documentation or presentation of data, that there is a "negligible effect" on groundwater recharge in Fraser River Basin due to the project changes. The statements and conclusions of this section of the PDEIS need to be quantified and supported with data and relevant literature references. Specifically, there is the need to document how the projected changes in stream flow will affect groundwater resources in the Fraser River basin downstream of the diversions, in specific relation to (1) wetlands in the valley, and (2) well users, including public and private water supplies, for both quantity and quality.

The proposed increases in stream flow diversions will reduce the duration of peak snowmelt flows downstream of the diversion structures in wet and average flow years. Lowering Fraser River peak stream flow up to 28 percent is projected during wet year flow conditions, for example, dropping from 129 cfs flow average in June of the wet years to 93 cfs at the Winter Park gage, (see PDEIS, page H3-2). Previous research in similar high mountain watersheds documented that snowmelt flows can contribute significantly to local and regional groundwater recharge and support fall and winter base flows (see Eschner et al. 1993, Flerchinger et al. 1992, Winograd et al. 1998, and Smerdon et al. 2009). Smerdon et al. (2009) found that the majority of groundwater flow to the valley bottom within a mountainous watershed was supplied by the narrow alluvial aquifer. Stream recharge contributions to groundwater are often considerable within mountain to valley transition zones, where the stream channel is no longer confined by bedrock. (See Covino and McGlynn 2007, Huntley 1979).

There are significant wetland resources in the Fraser valley bottom, particularly in the low gradient alluvial valley of St. Louis Creek, Vasquez Creek, Ranch Creek, Elk Creek, the Fraser River and their tributaries. In the PDEIS, the statement is made that diversions from the tributaries will have a minimal impact on wetlands or ground water levels in wells; however these conclusions are not supported with quantifiable data or relevant peer-reviewed literature. There is a need to understand whether or not removal of a portion of the spring peak flow will reduce long term groundwater recharge in these downstream reaches of the Fraser River and its tributaries. Further analysis is necessary to assess the impacts of the project on groundwater recharge and stream base flow, wetlands and groundwater wells. This analysis should include an evaluation of data for this hydrogeologic system, including runoff flows and the relationship to groundwater recharge for this area. Relevant methodologies may include hydrograph separation techniques, where groundwater recharge is quantified by separating stream discharge into in-stream and groundwater flow components as the stream exits the mountain topography (see Covino & McGlynn 2007) or an approach that utilizes a combination of modeling and seasonal water budget where data may be variable and limited in some areas (see Smerdon et al. 2009).

It is unclear how the Corps is conceptualizing groundwater/surface water interactions in this study and what assumptions are being used to constrain the analysis. The current conclusion that ground water recharge conditions will remain unchanged with the project appears to be based entirely on the operational plan specifying that no additional stream diversions will occur during the low flow years. Further stream reductions, particularly in peak stream flow during wet years, may reduce alluvial ground water recharge as occurs in other similar mountain localities. EPA suggests that a conceptual model based on data from this area be prepared for this watershed, including the relationship of surface water and groundwater during different flow regimes and seasons. This conceptual model should include an explanation of the source of the water supporting the wetlands in the valley bottom, including an estimate of what proportion of inflow to wetlands is from overbank flow from the Fraser River and its tributaries during spring runoff, or from ground water recharge from the surrounding alluvium/bedrock. Furthermore, the conceptual model should include an assessment of the sources of groundwater recharge to the valley bottom (e.g., alluvial aquifer, lateral flow through bedrock, direct infiltration to valley bottom (Smerdon et al. 2009)), and the estimated proportion from each source. Such a

conceptual model seems necessary to fully examine potential impacts to groundwater recharge and consequent influences on surface water and wetlands.

A previous study conducted by the US Geological Survey found that stream flow did not contribute substantially to the hydrology of slope wetlands in the upper Williams Fork Basin (see Ruddy et al, 1991.) This study looked only at the direct inflow to slope wetlands approximately one five miles below the diversion points and did not consider riparian wetland complexes lower in the basin or the larger basin-scale dynamics of groundwater and its varied sources of recharge (see Smerdon et al. 2009).

To examine the potential role of overbank flow during spring peak flow events in maintaining wetland and riparian complexes in the Fraser Valley bottom, EPA requests that the Corps estimate the larger basin-scale impact on the groundwater levels and the resulting localized impact to the wetlands from the project's anticipated reduction in flow using the current PACSM model. Historical static water level data may also serve as a data source to assess the potential impacts of diversion on downstream wetlands along the low gradient portions of St. Louis Creek, Vasquez Creek, Ranch Creek, Elk Creek, Fraser River and their tributaries. EPA requests that the Corps use historical aerial photography, or other available data, to assess past changes in wetland area due to the historical diversions by Denver Water.

In terms of the effect on well users, the EIS should provide information on all private wells and public water supply wells that could be impacted in the valley, and an analysis of the expected impact on the water levels due to the diversion. A reduction in water quantity can also affect water quality in ground water and wells due to lower groundwater levels.

Nine streams below current diversions do not have immediate flow recovery

On page 2 of the Groundwater Section, the reference to McCarthy 2008 is quoted to imply that downstream of the diversion structures, flow recovery was evident at all reaches. This is a misstatement and taken out of context with respect to the McCarthy study. The McCarthy research was confined to streams that had restoration of flowing water below the diversion point and did not include the nine streams below Denver's diversion that do not have any flowing water. On page 42 of the McCarthy thesis it states, "It is also important to note that these results reflect a subset of streams that are able to maintain discharge from initial recovery point to confluence with a larger stream. In the summer of 2006, nine of the streams in the Fraser River Basin that were 100% diverted showed no recovery and either consisted of a series of unconnected pools or were completely dry along the entire channel to the confluence. Thus, although some streams, like those sampled in this study, recover and maintain both discharge and invertebrate metrics downstream of the diversion structures, other streams have no inflows downstream of the diversion point and cannot support aquatic invertebrate assemblages associated with montane headwater streams..." Before the DEIS goes to press, please correct this section to accurately characterize existing stream flow conditions based on this reference.

Understanding the project's impact on west slope ground water is of paramount importance. We would appreciate an opportunity to discuss how best to proceed to obtain this information prior to the Corps publishing the Draft EIS. Please contact me at 303/312-6562 to arrange an opportunity to further explain our concerns to you, your consultants, and Denver Water representatives.

Sincerely,

Weston Wilson
Environmental Engineer, NEPA Program

cc: Travis Bray, Denver Water Department
Lane Wyatt, Grand County

References cited:

Covino, T.P. and McGlynn, B.L., 2007. Stream gains and losses across a mountain-to-valley transition: Impacts to watershed hydrology and stream chemistry, Water Resources Research, Vol. 43, Issue 10.

Eschner, T.R. et. al, 1983. Hydrologic and morphologic changes in channels of the Platte River Basin in Colorado, Wyoming, and Nebraska: a historical perspective. USGS Professional Paper No. 1277-A.

Flerchinger, G.N, et. al, 1993. Groundwater response to snowmelt in a mountainous watershed. Journal of Hydrology, 133:293-311.

Huntley, D. 1979. Ground water recharge to the aquifers of northern San Luis Valley, Colorado. Geological Society of America Bulletin, Part II, 8:1196-1281.

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Ruddy, Barbara, and Robert S. Williams, Jr., 1991. Hydrologic Relations Between Streamflow and Subalpine Wetlands in Grand County, Colorado, Water-Resources Investigations Report 90-4129.

Smerdon, B.D, 2008. An approach for predicting groundwater recharge in mountainous watersheds, Journal of Hydrology, 365: 156–172.

Winograd, Issacc, et. al, 1998. The relative contributions of summer and cool-season precipitation to ground water recharge, Spring Mountains, Nevada, USA. Hydrogeological Journal, 6:77-93.

Letter from Scott Franklin, U.S. Army Corps of Engineers, Denver Regulatory Office, to Wes Wilson, U.S. Environmental Protection Agency, Region 8, NEPA Program, Dated September 11, 2009

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
DENVER REGULATORY OFFICE, 9307 SOUTH WADSWORTH BLVD
LITTLETON, CO 80128-6901

September 11, 2009

Wes Wilson
EPA Region 8 (EPR-EP)
1595 Wynkoop Street
Denver, CO 80202-1129

Dear Wes:

We appreciate the U.S. Environmental Protection Agency's (EPA) concerns and suggestions in your letter dated August 27, 2009, regarding the Denver Water Moffat Collection System Project, Preliminary Draft Environmental Impact Statement (PDEIS) Groundwater Section 4.2.

We have already revised the DEIS as you suggested at the end of page 3 in your letter to provide a more complete summary of the pertinent results of the McCarthy 2008 Masters Thesis. However, there are other points in your letter that we disagree with. It appears that your comments relied only on the information provided in Section 4.2, without considering pertinent information contained in other Moffat Project DEIS sections. For instance, detailed surface water flow analysis results from Denver Water's Platte and Colorado Simulation Model (PACSM) and HEC-RAS (Corps' HEC-RAS computer software [version 4.0]) are provided in DEIS Sections 3.1, 4.1, and 4.6 that provide information to support the groundwater impact assessment in DEIS Section 4.2. DEIS Section 4.6 provides detailed information regarding the wetlands and riparian impacts, which were based on changes in stream flows and flood inundation area at representative sites downstream of the diversion points.

After careful review, we reaffirm the conclusions in Section 4.2 of the DEIS regarding the minor effects that the Moffat Project would have on groundwater recharge and the negligible effect on groundwater resources within the Fraser River basin. Although it is exceedingly difficult to actually measure groundwater recharge rates in any watershed due to hydrogeologic complexities, spatial and temporal variability in physical factors, hydrology and climate, we agree with EPA that it is possible to provide additional technical support in assessing the potential changes in groundwater recharge that may result from increased project diversions in the Fraser River Watershed. Accordingly, this letter summarizes information presented in the DEIS and provides additional rationale to support the groundwater impacts assessment in Section 4.2.

The Moffat Project would not make any changes to the locations or the physical features of any of the existing Denver Water diversion structures west of the Continental Divide. Figure 1 shows the Denver Water diversions (red dots) within Fraser River basin and subdivides the watershed into areas to facilitate discussion of this EPA concern. Throughout the blue-shaded area on Figure 1, groundwater recharge rates will remain the same as for current conditions, both in the upland areas and along the stream channels, because these areas lie upstream of the Denver Water diversion points. The blue area on Figure 1 constitutes a large percentage of the whole watershed. This relatively large area includes the highest land surface elevations, precipitation rates, and snowpack amounts in this watershed.

Figure 2 is the geologic map from a technical report referenced in the DEIS Section 3.2 (Apodaca and Bails, 1999). This map shows glacial deposits and alluvial gravels underlie large portions of the watershed. Fractured crystalline rocks are also exposed in many areas of the basin. Precipitation and snowmelt infiltrate though permeable soils, sedimentary deposits and fractured rocks in upland areas of the basin to become groundwater recharge.

Figure 1 also shows another large area (shaded brown) in which the Proposed Action will not affect groundwater recharge rates, either in the upland areas or along the stream channels, because these areas do not lie downstream of any Denver Water diversion points. Fundamental hydrogeologic concepts provide the basis for inferring that high recharge rates exist throughout the blue and brown areas on Figure 1. Recharge rates will not change in any of those areas as a consequence of the project.

In other parts of the Fraser River watershed that lie downstream of the diversions, the Proposed Action only has the potential to reduce groundwater recharge rates in the relatively small areas directly beneath the stream channels, and where the diversions cause overbank flooding areas to be reduced. Outside the stream channel limits (white areas on Figure 1), there would be no change in groundwater recharge rates because the hydrogeologic factors controlling infiltration of precipitation and snowmelt would not be altered. Therefore the area in which the project has no potential to change the groundwater recharge rate makes up a large percentage of the whole watershed.

The DEIS Section 4.2 describes that stream flow reductions could conceivably cause some reduction in the groundwater recharge rate directly beneath the stream channels if percolation from the streambeds decreased. However, groundwater recharge rates would decline only where (1) the stream reach is losing water by seepage to groundwater under current conditions, and (2) the diverted stream flow causes a substantial decrease in the stream level and the wetted area of the stream bed.

A recent U.S. Geological Survey Report (Apodaca and Bails, 1999) for the Fraser River basin, which is cited in the DEIS Groundwater Section 4.2, shows groundwater level contour patterns that indicate hydraulic gradients, and thus groundwater flow directions, converge toward the streams in the central portion of the Fraser River basin downstream of the Denver Water diversion points. Where water table contours show groundwater flow converging toward streams, this indicates the streams are not providing groundwater recharge, but rather the streams are receiving groundwater discharge. Convergence of groundwater flow toward these streams also indicates that the recharge occurs in higher elevation areas, upland of the streams. Therefore, even though the increased diversions may cause slight reductions of the stream levels, there would not be a consequent reduction in groundwater recharge downstream of the diversion points.

The timing of the additional surface water diversions proposed for the Moffat Project would also minimize potential impacts on groundwater resources. Denver Water is proposing to obtain the additional water by extending the duration of the flow diversion period and diverting more water at each existing diversion structure during peak runoff periods in wet and average years. Snowmelt runoff during the spring and early summer months causes high stream flows, which dominate the hydrologic system in each watershed while groundwater recharge and discharge are relatively minor components of the systems in each of the affected watersheds during these times.

Information provided in the DEIS indicates there will be, at most, very small changes in groundwater recharge directly beneath potentially affected stream segments. Streambed percolation rates will remain essentially the same as for current conditions because: (1) stream levels and wetted areas of the streams will only change by a very small amount, and (2) the hydraulic conductance (permeability) of the streambed materials would not be affected by the Moffat Project. Streamflow changes were modeled using the PACSM (described in DEIS Section 3.1), and riparian and wetlands areas are characterized in Section 3.6.5. Details of the methodology used to estimate stream flow changes are presented in Section 4.1 of the DEIS. Details of the methodology used to estimate changes in flood flows, water levels and wetted areas of the stream are presented in Section 4.6 of the DEIS.

Streambed percolation rates are expected to decrease by a negligible amount because the timing of the diversions would coincide with high runoff periods in wet or average years. Appendix H-5 provides a series of flow duration curves based on PACSM results for a number of locations along the Fraser River and tributaries downstream of the diversion points. Flow duration curves are shown in Figures H-5.1 through H-5.11 for several locations of interest in the Fraser River basin. Those curves indicate that the potential changes in flow durations attributable to this project would be minimal. As shown by the flow duration curves, flow reductions resulting from the Proposed Action would occur at higher flow rates, which typically correspond with wet years. Table H-6.1 shows the percentage of days from May through June that flow changes would occur at several locations of interest. There would be little to no change in flow (flow change less than 1 cfs) more than 80% of the time at all locations in the basin upstream of the confluence with St. Louis Creek. Below the confluence with St. Louis Creek there would be little to no change in flow (flow change less than 1 cfs) between 70% and 80% of the time.

Hydraulic modeling using the HEC-RAS model has been conducted to analyze the changes in stream flows and flood inundation area, at representative sites downstream of the diversion points. As part of the impact assessment for wetland and riparian areas, DEIS Section 4.6.1.2 provides an analysis of the interaction between stream flow change and inundated area in the affected drainage. Table 4.6-4 provides predicted changes in stream levels and channel widths for four detailed study sites along streams in the Fraser River watershed. The modeling results indicate Site FR1 near Winter Park would have the largest reduction in stream level due to the Denver Water diversions; the peak stream level during a 2-year flow event would drop about 8 inches in that reach.

The HEC-RAS model results also show changes in the wetted channel width at that location would be about 1.6 feet, which is very small in comparison to the existing 2-year water profile. The attached Figure 4.6-1 (copied from the DEIS) illustrates the very small change in the 2-year water profile (stream width) that would be caused by the proposed action. Even extrapolating over a larger stream length, the reductions of flow-wetted area would be very small; e.g. a 1-mile stream segment would experience a reduction in inundated area of about 0.4 acre.

In summary, for the reasons enumerated above, the proposed diversions are expected to have minor direct impacts on groundwater. Declining stream levels would likely cause minor reductions in groundwater levels immediately adjacent to the streams. Overall, groundwater recharge rates would not change substantially. In wet years, the net effect of the Moffat Project on groundwater levels is expected to be negligible. During dry years, there would be no additional water diversions, and thus, the Project would not impact groundwater levels or recharge rates. Groundwater Section 4.2 of the DEIS provides an assessment of impacts consistent with the available data and modeling analyses. Nonetheless, we agree with the EPA suggestion that additional information and technical references could be added to the DEIS Groundwater Section 4.2 to clarify the technical basis and rationale supporting these points.

We disagree however, with the EPA suggestions to use historical air photos and other information to assess past changes due to historical Denver Water diversions and to provide information on all existing water supply wells in the valley. Historical Denver Water diversions are not at issue for this Moffat Project EIS because they are not part of the Proposed Action. Moreover the available historical photos and other information would not be adequate to discern the effects of the Denver Water diversions from other anthropogenic changes and climatic variability. Considering the negligible effects this project will have on groundwater, additional work to compile information for the large number of wells in this watershed is unnecessary for the EIS. Moreover, obtaining complete information for many of the private wells would not be available without conducting a concerted canvass of the residences.

We will include the above information in the Chapter 4 Groundwater Section of the Draft EIS, and intend to move forward with the projected DEIS release date of October 2009. If you have additional

groundwater analysis questions or recommendations upon the release of the Draft EIS, we are more than willing to discuss them.

Please contact me at 303-979-4120 or j.scott.franklin@usace.army.mil if you have questions or would like to discuss.

Sincerely,

J. Scott Franklin

Scott Franklin
Moffat Collection System Project Manager

Enclosures:

cf (via e-mail): Tim Carey, Corps
Martha Chieply, Corps
Chandler Peter, Corps
Jeff Dawson URS
Andrea Parker, URS
John Thackston, URS
Heather Thompson, ERC

Moffat DEIS.response to EPA groundwater concerns.11-sep-09.doc

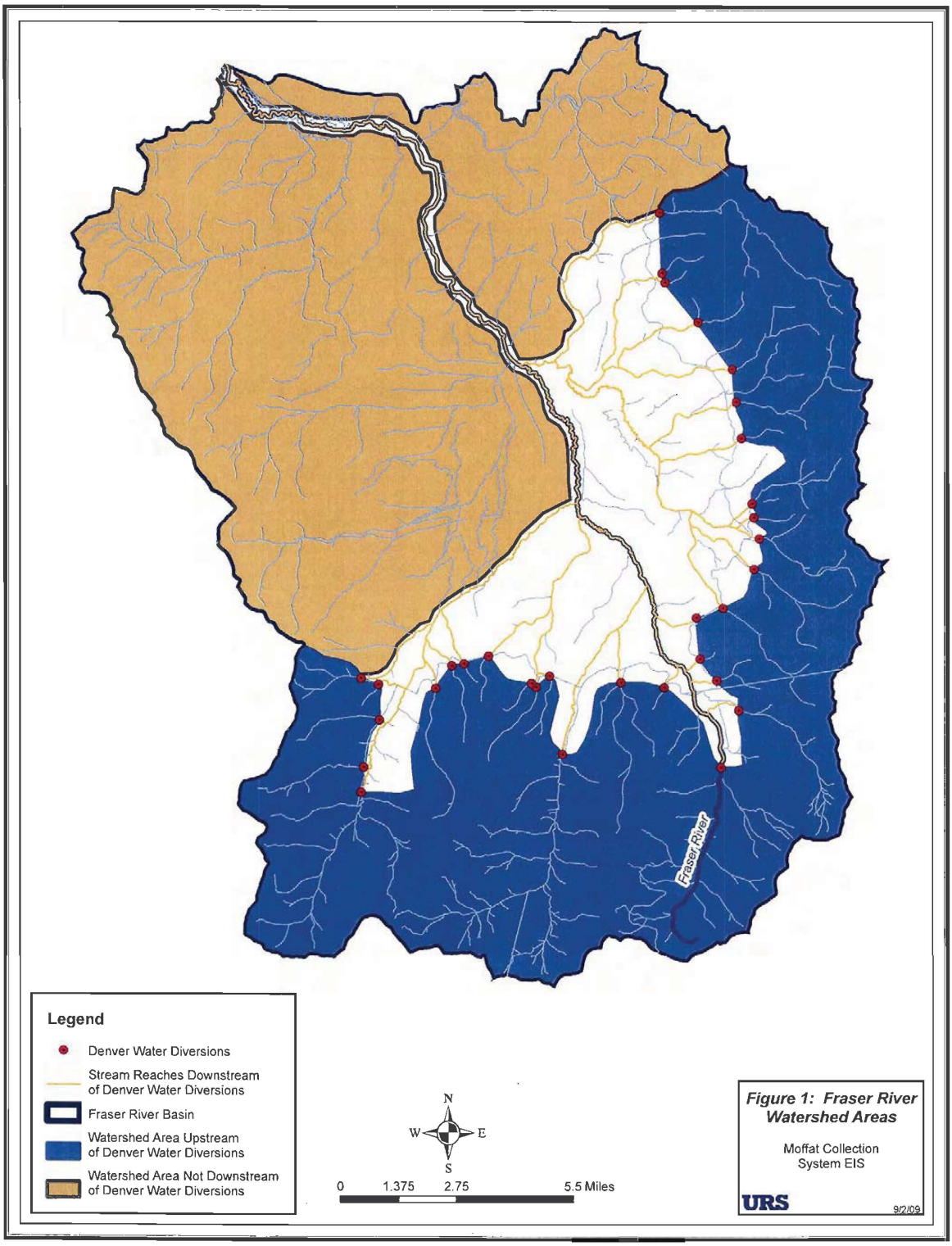

Figure 1: Fraser River Watershed Areas

Moffat Collection System EIS

URS

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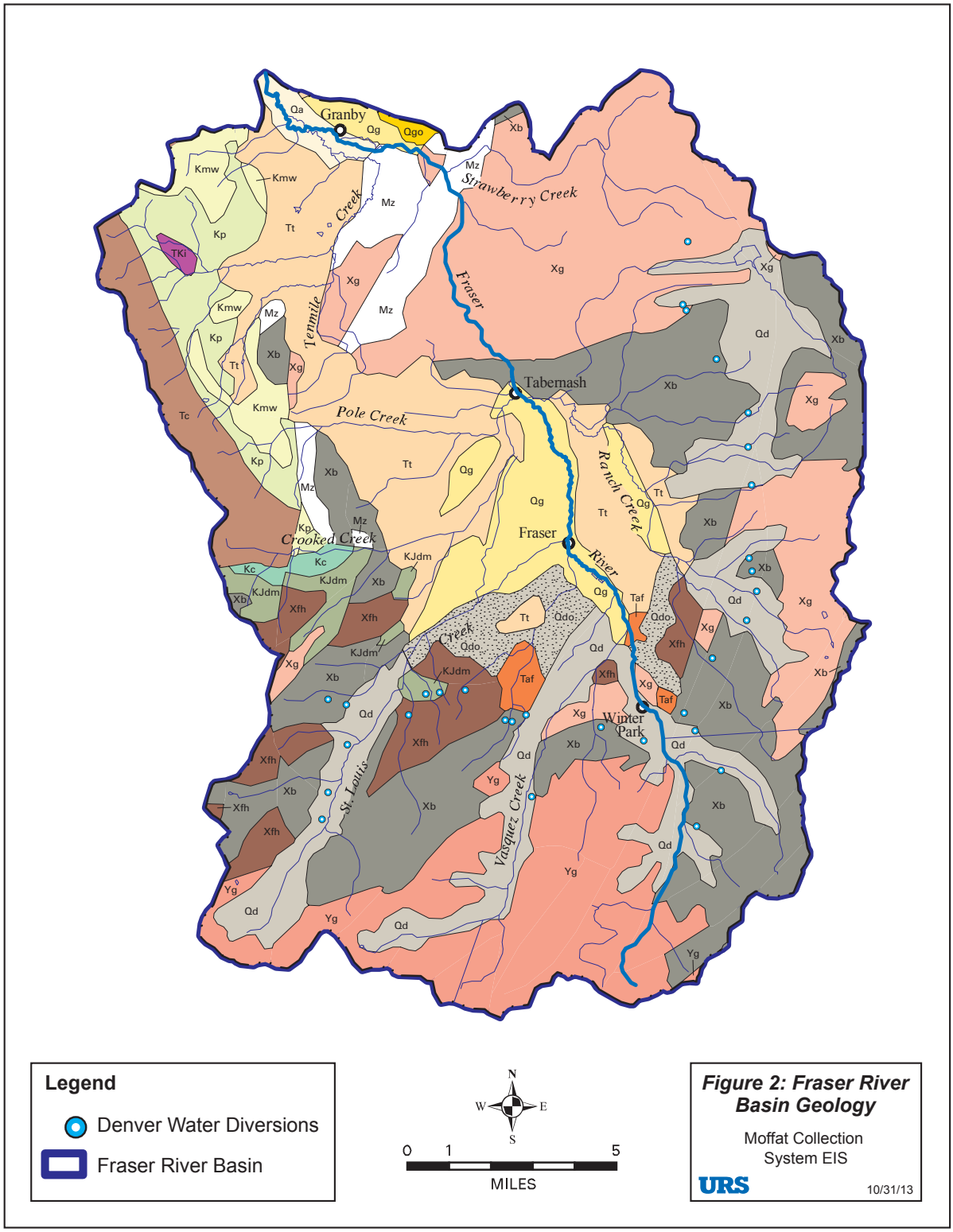

Figure 2: Fraser River Basin Geology

Moffat Collection System EIS

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EXPLANATION

Unconsolidated surficial deposits of Quaternary age

Qa	**Modern alluvium**
Qg	**Gravels and alluviums**
Qgo	**Older gravels and alluviums**
Qd	**Glacial drift of Pinedale and Bull Lake Glaciations**
Qdo	**Older glacial drift (pre-Bull Lake age)**

Igneous rocks of Tertiary and/or Cretaceous age

TKi	**Laramide intrusive rocks**
Taf	**Ash-flow tuff of main volcanic sequence**

Sedimentary rocks of Tertiary age

Tt	**Troublesome Formation—**Siltstone, sandstone, and conglomerate
Tc	**Coalmont Formation—**Sandstone, shale, coal beds, and conglomerate

Sedimentary rocks of Cretaceous age

Kmw	**Windy Gap Member of Middle Park Formation**
Kp	**Pierre Shale, undivided**
Kc	**Colorado Group**

Sedimentary rocks of Cretaceous and Jurassic age

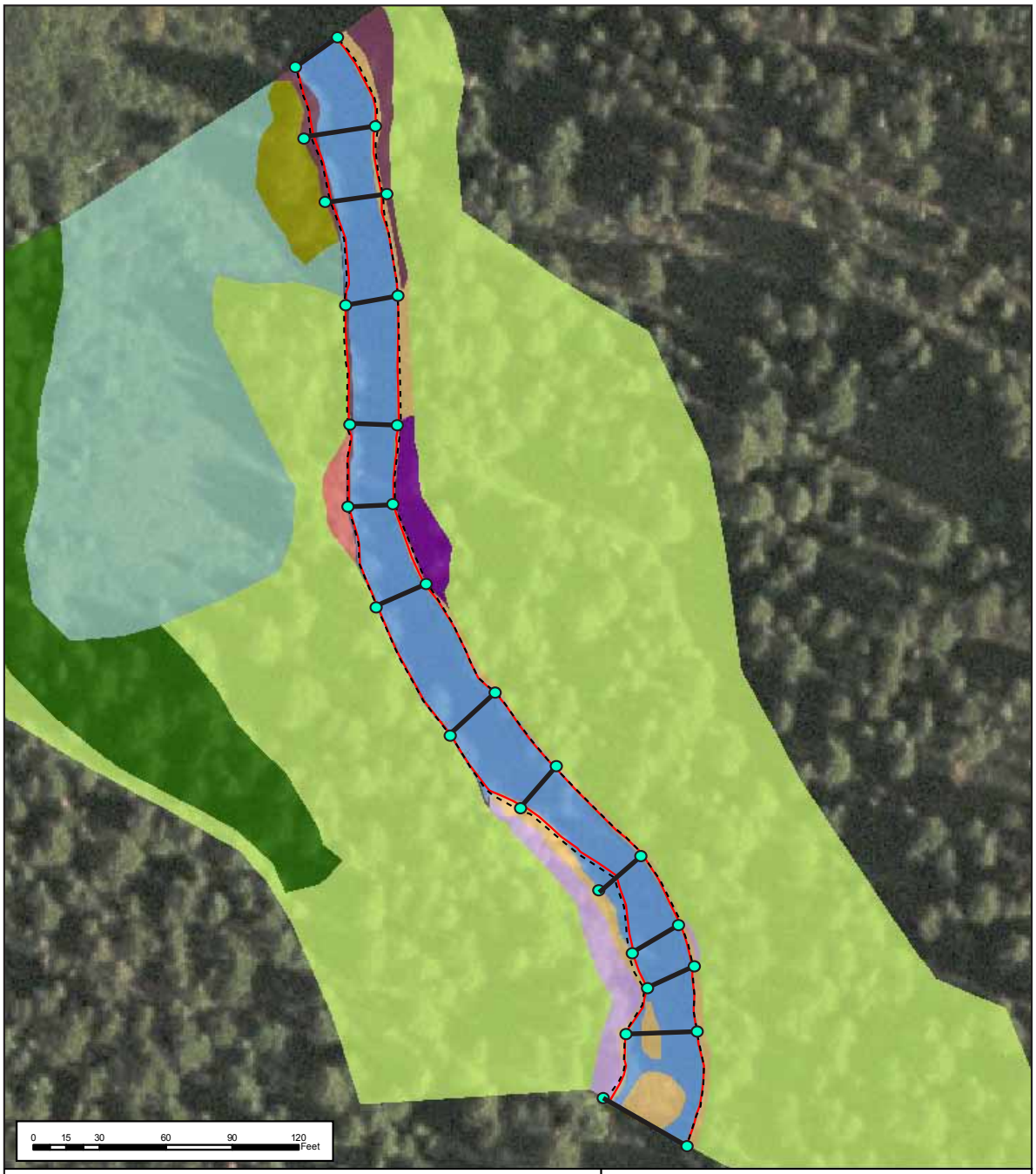
KJdm	**Dakota and Morrison Formations**

Sedimentary rocks broadly classified

Mz	**Mesozoic rocks—**Mainly early Cretaceous, Jurassic, and Triassic age

Igneous and metamorphic rocks of Precambrian age

Yg	**Granitic rock of 1,400 Ma**
Xg	**Granitic rock of 1,700 Ma**
Xb	**Biotite gneiss, schist, and migmatite**
Xfh	**Felsic and hornblende gneisses, either separate or interlayered**



Moffat Collection System Project EIS

Figure 4.6-1
Sampling Site Fraser River 1 (FR1) - Riparian Vegetation Effects

(Note: 2 year water profile comparison for existing conditions and the Proposed Action)

Appendix H-12
Native Flows

- Table H-12.1 Fraser River at Denver Water's Diversion
- Table H-12.2 Jim Creek at Denver Water's Diversion
- Table H-12.3 St. Louis Creek at Denver Water's Diversion
- Table H-12.4 St. Louis Creek Tributaries at Denver Water's Diversions
- Table H-12.5 King Creek at Denver Water's Diversion
- Table H-12.6 Vasquez Creek below Gumlick Tunnel
- Table H-12.7 Vasquez Creek at Denver Water's Diversion
- Table H-12.8 Elk Creek and Tributaries at Denver Water's Diversions
- Table H-12.9 Little Vasquez Creek at Denver Water's Diversion
- Table H-12.10 Cooper Creek at Denver Water's Diversion
- Table H-12.11 Englewood Ranch Gravity System at Denver Water's Diversions
- Table H-12.12 North Fork Ranch Creek and Dribble Creek at Denver Water's Diversions
- Table H-12.13 Main Ranch Creek at Denver Water's Diversion
- Table H-12.14 Middle and South Fork of Ranch Creek at Denver Water's Diversions
- Table H-12.15 Cub and Buck Creeks at Denver Water's Diversions
- Table H-12.16 Steelman Creek at Denver Water's Diversion
- Table H-12.17 Bobtail Creek at Denver Water's Diversion
- Table H-12.18 Jones Creek at Denver Water's Diversion
- Table H-12.19 McQueary Creek at Denver Water's Diversion
- Table H-12.20 South Boulder Creek at Pinecliffe Gage
- Table H-12.21 North Fork South Platte River below Geneva Creek Gage

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Table H-12.1. Fraser River at Denver Water's Diversion

Values in cfs		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Native Flows[1]		9.6	4.7	3.8	4.0	3.7	3.8	7.7	37.5	108.1	51.3	19.2	11.7	22.1
Diversions														
Current	Diversion	8.2	2.9	1.6	1.7	1.4	1.5	5.9	31.1	65.9	35.6	13.6	8.2	14.8
Full Use	Diversion	8.3	2.9	1.6	1.6	1.4	1.5	5.9	31.4	70.1	37.4	13.9	8.3	15.4
No Act	Diversion	8.3	2.9	1.6	1.6	1.4	1.5	5.9	32.8	74.6	37.6	13.9	8.3	15.9
Alt 1a	Diversion	8.3	2.9	1.7	1.7	1.4	1.5	5.9	35.6	87.4	39.7	13.9	8.3	17.4
Alt 1c	Diversion	8.3	2.9	1.7	1.7	1.4	1.5	5.9	35.6	87.1	39.8	13.8	8.3	17.3
Alt 8a	Diversion	8.3	2.9	1.7	1.7	1.4	1.5	5.9	35.6	86.5	39.3	13.9	8.3	17.2
Alt 10a	Diversion	8.3	2.9	1.7	1.7	1.4	1.5	5.9	35.6	86.6	39.2	13.9	8.3	17.2
Alt 13a	Diversion	8.3	2.9	1.7	1.7	1.4	1.5	5.9	35.6	87.2	39.5	13.9	8.3	17.3
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	86%	61%	42%	42%	38%	40%	77%	83%	61%	69%	71%	70%	67%
Full Use	% Flow Diverted	86%	62%	43%	41%	37%	40%	77%	84%	65%	73%	72%	71%	70%
No Act	% Flow Diverted	86%	62%	43%	40%	37%	40%	77%	87%	69%	73%	72%	71%	72%
Alt 1a	% Flow Diverted	87%	62%	44%	43%	38%	41%	77%	95%	81%	77%	72%	71%	79%
Alt 1c	% Flow Diverted	87%	62%	44%	43%	38%	41%	77%	95%	81%	78%	72%	71%	78%
Alt 8a	% Flow Diverted	87%	62%	44%	43%	38%	41%	77%	95%	80%	77%	72%	71%	78%
Alt 10a	% Flow Diverted	87%	62%	44%	43%	38%	41%	77%	95%	80%	76%	72%	71%	78%
Alt 13a	% Flow Diverted	87%	62%	44%	43%	38%	41%	77%	95%	81%	77%	72%	71%	78%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Native Flows[1]		7.6	4.0	3.2	3.5	3.2	3.3	8.3	27.8	58.6	24.4	15.5	11.0	14.2
Diversions														
Current	Diversion	6.0	2.1	1.0	1.1	0.9	1.0	6.7	25.6	49.9	17.5	10.6	7.8	10.8
Full Use	Diversion	6.0	2.1	0.9	1.1	0.8	0.9	6.6	25.6	51.5	19.2	11.6	8.3	11.2
No Act	Diversion	6.0	2.1	0.9	1.1	0.8	0.9	6.6	25.6	51.5	19.2	11.6	8.3	11.2
Alt 1a	Diversion	6.0	2.1	0.9	1.1	0.8	0.9	6.6	25.6	51.5	19.2	11.6	8.3	11.2
Alt 1c	Diversion	6.0	2.1	0.9	1.1	0.8	0.9	6.6	25.6	51.5	19.2	11.6	8.3	11.2
Alt 8a	Diversion	6.0	2.1	0.9	1.1	0.8	0.9	6.6	25.6	51.5	19.2	11.6	8.3	11.2
Alt 10a	Diversion	6.0	2.1	0.9	1.1	0.8	0.9	6.6	25.6	51.5	19.2	11.6	8.3	11.2
Alt 13a	Diversion	6.0	2.1	0.9	1.1	0.8	0.9	6.6	25.6	51.5	19.2	11.6	8.3	11.2
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	79%	53%	29%	32%	27%	29%	80%	92%	85%	72%	68%	71%	76%
Full Use	% Flow Diverted	78%	52%	28%	31%	26%	29%	80%	92%	88%	79%	75%	76%	79%
No Act	% Flow Diverted	78%	52%	28%	31%	26%	29%	80%	92%	88%	79%	75%	76%	79%
Alt 1a	% Flow Diverted	78%	52%	28%	31%	26%	29%	80%	92%	88%	79%	75%	76%	79%
Alt 1c	% Flow Diverted	78%	52%	28%	31%	26%	29%	80%	92%	88%	79%	75%	76%	79%
Alt 8a	% Flow Diverted	78%	52%	28%	31%	26%	29%	80%	92%	88%	79%	75%	76%	79%
Alt 10a	% Flow Diverted	78%	52%	28%	31%	26%	29%	80%	92%	88%	79%	75%	76%	79%
Alt 13a	% Flow Diverted	78%	52%	28%	31%	26%	29%	80%	92%	88%	79%	75%	76%	79%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Native Flows[1]		13.2	5.1	3.9	4.3	4.1	4.2	8.9	43.2	135.0	79.4	26.6	13.8	28.5
Diversions														
Current	Diversion	12.2	3.0	1.9	2.2	1.7	1.6	7.0	27.8	39.8	39.8	21.7	10.4	14.1
Full Use	Diversion	12.2	3.0	1.8	2.1	1.7	1.6	7.0	29.8	45.3	45.0	22.1	10.3	15.2
No Act	Diversion	12.2	3.0	1.8	2.1	1.7	1.6	7.0	31.6	50.4	46.3	22.1	10.3	15.8
Alt 1a	Diversion	12.2	3.0	1.9	2.1	1.7	1.6	7.0	38.6	71.3	45.8	21.9	10.3	18.1
Alt 1c	Diversion	12.2	3.0	1.9	2.1	1.7	1.6	7.0	38.6	70.0	46.1	21.6	10.3	18.0
Alt 8a	Diversion	12.2	3.0	1.9	2.1	1.7	1.6	7.0	38.6	71.3	45.9	21.9	10.3	18.1
Alt 10a	Diversion	12.2	3.0	1.9	2.1	1.7	1.6	7.0	38.6	71.3	45.9	21.9	10.3	18.1
Alt 13a	Diversion	12.2	3.0	1.9	2.1	1.7	1.6	7.0	38.6	71.4	46.0	21.9	10.3	18.1
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	93%	60%	47%	50%	41%	38%	79%	64%	29%	50%	82%	75%	49%
Full Use	% Flow Diverted	93%	60%	47%	48%	41%	37%	78%	69%	34%	57%	83%	75%	53%
No Act	% Flow Diverted	93%	60%	47%	48%	41%	37%	78%	73%	37%	58%	83%	75%	56%
Alt 1a	% Flow Diverted	93%	60%	47%	48%	41%	37%	78%	90%	53%	58%	82%	75%	64%
Alt 1c	% Flow Diverted	93%	60%	47%	48%	41%	37%	78%	90%	52%	58%	81%	75%	63%
Alt 8a	% Flow Diverted	93%	60%	47%	48%	41%	37%	78%	90%	53%	58%	82%	75%	64%
Alt 10a	% Flow Diverted	93%	60%	47%	48%	41%	37%	78%	90%	53%	58%	82%	75%	64%
Alt 13a	% Flow Diverted	93%	60%	47%	48%	41%	37%	78%	90%	53%	58%	82%	75%	64%

Note: Natural flows would be slightly higher at this location because the Berthoud Canal diverts water upstream of Denver Water's diversion.

Table H-12.2. Jim Creek at Denver Water's Diversion

Values in cfs		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Native Flows		3.0	5.1	3.8	2.4	2.3	2.3	3.2	16.1	46.6	23.0	8.5	4.9	10.1
Diversions														
Current	Diversion	3.0	5.1	3.6	2.3	2.1	2.2	3.2	14.3	36.4	21.7	8.5	4.9	8.9
Full Use	Diversion	3.0	5.1	3.7	2.3	2.1	2.2	3.2	14.4	37.9	21.7	8.5	4.9	9.1
No Act	Diversion	3.0	5.1	3.7	2.3	2.1	2.2	3.2	14.9	39.4	21.8	8.5	4.9	9.3
Alt 1a	Diversion	3.0	5.1	3.7	2.4	2.2	2.3	3.2	15.9	41.9	22.0	8.5	4.9	9.6
Alt 1c	Diversion	3.0	5.1	3.7	2.4	2.2	2.3	3.2	15.9	41.5	22.0	8.5	4.9	9.6
Alt 8a	Diversion	3.0	5.1	3.7	2.4	2.2	2.3	3.2	15.9	41.7	22.0	8.5	4.9	9.6
Alt 10a	Diversion	3.0	5.1	3.7	2.4	2.2	2.3	3.2	15.9	41.8	22.0	8.5	4.9	9.6
Alt 13a	Diversion	3.0	5.1	3.7	2.4	2.2	2.3	3.2	15.9	41.8	22.0	8.5	4.9	9.6
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	100%	100%	97%	94%	94%	98%	100%	89%	78%	94%	100%	100%	89%
Full Use	% Flow Diverted	100%	100%	98%	96%	94%	98%	100%	90%	81%	94%	100%	100%	90%
No Act	% Flow Diverted	100%	100%	97%	94%	94%	98%	100%	93%	85%	95%	100%	100%	92%
Alt 1a	% Flow Diverted	100%	100%	99%	100%	99%	100%	100%	99%	90%	96%	100%	100%	95%
Alt 1c	% Flow Diverted	100%	100%	99%	100%	99%	100%	100%	99%	89%	95%	100%	100%	95%
Alt 8a	% Flow Diverted	100%	100%	99%	100%	99%	100%	100%	99%	90%	96%	100%	100%	95%
Alt 10a	% Flow Diverted	100%	100%	99%	100%	99%	100%	100%	99%	90%	96%	100%	100%	95%
Alt 13a	% Flow Diverted	100%	100%	99%	100%	99%	100%	100%	99%	90%	96%	100%	100%	95%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Native Flows		2.4	4.3	3.2	2.2	1.9	2.0	3.4	11.9	25.7	10.8	6.6	4.5	6.6
Diversions														
Current	Diversion	2.4	4.3	3.2	2.1	1.8	2.0	3.4	11.9	25.4	10.8	6.6	4.5	6.5
Full Use	Diversion	2.4	4.3	3.2	2.1	1.8	2.0	3.4	11.9	25.4	10.8	6.6	4.5	6.5
No Act	Diversion	2.4	4.3	3.2	2.1	1.8	2.0	3.4	11.9	25.4	10.8	6.6	4.5	6.5
Alt 1a	Diversion	2.4	4.3	3.2	2.1	1.8	2.0	3.4	11.9	25.4	10.8	6.6	4.5	6.5
Alt 1c	Diversion	2.4	4.3	3.2	2.1	1.8	2.0	3.4	11.9	25.4	10.8	6.6	4.5	6.5
Alt 8a	Diversion	2.4	4.3	3.2	2.1	1.8	2.0	3.4	11.9	25.4	10.8	6.6	4.5	6.5
Alt 10a	Diversion	2.4	4.3	3.2	2.1	1.8	2.0	3.4	11.9	25.4	10.8	6.6	4.5	6.5
Alt 13a	Diversion	2.4	4.3	3.2	2.1	1.8	2.0	3.4	11.9	25.4	10.8	6.6	4.5	6.5
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	100%	100%	98%	97%	95%	98%	100%	100%	99%	100%	100%	100%	99%
Full Use	% Flow Diverted	100%	100%	97%	97%	95%	98%	100%	100%	99%	100%	100%	100%	99%
No Act	% Flow Diverted	100%	100%	97%	97%	95%	98%	100%	100%	99%	100%	100%	100%	99%
Alt 1a	% Flow Diverted	100%	100%	97%	97%	95%	98%	100%	100%	99%	100%	100%	100%	99%
Alt 1c	% Flow Diverted	100%	100%	97%	97%	95%	98%	100%	100%	99%	100%	100%	100%	99%
Alt 8a	% Flow Diverted	100%	100%	97%	97%	95%	98%	100%	100%	99%	100%	100%	100%	99%
Alt 10a	% Flow Diverted	100%	100%	97%	97%	95%	98%	100%	100%	99%	100%	100%	100%	99%
Alt 13a	% Flow Diverted	100%	100%	97%	97%	95%	98%	100%	100%	99%	100%	100%	100%	99%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Native Flows		4.1	5.5	3.9	2.6	2.5	2.5	3.6	18.5	57.9	35.7	11.8	5.9	12.9
Diversions														
Current	Diversion	4.1	5.5	3.9	2.6	2.5	2.5	3.6	12.9	27.3	28.1	11.7	5.9	9.2
Full Use	Diversion	4.1	5.5	3.9	2.6	2.5	2.5	3.6	13.5	30.5	28.6	11.8	5.9	9.6
No Act	Diversion	4.1	5.5	3.9	2.6	2.5	2.5	3.6	14.4	33.8	28.8	11.8	5.9	10.0
Alt 1a	Diversion	4.1	5.5	3.9	2.6	2.5	2.5	3.6	17.3	38.0	29.1	11.8	5.9	10.6
Alt 1c	Diversion	4.1	5.5	3.9	2.6	2.5	2.5	3.6	17.2	37.6	28.8	11.6	5.9	10.5
Alt 8a	Diversion	4.1	5.5	3.9	2.6	2.5	2.5	3.6	17.3	37.7	29.1	11.8	5.9	10.6
Alt 10a	Diversion	4.1	5.5	3.9	2.6	2.5	2.5	3.6	17.3	37.7	29.1	11.8	5.9	10.6
Alt 13a	Diversion	4.1	5.5	3.9	2.6	2.5	2.5	3.6	17.3	37.6	29.1	11.8	5.9	10.5
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	100%	100%	100%	100%	100%	99%	100%	70%	47%	79%	99%	100%	72%
Full Use	% Flow Diverted	100%	100%	100%	100%	100%	99%	100%	73%	53%	80%	100%	100%	74%
No Act	% Flow Diverted	100%	100%	100%	100%	100%	99%	100%	78%	58%	81%	100%	100%	77%
Alt 1a	% Flow Diverted	100%	100%	100%	100%	100%	99%	100%	94%	66%	82%	100%	100%	82%
Alt 1c	% Flow Diverted	100%	100%	100%	100%	100%	99%	100%	93%	65%	81%	98%	100%	81%
Alt 8a	% Flow Diverted	100%	100%	100%	100%	100%	99%	100%	94%	65%	81%	100%	100%	82%
Alt 10a	% Flow Diverted	100%	100%	100%	100%	100%	99%	100%	94%	65%	81%	100%	100%	82%
Alt 13a	% Flow Diverted	100%	100%	100%	100%	100%	99%	100%	94%	65%	82%	100%	100%	82%

Table H-12.3. St. Louis Creek at Denver Water's Diversion

Values in cfs		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Native Flows		4.5	2.8	2.1	1.9	1.8	1.7	2.4	19.2	65.6	37.9	13.4	6.8	13.3
Diversions														
Current	Diversion	1.7	0.4	0.1	0.0	0.0	0.0	0.4	9.9	25.9	14.5	3.0	1.8	4.8
Full Use	Diversion	1.7	0.4	0.1	0.0	0.0	0.0	0.4	10.2	26.6	16.6	3.4	1.9	5.1
No Act	Diversion	1.7	0.4	0.1	0.0	0.0	0.0	0.4	10.8	28.4	17.4	3.6	1.9	5.4
Alt 1a	Diversion	1.8	0.5	0.1	0.0	0.0	0.0	0.4	12.6	36.6	20.1	3.8	1.9	6.5
Alt 1c	Diversion	1.8	0.5	0.1	0.0	0.0	0.0	0.4	12.5	36.6	20.0	3.8	1.9	6.5
Alt 8a	Diversion	1.8	0.5	0.1	0.0	0.0	0.0	0.4	12.5	36.2	19.3	3.5	1.9	6.3
Alt 10a	Diversion	1.8	0.5	0.1	0.0	0.0	0.0	0.4	12.5	36.2	19.3	3.5	1.9	6.3
Alt 13a	Diversion	1.8	0.5	0.1	0.0	0.0	0.0	0.4	12.5	36.5	19.6	3.7	1.9	6.4
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	37%	14%	3%	1%	2%	1%	15%	52%	39%	38%	23%	27%	36%
Full Use	% Flow Diverted	38%	16%	4%	2%	3%	1%	16%	53%	41%	44%	25%	28%	38%
No Act	% Flow Diverted	38%	16%	4%	2%	3%	1%	16%	56%	43%	46%	27%	28%	40%
Alt 1a	% Flow Diverted	39%	16%	4%	2%	3%	1%	16%	65%	56%	53%	28%	28%	49%
Alt 1c	% Flow Diverted	39%	16%	4%	2%	3%	1%	16%	65%	56%	53%	28%	28%	48%
Alt 8a	% Flow Diverted	39%	16%	4%	2%	3%	1%	16%	65%	55%	51%	26%	28%	48%
Alt 10a	% Flow Diverted	39%	16%	4%	2%	3%	1%	16%	65%	55%	51%	26%	28%	48%
Alt 13a	% Flow Diverted	39%	16%	4%	2%	3%	1%	16%	65%	56%	52%	27%	28%	48%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Native Flows		4.6	2.5	2.0	1.8	1.7	1.6	2.6	15.4	31.8	16.0	7.7	4.5	7.7
Diversions														
Current	Diversion	1.9	0.2	0.0	0.0	0.0	0.0	0.4	9.0	22.4	6.8	0.7	0.6	3.5
Full Use	Diversion	1.9	0.2	0.0	0.0	0.0	0.0	0.4	9.0	24.0	8.2	1.5	0.8	3.8
No Act	Diversion	1.9	0.2	0.0	0.0	0.0	0.0	0.4	9.0	24.0	8.2	1.5	0.8	3.8
Alt 1a	Diversion	1.9	0.2	0.0	0.0	0.0	0.0	0.4	9.0	24.0	8.2	1.5	0.8	3.8
Alt 1c	Diversion	1.9	0.2	0.0	0.0	0.0	0.0	0.4	9.0	24.0	8.2	1.5	0.8	3.8
Alt 8a	Diversion	1.9	0.2	0.0	0.0	0.0	0.0	0.4	9.0	24.0	8.2	1.5	0.8	3.8
Alt 10a	Diversion	1.9	0.2	0.0	0.0	0.0	0.0	0.4	9.0	24.0	8.2	1.5	0.8	3.8
Alt 13a	Diversion	1.9	0.2	0.0	0.0	0.0	0.0	0.4	9.0	24.0	8.2	1.5	0.8	3.8
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	41%	10%	1%	0%	0%	0%	14%	59%	70%	43%	10%	14%	46%
Full Use	% Flow Diverted	41%	10%	1%	0%	0%	0%	14%	59%	75%	51%	20%	18%	50%
No Act	% Flow Diverted	41%	10%	1%	0%	0%	0%	14%	59%	75%	51%	20%	18%	50%
Alt 1a	% Flow Diverted	41%	10%	1%	0%	0%	0%	14%	59%	75%	51%	20%	18%	50%
Alt 1c	% Flow Diverted	41%	10%	1%	0%	0%	0%	14%	59%	75%	51%	20%	18%	50%
Alt 8a	% Flow Diverted	41%	10%	1%	0%	0%	0%	14%	59%	75%	51%	20%	18%	50%
Alt 10a	% Flow Diverted	41%	10%	1%	0%	0%	0%	14%	59%	75%	51%	20%	18%	50%
Alt 13a	% Flow Diverted	41%	10%	1%	0%	0%	0%	14%	59%	75%	51%	20%	18%	50%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Native Flows		6.0	3.4	2.5	1.8	2.1	1.9	3.4	27.4	90.6	62.9	23.4	11.0	19.7
Diversions														
Current	Diversion	2.6	0.5	0.0	0.0	0.3	0.1	0.9	8.9	6.8	13.5	4.1	4.0	3.5
Full Use	Diversion	2.6	0.5	0.0	0.0	0.3	0.1	0.9	12.7	7.3	16.4	4.4	4.5	4.2
No Act	Diversion	2.6	0.5	0.0	0.0	0.3	0.1	0.9	13.0	8.6	17.6	6.4	4.8	4.6
Alt 1a	Diversion	2.6	0.5	0.0	0.0	0.3	0.1	0.9	17.3	18.3	18.2	5.4	4.8	5.7
Alt 1c	Diversion	2.6	0.5	0.0	0.0	0.3	0.1	0.9	17.2	18.0	17.5	5.4	4.8	5.6
Alt 8a	Diversion	2.6	0.5	0.0	0.0	0.3	0.1	0.9	17.1	17.3	18.0	5.4	4.8	5.6
Alt 10a	Diversion	2.6	0.5	0.0	0.0	0.3	0.1	0.9	17.2	17.4	17.7	5.4	4.8	5.6
Alt 13a	Diversion	2.6	0.5	0.0	0.0	0.3	0.1	0.9	17.2	18.0	17.4	5.4	4.8	5.6
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	43%	16%	2%	0%	13%	4%	28%	33%	8%	21%	17%	36%	18%
Full Use	% Flow Diverted	43%	16%	2%	0%	13%	4%	28%	47%	8%	26%	19%	41%	21%
No Act	% Flow Diverted	43%	16%	2%	0%	13%	4%	28%	47%	9%	28%	27%	44%	23%
Alt 1a	% Flow Diverted	43%	16%	2%	0%	13%	4%	28%	63%	20%	29%	23%	44%	29%
Alt 1c	% Flow Diverted	43%	16%	2%	0%	13%	4%	28%	63%	20%	28%	23%	44%	29%
Alt 8a	% Flow Diverted	43%	16%	2%	0%	13%	4%	28%	62%	19%	29%	23%	44%	28%
Alt 10a	% Flow Diverted	43%	16%	2%	0%	13%	4%	28%	63%	19%	28%	23%	44%	28%
Alt 13a	% Flow Diverted	43%	16%	2%	0%	13%	4%	28%	63%	20%	28%	23%	44%	29%

Table H-12.4. St. Louis Creek Tributaries at Denver Water's Diversions

Values in cfs		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Native Flows		3.9	2.4	1.8	1.6	1.5	1.4	2.1	16.4	55.9	32.3	11.4	5.8	11.4
Diversions														
Current	Diversion	3.8	2.3	1.7	1.5	1.4	1.4	2.1	13.3	28.5	20.4	9.7	5.7	7.7
Full Use	Diversion	3.8	2.2	1.7	1.5	1.4	1.4	2.1	13.6	29.5	22.2	9.8	5.8	7.9
No Act	Diversion	3.8	2.2	1.7	1.5	1.4	1.4	2.1	14.2	31.6	22.6	10.1	5.8	8.2
Alt 1a	Diversion	3.9	2.3	1.8	1.6	1.5	1.4	2.1	16.1	40.2	25.2	10.5	5.8	9.4
Alt 1c	Diversion	3.9	2.3	1.8	1.6	1.5	1.4	2.1	16.1	40.0	25.4	10.5	5.8	9.4
Alt 8a	Diversion	3.9	2.3	1.8	1.6	1.5	1.4	2.1	16.1	39.6	24.3	10.0	5.8	9.2
Alt 10a	Diversion	3.9	2.3	1.8	1.6	1.5	1.4	2.1	16.1	39.6	24.4	10.0	5.8	9.2
Alt 13a	Diversion	3.9	2.3	1.8	1.6	1.5	1.4	2.1	16.1	40.0	24.9	10.3	5.8	9.3
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	97%	96%	97%	95%	95%	98%	100%	82%	51%	63%	85%	98%	67%
Full Use	% Flow Diverted	98%	94%	96%	96%	95%	98%	100%	83%	53%	69%	86%	99%	70%
No Act	% Flow Diverted	99%	94%	96%	95%	95%	98%	100%	87%	57%	70%	89%	100%	72%
Alt 1a	% Flow Diverted	100%	97%	97%	100%	100%	100%	100%	98%	72%	78%	91%	100%	82%
Alt 1c	% Flow Diverted	100%	97%	97%	100%	100%	100%	100%	98%	72%	79%	92%	100%	82%
Alt 8a	% Flow Diverted	100%	97%	97%	100%	100%	100%	100%	98%	71%	75%	87%	100%	81%
Alt 10a	% Flow Diverted	100%	97%	97%	100%	100%	100%	100%	98%	71%	76%	87%	100%	81%
Alt 13a	% Flow Diverted	100%	97%	97%	100%	100%	100%	100%	98%	72%	77%	90%	100%	82%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Native Flows		3.9	2.2	1.7	1.5	1.4	1.4	2.3	13.1	27.1	13.6	6.6	3.9	6.6
Diversions														
Current	Diversion	3.9	2.2	1.7	1.5	1.4	1.4	2.3	13.1	27.1	13.6	6.6	3.9	6.6
Full Use	Diversion	3.9	2.0	1.5	1.5	1.4	1.4	2.3	13.1	27.1	13.6	6.6	3.8	6.5
No Act	Diversion	3.9	2.0	1.5	1.5	1.4	1.4	2.3	13.1	27.1	13.6	6.6	3.8	6.5
Alt 1a	Diversion	3.9	2.0	1.5	1.5	1.4	1.4	2.3	13.1	27.1	13.6	6.6	3.8	6.5
Alt 1c	Diversion	3.9	2.0	1.5	1.5	1.4	1.4	2.3	13.1	27.1	13.6	6.6	3.8	6.5
Alt 8a	Diversion	3.9	2.0	1.5	1.5	1.4	1.4	2.3	13.1	27.1	13.6	6.6	3.8	6.5
Alt 10a	Diversion	3.9	2.0	1.5	1.5	1.4	1.4	2.3	13.1	27.1	13.6	6.6	3.8	6.5
Alt 13a	Diversion	3.9	2.0	1.5	1.5	1.4	1.4	2.3	13.1	27.1	13.6	6.6	3.8	6.5
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Full Use	% Flow Diverted	100%	92%	87%	100%	100%	100%	100%	100%	100%	100%	100%	99%	99%
No Act	% Flow Diverted	100%	92%	87%	100%	100%	100%	100%	100%	100%	100%	100%	99%	99%
Alt 1a	% Flow Diverted	100%	92%	87%	100%	100%	100%	100%	100%	100%	100%	100%	99%	99%
Alt 1c	% Flow Diverted	100%	92%	87%	100%	100%	100%	100%	100%	100%	100%	100%	99%	99%
Alt 8a	% Flow Diverted	100%	92%	87%	100%	100%	100%	100%	100%	100%	100%	100%	99%	99%
Alt 10a	% Flow Diverted	100%	92%	87%	100%	100%	100%	100%	100%	100%	100%	100%	99%	99%
Alt 13a	% Flow Diverted	100%	92%	87%	100%	100%	100%	100%	100%	100%	100%	100%	99%	99%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Native Flows		5.1	2.8	2.1	1.5	1.8	1.6	2.9	23.3	77.2	53.6	19.9	9.4	16.8
Diversions														
Current	Diversion	5.1	2.8	2.1	1.5	1.8	1.6	2.9	12.3	9.3	20.5	9.4	8.3	6.5
Full Use	Diversion	5.1	2.7	2.1	1.5	1.8	1.6	2.9	14.9	11.6	22.8	10.2	9.1	7.2
No Act	Diversion	5.1	2.7	2.1	1.5	1.8	1.6	2.9	15.5	13.4	24.0	12.5	9.3	7.7
Alt 1a	Diversion	5.1	2.7	2.1	1.5	1.8	1.6	2.9	20.8	23.6	24.1	11.4	9.3	8.9
Alt 1c	Diversion	5.1	2.7	2.1	1.5	1.8	1.6	2.9	20.8	22.6	23.4	11.6	9.4	8.8
Alt 8a	Diversion	5.1	2.7	2.1	1.5	1.8	1.6	2.9	20.8	22.0	23.6	11.4	9.3	8.7
Alt 10a	Diversion	5.1	2.7	2.1	1.5	1.8	1.6	2.9	20.8	22.3	24.0	11.4	9.3	8.8
Alt 13a	Diversion	5.1	2.7	2.1	1.5	1.8	1.6	2.9	20.8	23.1	23.8	11.5	9.3	8.9
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	100%	100%	100%	100%	100%	98%	100%	53%	12%	38%	47%	89%	39%
Full Use	% Flow Diverted	100%	96%	98%	100%	100%	98%	100%	64%	15%	42%	51%	97%	43%
No Act	% Flow Diverted	100%	96%	98%	100%	100%	98%	100%	66%	17%	45%	63%	99%	46%
Alt 1a	% Flow Diverted	100%	96%	98%	100%	100%	98%	100%	89%	31%	45%	57%	99%	53%
Alt 1c	% Flow Diverted	100%	96%	98%	100%	100%	98%	100%	89%	29%	44%	58%	100%	52%
Alt 8a	% Flow Diverted	100%	96%	98%	100%	100%	98%	100%	89%	28%	44%	57%	99%	52%
Alt 10a	% Flow Diverted	100%	96%	98%	100%	100%	98%	100%	89%	29%	45%	57%	99%	52%
Alt 13a	% Flow Diverted	100%	96%	98%	100%	100%	98%	100%	89%	30%	44%	58%	99%	53%

Note: Native flows and diversions were combined for tributaries to St. Louis Creek that Denver Water diverts from.

Table H-12.5. King Creek at Denver Water's Diversion

Values in cfs		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Native Flows		0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.7	2.5	1.5	0.5	0.3	0.5
Diversions														
Current	Diversion	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.6	1.3	1.0	0.4	0.3	0.4
Full Use	Diversion	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.6	1.4	1.0	0.5	0.3	0.4
No Act	Diversion	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.6	1.5	1.1	0.5	0.3	0.4
Alt 1a	Diversion	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.7	1.9	1.2	0.5	0.3	0.4
Alt 1c	Diversion	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.7	1.8	1.2	0.5	0.3	0.4
Alt 8a	Diversion	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.7	1.8	1.1	0.5	0.3	0.4
Alt 10a	Diversion	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.7	1.8	1.1	0.5	0.3	0.4
Alt 13a	Diversion	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.7	1.9	1.2	0.5	0.3	0.4
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	98%	95%	98%	96%	94%	97%	100%	82%	52%	66%	85%	99%	69%
Full Use	% Flow Diverted	99%	87%	86%	96%	94%	98%	100%	83%	54%	70%	87%	100%	71%
No Act	% Flow Diverted	99%	88%	86%	96%	94%	98%	100%	86%	59%	72%	89%	100%	73%
Alt 1a	% Flow Diverted	100%	90%	87%	100%	99%	100%	100%	99%	73%	80%	92%	100%	83%
Alt 1c	% Flow Diverted	100%	90%	87%	100%	99%	100%	100%	99%	73%	80%	92%	100%	83%
Alt 8a	% Flow Diverted	100%	90%	87%	100%	99%	100%	100%	99%	72%	77%	88%	100%	82%
Alt 10a	% Flow Diverted	100%	90%	87%	100%	99%	100%	100%	99%	72%	77%	88%	100%	82%
Alt 13a	% Flow Diverted	100%	90%	87%	100%	99%	100%	100%	99%	73%	79%	90%	100%	83%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Native Flows		0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.6	1.2	0.6	0.3	0.2	0.3
Diversions														
Current	Diversion	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.6	1.2	0.6	0.3	0.2	0.3
Full Use	Diversion	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.6	1.2	0.6	0.3	0.2	0.3
No Act	Diversion	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.6	1.2	0.6	0.3	0.2	0.3
Alt 1a	Diversion	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.6	1.2	0.6	0.3	0.2	0.3
Alt 1c	Diversion	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.6	1.2	0.6	0.3	0.2	0.3
Alt 8a	Diversion	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.6	1.2	0.6	0.3	0.2	0.3
Alt 10a	Diversion	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.6	1.2	0.6	0.3	0.2	0.3
Alt 13a	Diversion	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.6	1.2	0.6	0.3	0.2	0.3
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	100%	100%	99%	100%	99%	100%	100%	100%	100%	100%	100%	100%	100%
Full Use	% Flow Diverted	100%	78%	67%	100%	99%	100%	100%	100%	100%	100%	100%	100%	99%
No Act	% Flow Diverted	100%	78%	67%	100%	99%	100%	100%	100%	100%	100%	100%	100%	99%
Alt 1a	% Flow Diverted	100%	78%	67%	100%	99%	100%	100%	100%	100%	100%	100%	100%	99%
Alt 1c	% Flow Diverted	100%	78%	67%	100%	99%	100%	100%	100%	100%	100%	100%	100%	99%
Alt 8a	% Flow Diverted	100%	78%	67%	100%	99%	100%	100%	100%	100%	100%	100%	100%	99%
Alt 10a	% Flow Diverted	100%	78%	67%	100%	99%	100%	100%	100%	100%	100%	100%	100%	99%
Alt 13a	% Flow Diverted	100%	78%	67%	100%	99%	100%	100%	100%	100%	100%	100%	100%	99%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Native Flows		0.2	0.1	0.1	0.1	0.1	0.1	0.1	1.1	3.5	2.5	0.9	0.4	0.8
Diversions														
Current	Diversion	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.6	0.5	1.0	0.4	0.4	0.3
Full Use	Diversion	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.7	0.7	1.1	0.5	0.4	0.4
No Act	Diversion	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.7	0.8	1.1	0.6	0.4	0.4
Alt 1a	Diversion	0.2	0.1	0.1	0.1	0.1	0.1	0.1	1.0	1.2	1.1	0.5	0.4	0.4
Alt 1c	Diversion	0.2	0.1	0.1	0.1	0.1	0.1	0.1	1.0	1.2	1.1	0.6	0.4	0.4
Alt 8a	Diversion	0.2	0.1	0.1	0.1	0.1	0.1	0.1	1.0	1.1	1.1	0.5	0.4	0.4
Alt 10a	Diversion	0.2	0.1	0.1	0.1	0.1	0.1	0.1	1.0	1.1	1.1	0.5	0.4	0.4
Alt 13a	Diversion	0.2	0.1	0.1	0.1	0.1	0.1	0.1	1.0	1.2	1.1	0.5	0.4	0.4
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	100%	100%	101%	100%	100%	99%	100%	55%	13%	39%	46%	93%	40%
Full Use	% Flow Diverted	100%	86%	90%	100%	100%	100%	100%	64%	20%	43%	54%	97%	46%
No Act	% Flow Diverted	100%	86%	90%	100%	100%	100%	100%	66%	23%	44%	61%	99%	48%
Alt 1a	% Flow Diverted	100%	86%	90%	100%	100%	100%	100%	91%	34%	43%	60%	99%	55%
Alt 1c	% Flow Diverted	100%	86%	90%	100%	100%	100%	100%	91%	33%	43%	60%	100%	55%
Alt 8a	% Flow Diverted	100%	86%	90%	100%	100%	100%	100%	91%	33%	43%	59%	99%	54%
Alt 10a	% Flow Diverted	100%	86%	90%	100%	100%	100%	100%	91%	33%	43%	59%	99%	55%
Alt 13a	% Flow Diverted	100%	86%	90%	100%	100%	100%	100%	91%	34%	44%	60%	99%	55%

Table H-12.6. Vasquez Creek below Gumlick Tunnel

Values in cfs		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Native Flows		3.2	2.5	2.0	1.6	1.2	1.2	1.8	11.9	37.3	21.4	9.5	5.2	8.2
Gumlick Tunnel Delivery														
Current	Delivery	6.4	4.2	3.0	2.4	2.1	2.1	4.4	29.0	47.7	19.5	16.1	9.3	12.2
Full Use	Delivery	6.7	4.4	3.1	2.4	2.1	2.2	4.4	29.5	48.1	31.5	16.8	9.7	13.4
No Act	Delivery	6.7	4.4	3.1	2.4	2.1	2.2	4.4	30.6	51.3	33.5	17.3	9.7	14.0
Alt 1a	Delivery	6.9	4.6	3.2	2.6	2.3	2.2	4.4	33.0	66.0	39.3	18.1	9.8	16.0
Alt 1c	Delivery	6.9	4.6	3.2	2.6	2.3	2.2	4.4	33.0	65.6	39.1	18.1	9.8	16.0
Alt 8a	Delivery	6.9	4.6	3.2	2.6	2.3	2.2	4.4	33.0	64.9	36.9	17.0	9.8	15.7
Alt 10a	Delivery	6.9	4.6	3.2	2.6	2.3	2.2	4.4	33.0	64.8	36.8	17.0	9.8	15.6
Alt 13a	Delivery	6.9	4.6	3.2	2.6	2.3	2.2	4.4	33.0	65.6	38.1	17.7	9.8	15.9
Percent Change from Natural Flow														
% Added to Native Flow														
Current	% Flow Added	202%	166%	146%	150%	171%	180%	242%	243%	128%	91%	170%	180%	148%
Full Use	% Flow Added	209%	172%	151%	153%	171%	180%	242%	247%	129%	147%	177%	188%	163%
No Act	% Flow Added	211%	172%	152%	150%	171%	180%	242%	256%	137%	156%	182%	189%	169%
Alt 1a	% Flow Added	217%	182%	157%	163%	185%	186%	242%	277%	177%	183%	191%	189%	194%
Alt 1c	% Flow Added	217%	182%	157%	163%	185%	186%	242%	277%	176%	183%	191%	190%	194%
Alt 8a	% Flow Added	217%	182%	157%	163%	185%	186%	242%	277%	174%	172%	179%	189%	190%
Alt 10a	% Flow Added	217%	182%	157%	163%	185%	186%	242%	277%	174%	172%	179%	189%	190%
Alt 13a	% Flow Added	217%	182%	157%	163%	185%	186%	242%	277%	176%	178%	187%	189%	192%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Native Flows		3.0	2.2	1.5	1.1	1.0	1.0	1.8	9.7	16.8	9.2	5.8	3.6	4.7
Gumlick Tunnel Delivery														
Current	Delivery	6.7	4.4	3.2	2.3	1.9	1.8	4.4	32.0	68.6	7.1	12.6	7.6	12.7
Full Use	Delivery	6.7	4.4	3.2	2.3	1.9	1.8	4.4	32.0	71.7	23.8	13.4	7.9	14.5
No Act	Delivery	6.7	4.4	3.2	2.3	1.9	1.8	4.4	32.0	71.7	23.8	13.4	7.9	14.5
Alt 1a	Delivery	6.7	4.4	3.2	2.3	1.9	1.8	4.4	32.0	71.7	23.8	13.4	7.9	14.5
Alt 1c	Delivery	6.7	4.4	3.2	2.3	1.9	1.8	4.4	32.0	71.7	23.8	13.4	7.9	14.5
Alt 8a	Delivery	6.7	4.4	3.2	2.3	1.9	1.8	4.4	32.0	71.7	23.8	13.4	7.9	14.5
Alt 10a	Delivery	6.7	4.4	3.2	2.3	1.9	1.8	4.4	32.0	71.7	23.8	13.4	7.9	14.5
Alt 13a	Delivery	6.7	4.4	3.2	2.3	1.9	1.8	4.4	32.0	71.7	23.8	13.4	7.9	14.5
Percent Change from Natural Flow														
% Added to Native Flow														
Current	% Flow Added	221%	199%	205%	205%	195%	183%	242%	328%	409%	77%	215%	208%	268%
Full Use	% Flow Added	221%	199%	206%	205%	195%	184%	241%	328%	427%	258%	230%	216%	305%
No Act	% Flow Added	221%	199%	206%	205%	195%	184%	241%	328%	427%	258%	230%	216%	305%
Alt 1a	% Flow Added	221%	199%	206%	205%	195%	184%	241%	328%	427%	258%	230%	216%	305%
Alt 1c	% Flow Added	221%	199%	206%	205%	195%	184%	241%	328%	427%	258%	230%	216%	305%
Alt 8a	% Flow Added	221%	199%	206%	205%	195%	184%	241%	328%	427%	258%	230%	216%	305%
Alt 10a	% Flow Added	221%	199%	206%	205%	195%	184%	241%	328%	427%	258%	230%	216%	305%
Alt 13a	% Flow Added	221%	199%	206%	205%	195%	184%	241%	328%	427%	258%	230%	216%	305%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Native Flows		4.1	2.7	2.4	1.8	1.4	1.4	1.9	14.7	53.7	36.6	14.1	7.6	11.9
Gumlick Tunnel Delivery														
Current	Delivery	10.0	5.7	3.7	3.2	3.0	2.8	5.2	18.8	8.4	17.4	17.0	11.4	8.9
Full Use	Delivery	10.0	5.7	3.7	3.2	3.0	2.8	5.2	25.4	9.2	20.2	17.9	13.0	9.9
No Act	Delivery	10.0	5.7	3.7	3.2	3.0	2.8	5.2	26.0	10.0	22.3	20.6	13.5	10.5
Alt 1a	Delivery	10.0	5.7	3.7	3.2	3.0	2.8	5.2	31.7	22.3	22.4	19.4	13.6	11.9
Alt 1c	Delivery	10.0	5.7	3.7	3.2	3.0	2.8	5.2	31.7	22.3	22.5	18.8	13.6	11.9
Alt 8a	Delivery	10.0	5.7	3.7	3.2	3.0	2.8	5.2	31.7	22.3	22.8	19.4	13.6	11.9
Alt 10a	Delivery	10.0	5.7	3.7	3.2	3.0	2.8	5.2	31.7	22.3	22.7	19.4	13.6	11.9
Alt 13a	Delivery	10.0	5.7	3.7	3.2	3.0	2.8	5.2	31.7	22.3	22.3	19.4	13.6	11.9
Percent Change from Natural Flow														
% Added to Native Flow														
Current	% Flow Added	245%	206%	156%	175%	207%	205%	269%	127%	16%	48%	121%	151%	75%
Full Use	% Flow Added	245%	206%	156%	175%	207%	205%	269%	173%	17%	55%	127%	171%	84%
No Act	% Flow Added	245%	206%	156%	175%	207%	205%	269%	177%	19%	61%	146%	178%	88%
Alt 1a	% Flow Added	245%	206%	156%	175%	207%	205%	269%	215%	41%	61%	137%	179%	100%
Alt 1c	% Flow Added	245%	206%	156%	175%	207%	205%	269%	215%	41%	61%	133%	180%	100%
Alt 8a	% Flow Added	245%	206%	156%	175%	207%	205%	269%	215%	41%	62%	137%	179%	101%
Alt 10a	% Flow Added	245%	206%	156%	175%	207%	205%	269%	215%	41%	62%	137%	179%	100%
Alt 13a	% Flow Added	245%	206%	156%	175%	207%	205%	269%	215%	41%	61%	137%	179%	100%

Table H-12.7. Vasquez Creek at Denver Water's Diversion

Values in cfs		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Native Flows		11.9	9.7	7.8	5.5	4.7	4.0	6.3	39.3	106.3	63.7	28.0	16.2	25.3
Diversions														
Current	Diversion	8.8	6.3	4.6	2.5	1.8	1.3	3.5	28.0	49.6	37.4	17.0	10.8	14.3
Full Use	Diversion	8.6	4.9	3.5	2.6	1.8	1.3	3.5	28.6	52.8	39.4	18.5	10.7	14.7
No Act	Diversion	8.6	4.9	3.5	2.5	1.8	1.3	3.5	29.9	57.4	40.0	18.8	10.7	15.2
Alt 1a	Diversion	8.7	5.0	3.6	2.7	1.9	1.3	3.5	33.4	72.7	46.2	19.6	10.7	17.5
Alt 1c	Diversion	8.7	5.0	3.6	2.7	1.9	1.3	3.5	33.4	71.9	46.1	19.7	10.7	17.4
Alt 8a	Diversion	8.7	5.0	3.6	2.7	1.9	1.3	3.5	33.4	71.7	43.8	18.8	10.7	17.1
Alt 10a	Diversion	8.7	5.0	3.6	2.7	1.9	1.3	3.5	33.4	71.7	43.9	18.8	10.7	17.1
Alt 13a	Diversion	8.7	5.0	3.6	2.7	1.9	1.3	3.5	33.4	72.4	45.1	19.2	10.7	17.3
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	74%	65%	60%	45%	38%	32%	56%	71%	47%	59%	61%	67%	57%
Full Use	% Flow Diverted	72%	50%	45%	47%	38%	32%	56%	73%	50%	62%	66%	66%	58%
No Act	% Flow Diverted	73%	51%	45%	46%	38%	32%	56%	76%	54%	63%	67%	66%	60%
Alt 1a	% Flow Diverted	73%	51%	46%	49%	40%	33%	56%	85%	68%	73%	70%	66%	69%
Alt 1c	% Flow Diverted	73%	51%	46%	49%	40%	33%	56%	85%	68%	72%	70%	66%	69%
Alt 8a	% Flow Diverted	73%	51%	46%	49%	40%	33%	56%	85%	68%	69%	67%	66%	68%
Alt 10a	% Flow Diverted	73%	51%	46%	49%	40%	33%	56%	85%	68%	69%	67%	66%	68%
Alt 13a	% Flow Diverted	73%	51%	46%	49%	40%	33%	56%	85%	68%	71%	69%	66%	68%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Native Flows		10.6	8.1	5.6	3.7	3.6	3.1	6.2	32.1	51.3	24.6	17.1	12.0	14.8
Diversions														
Current	Diversion	7.7	5.1	2.8	1.0	0.9	0.6	3.5	26.7	43.8	17.1	10.0	7.2	10.5
Full Use	Diversion	7.3	3.4	1.6	1.0	0.9	0.6	3.5	26.7	45.1	18.4	10.9	7.1	10.5
No Act	Diversion	7.3	3.4	1.6	1.0	0.9	0.6	3.5	26.7	45.1	18.4	10.9	7.1	10.5
Alt 1a	Diversion	7.3	3.4	1.6	1.0	0.9	0.6	3.5	26.7	45.1	18.4	10.9	7.1	10.5
Alt 1c	Diversion	7.3	3.4	1.6	1.0	0.9	0.6	3.5	26.7	45.1	18.4	10.9	7.1	10.5
Alt 8a	Diversion	7.3	3.4	1.6	1.0	0.9	0.6	3.5	26.7	45.1	18.4	10.9	7.1	10.5
Alt 10a	Diversion	7.3	3.4	1.6	1.0	0.9	0.6	3.5	26.7	45.1	18.4	10.9	7.1	10.5
Alt 13a	Diversion	7.3	3.4	1.6	1.0	0.9	0.6	3.5	26.7	45.1	18.4	10.9	7.1	10.5
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	73%	63%	49%	28%	27%	18%	56%	83%	85%	70%	59%	60%	71%
Full Use	% Flow Diverted	69%	43%	29%	28%	27%	18%	56%	83%	88%	75%	64%	59%	71%
No Act	% Flow Diverted	69%	43%	29%	28%	27%	18%	56%	83%	88%	75%	64%	59%	71%
Alt 1a	% Flow Diverted	69%	43%	29%	28%	27%	18%	56%	83%	88%	75%	64%	59%	71%
Alt 1c	% Flow Diverted	69%	43%	29%	28%	27%	18%	56%	83%	88%	75%	64%	59%	71%
Alt 8a	% Flow Diverted	69%	43%	29%	28%	27%	18%	56%	83%	88%	75%	64%	59%	71%
Alt 10a	% Flow Diverted	69%	43%	29%	28%	27%	18%	56%	83%	88%	75%	64%	59%	71%
Alt 13a	% Flow Diverted	69%	43%	29%	28%	27%	18%	56%	83%	88%	75%	64%	59%	71%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Native Flows		16.8	11.6	9.7	6.6	4.4	3.7	6.3	48.9	161.5	107.6	43.5	25.4	37.2
Diversions														
Current	Diversion	13.8	8.5	6.7	3.6	1.4	0.9	3.3	25.0	31.4	43.2	23.3	19.3	15.0
Full Use	Diversion	13.7	7.2	5.5	3.6	1.4	0.9	3.3	28.8	36.9	47.2	27.7	19.2	16.3
No Act	Diversion	13.7	7.2	5.5	3.6	1.4	0.9	3.3	29.7	40.9	48.6	29.4	19.7	17.0
Alt 1a	Diversion	13.7	7.2	5.5	3.6	1.4	0.9	3.3	39.8	63.6	47.8	29.3	19.7	19.7
Alt 1c	Diversion	13.7	7.2	5.5	3.6	1.4	0.9	3.3	39.8	60.9	46.9	29.3	19.7	19.4
Alt 8a	Diversion	13.7	7.2	5.5	3.6	1.4	0.9	3.3	39.8	62.9	47.9	29.3	19.7	19.6
Alt 10a	Diversion	13.7	7.2	5.5	3.6	1.4	0.9	3.3	39.8	63.2	47.8	29.3	19.7	19.6
Alt 13a	Diversion	13.7	7.2	5.5	3.6	1.4	0.9	3.3	39.8	62.5	48.6	29.3	19.7	19.6
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	82%	73%	69%	55%	31%	25%	54%	51%	19%	40%	54%	76%	40%
Full Use	% Flow Diverted	82%	62%	57%	55%	31%	25%	54%	59%	23%	44%	64%	75%	44%
No Act	% Flow Diverted	82%	62%	57%	55%	31%	25%	54%	61%	25%	45%	67%	77%	46%
Alt 1a	% Flow Diverted	82%	62%	57%	55%	31%	25%	54%	81%	39%	44%	67%	77%	53%
Alt 1c	% Flow Diverted	82%	62%	57%	55%	31%	25%	54%	81%	38%	44%	67%	78%	52%
Alt 8a	% Flow Diverted	82%	62%	57%	55%	31%	25%	54%	81%	39%	44%	67%	77%	53%
Alt 10a	% Flow Diverted	82%	62%	57%	55%	31%	25%	54%	81%	39%	44%	67%	77%	53%
Alt 13a	% Flow Diverted	82%	62%	57%	55%	31%	25%	54%	81%	39%	45%	67%	77%	53%

Note: This data reflects Denver Water's diversions of native Vasquez Creek flows and does not include deliveries from the Williams Fork River basin.

Table H-12.8. Elk Creek and Tributaries at Denver Water's Diversions

Values in cfs		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Native Flows		0.9	0.8	0.7	0.7	0.6	0.7	1.1	5.2	13.7	6.8	2.8	1.2	2.9
Diversions														
Current	Diversion	0.9	0.7	0.7	0.6	0.6	0.6	1.1	4.4	6.2	2.8	1.3	0.7	1.7
Full Use	Diversion	0.9	0.6	0.5	0.6	0.6	0.6	1.1	4.4	6.5	3.0	1.4	0.7	1.8
No Act	Diversion	0.9	0.6	0.5	0.6	0.6	0.6	1.1	4.6	7.0	3.1	1.4	0.7	1.8
Alt 1a	Diversion	0.9	0.6	0.5	0.7	0.6	0.7	1.1	5.1	9.0	3.5	1.5	0.7	2.1
Alt 1c	Diversion	0.9	0.6	0.5	0.7	0.6	0.7	1.1	5.1	9.1	3.6	1.5	0.7	2.1
Alt 8a	Diversion	0.9	0.6	0.5	0.7	0.6	0.7	1.1	5.1	8.9	3.4	1.4	0.7	2.1
Alt 10a	Diversion	0.9	0.6	0.5	0.7	0.6	0.7	1.1	5.1	9.0	3.4	1.4	0.7	2.1
Alt 13a	Diversion	0.9	0.6	0.5	0.7	0.6	0.7	1.1	5.1	9.0	3.5	1.5	0.7	2.1
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	94%	94%	95%	93%	92%	96%	100%	85%	45%	41%	47%	60%	59%
Full Use	% Flow Diverted	94%	82%	77%	95%	92%	96%	100%	86%	48%	44%	49%	60%	60%
No Act	% Flow Diverted	95%	83%	77%	93%	92%	96%	100%	89%	51%	46%	50%	61%	62%
Alt 1a	% Flow Diverted	95%	85%	79%	99%	98%	99%	100%	98%	66%	52%	52%	61%	71%
Alt 1c	% Flow Diverted	95%	85%	79%	99%	98%	99%	100%	98%	66%	53%	52%	61%	71%
Alt 8a	% Flow Diverted	95%	85%	79%	99%	98%	99%	100%	98%	65%	51%	50%	61%	70%
Alt 10a	% Flow Diverted	95%	85%	79%	99%	98%	99%	100%	98%	65%	51%	50%	61%	70%
Alt 13a	% Flow Diverted	95%	85%	79%	99%	98%	99%	100%	98%	66%	52%	51%	61%	71%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Native Flows		0.9	0.7	0.6	0.6	0.6	0.6	1.4	4.7	6.8	3.7	1.8	0.9	1.9
Diversions														
Current	Diversion	0.8	0.7	0.6	0.6	0.6	0.6	1.4	4.6	4.9	1.8	0.8	0.4	1.5
Full Use	Diversion	0.8	0.5	0.3	0.6	0.6	0.6	1.4	4.6	4.9	1.8	0.8	0.4	1.4
No Act	Diversion	0.8	0.5	0.3	0.6	0.6	0.6	1.4	4.6	4.9	1.8	0.8	0.4	1.4
Alt 1a	Diversion	0.8	0.5	0.3	0.6	0.6	0.6	1.4	4.6	4.9	1.8	0.8	0.4	1.4
Alt 1c	Diversion	0.8	0.5	0.3	0.6	0.6	0.6	1.4	4.6	4.9	1.8	0.8	0.4	1.4
Alt 8a	Diversion	0.8	0.5	0.3	0.6	0.6	0.6	1.4	4.6	4.9	1.8	0.8	0.4	1.4
Alt 10a	Diversion	0.8	0.5	0.3	0.6	0.6	0.6	1.4	4.6	4.9	1.8	0.8	0.4	1.4
Alt 13a	Diversion	0.8	0.5	0.3	0.6	0.6	0.6	1.4	4.6	4.9	1.8	0.8	0.4	1.4
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	91%	99%	90%	100%	100%	100%	100%	97%	72%	48%	44%	46%	76%
Full Use	% Flow Diverted	91%	74%	53%	100%	100%	100%	100%	97%	72%	48%	44%	46%	74%
No Act	% Flow Diverted	91%	74%	53%	100%	100%	100%	100%	97%	72%	48%	44%	46%	74%
Alt 1a	% Flow Diverted	91%	74%	53%	100%	100%	100%	100%	97%	72%	48%	44%	46%	74%
Alt 1c	% Flow Diverted	91%	74%	53%	100%	100%	100%	100%	97%	72%	48%	44%	46%	74%
Alt 8a	% Flow Diverted	91%	74%	53%	100%	100%	100%	100%	97%	72%	48%	44%	46%	74%
Alt 10a	% Flow Diverted	91%	74%	53%	100%	100%	100%	100%	97%	72%	48%	44%	46%	74%
Alt 13a	% Flow Diverted	91%	74%	53%	100%	100%	100%	100%	97%	72%	48%	44%	46%	74%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Native Flows		1.3	1.0	0.9	0.7	0.8	0.8	1.4	7.0	19.2	10.8	4.7	1.8	4.2
Diversions														
Current	Diversion	1.3	1.0	0.9	0.7	0.8	0.8	1.4	4.6	2.4	3.5	1.6	1.3	1.7
Full Use	Diversion	1.3	0.8	0.7	0.7	0.8	0.8	1.4	5.0	3.8	3.7	2.0	1.4	1.9
No Act	Diversion	1.3	0.8	0.7	0.7	0.8	0.8	1.4	5.2	4.1	3.9	2.2	1.4	1.9
Alt 1a	Diversion	1.3	0.8	0.7	0.7	0.8	0.8	1.4	6.5	6.5	3.7	2.1	1.4	2.2
Alt 1c	Diversion	1.3	0.8	0.7	0.7	0.8	0.8	1.4	6.5	6.5	3.6	2.2	1.4	2.2
Alt 8a	Diversion	1.3	0.8	0.7	0.7	0.8	0.8	1.4	6.5	6.2	3.7	2.1	1.4	2.2
Alt 10a	Diversion	1.3	0.8	0.7	0.7	0.8	0.8	1.4	6.5	6.3	3.7	2.1	1.4	2.2
Alt 13a	Diversion	1.3	0.8	0.7	0.7	0.8	0.8	1.4	6.5	6.2	3.8	2.1	1.4	2.2
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	100%	99%	100%	100%	100%	98%	100%	66%	13%	32%	34%	74%	40%
Full Use	% Flow Diverted	100%	82%	83%	100%	100%	99%	100%	72%	20%	35%	42%	77%	45%
No Act	% Flow Diverted	100%	82%	83%	100%	100%	99%	100%	74%	21%	36%	46%	78%	46%
Alt 1a	% Flow Diverted	100%	82%	83%	100%	100%	99%	100%	93%	34%	35%	45%	79%	53%
Alt 1c	% Flow Diverted	100%	82%	83%	100%	100%	99%	100%	93%	34%	34%	46%	80%	53%
Alt 8a	% Flow Diverted	100%	82%	83%	100%	100%	99%	100%	93%	32%	35%	45%	79%	53%
Alt 10a	% Flow Diverted	100%	82%	83%	100%	100%	99%	100%	93%	33%	35%	45%	79%	53%
Alt 13a	% Flow Diverted	100%	82%	83%	100%	100%	99%	100%	93%	32%	35%	45%	79%	53%

Note: Native flows and diversions were combined for tributaries to Elk Creek that Denver Water diverts from.

Table H-12.9. Little Vasquez Creek at Denver Water's Diversion

Values in cfs		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Native Flows		2.3	1.5	1.3	1.9	2.1	2.2	2.7	13.7	24.5	10.4	5.1	3.2	5.9
Diversions														
Current	Diversion	2.2	0.5	0.5	1.7	2.0	2.2	2.7	12.6	17.6	8.5	5.0	3.2	4.9
Full Use	Diversion	1.8	0.0	0.0	1.6	2.0	2.2	2.7	12.9	18.3	9.0	5.1	3.2	4.9
No Act	Diversion	1.8	0.0	0.0	1.5	2.0	2.2	2.7	13.2	19.1	9.0	5.1	3.2	5.0
Alt 1a	Diversion	1.8	0.0	0.0	1.6	2.1	2.2	2.7	13.7	22.1	9.5	5.1	3.2	5.3
Alt 1c	Diversion	1.8	0.0	0.0	1.6	2.1	2.2	2.7	13.7	22.1	9.6	5.1	3.2	5.3
Alt 8a	Diversion	1.8	0.0	0.0	1.6	2.1	2.2	2.7	13.7	21.8	9.3	5.1	3.2	5.3
Alt 10a	Diversion	1.8	0.0	0.0	1.6	2.1	2.2	2.7	13.7	21.8	9.3	5.1	3.2	5.3
Alt 13a	Diversion	1.8	0.0	0.0	1.6	2.1	2.2	2.7	13.7	22.0	9.5	5.1	3.2	5.3
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	94%	30%	38%	92%	97%	98%	100%	92%	72%	82%	97%	100%	83%
Full Use	% Flow Diverted	79%	1%	1%	84%	96%	98%	100%	94%	74%	87%	100%	100%	83%
No Act	% Flow Diverted	79%	1%	1%	82%	96%	98%	100%	96%	78%	87%	100%	100%	84%
Alt 1a	% Flow Diverted	79%	1%	1%	87%	99%	100%	100%	100%	90%	92%	100%	100%	90%
Alt 1c	% Flow Diverted	79%	1%	1%	87%	99%	100%	100%	100%	90%	92%	100%	100%	90%
Alt 8a	% Flow Diverted	79%	1%	1%	87%	99%	100%	100%	100%	89%	90%	100%	100%	90%
Alt 10a	% Flow Diverted	79%	1%	1%	87%	99%	100%	100%	100%	89%	90%	100%	100%	90%
Alt 13a	% Flow Diverted	79%	1%	1%	87%	99%	100%	100%	100%	90%	91%	100%	100%	90%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Native Flows		1.8	1.3	0.9	1.0	1.2	1.4	2.6	10.2	17.3	4.8	3.1	2.4	4.0
Diversions														
Current	Diversion	1.6	0.3	0.2	1.0	1.2	1.4	2.6	10.2	16.7	4.8	3.1	2.4	3.8
Full Use	Diversion	1.2	0.0	0.0	0.7	1.1	1.4	2.6	10.2	16.7	4.8	3.1	2.4	3.7
No Act	Diversion	1.2	0.0	0.0	0.7	1.1	1.4	2.6	10.2	16.7	4.8	3.1	2.4	3.7
Alt 1a	Diversion	1.2	0.0	0.0	0.7	1.1	1.4	2.6	10.2	16.7	4.8	3.1	2.4	3.7
Alt 1c	Diversion	1.2	0.0	0.0	0.7	1.1	1.4	2.6	10.2	16.7	4.8	3.1	2.4	3.7
Alt 8a	Diversion	1.2	0.0	0.0	0.7	1.1	1.4	2.6	10.2	16.7	4.8	3.1	2.4	3.7
Alt 10a	Diversion	1.2	0.0	0.0	0.7	1.1	1.4	2.6	10.2	16.7	4.8	3.1	2.4	3.7
Alt 13a	Diversion	1.2	0.0	0.0	0.7	1.1	1.4	2.6	10.2	16.7	4.8	3.1	2.4	3.7
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	91%	25%	20%	95%	100%	100%	100%	100%	97%	100%	100%	100%	95%
Full Use	% Flow Diverted	68%	0%	0%	71%	98%	100%	100%	100%	97%	100%	100%	100%	92%
No Act	% Flow Diverted	68%	0%	0%	71%	98%	100%	100%	100%	97%	100%	100%	100%	92%
Alt 1a	% Flow Diverted	68%	0%	0%	71%	98%	100%	100%	100%	97%	100%	100%	100%	92%
Alt 1c	% Flow Diverted	68%	0%	0%	71%	98%	100%	100%	100%	97%	100%	100%	100%	92%
Alt 8a	% Flow Diverted	68%	0%	0%	71%	98%	100%	100%	100%	97%	100%	100%	100%	92%
Alt 10a	% Flow Diverted	68%	0%	0%	71%	98%	100%	100%	100%	97%	100%	100%	100%	92%
Alt 13a	% Flow Diverted	68%	0%	0%	71%	98%	100%	100%	100%	97%	100%	100%	100%	92%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Native Flows		3.4	1.8	1.4	2.8	4.0	4.1	2.6	11.7	18.9	11.9	6.9	3.8	6.1
Diversions														
Current	Diversion	3.4	0.7	0.6	2.7	4.0	4.0	2.6	10.1	7.6	8.3	6.5	3.7	4.5
Full Use	Diversion	3.0	0.0	0.0	2.6	4.0	4.0	2.6	11.6	9.1	9.2	6.9	3.8	4.7
No Act	Diversion	3.0	0.0	0.0	2.6	4.0	4.0	2.6	11.5	10.2	9.5	6.9	3.8	4.9
Alt 1a	Diversion	3.0	0.0	0.0	2.6	4.0	4.0	2.6	11.6	14.0	9.2	6.9	3.8	5.1
Alt 1c	Diversion	3.0	0.0	0.0	2.6	4.0	4.0	2.6	11.6	14.1	9.4	6.7	3.8	5.2
Alt 8a	Diversion	3.0	0.0	0.0	2.6	4.0	4.0	2.6	11.6	14.1	9.3	6.9	3.8	5.2
Alt 10a	Diversion	3.0	0.0	0.0	2.6	4.0	4.0	2.6	11.6	14.1	9.2	6.9	3.8	5.2
Alt 13a	Diversion	3.0	0.0	0.0	2.6	4.0	4.0	2.6	11.6	14.0	9.4	6.9	3.8	5.2
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	98%	39%	42%	99%	100%	99%	100%	86%	40%	70%	93%	100%	74%
Full Use	% Flow Diverted	89%	2%	0%	93%	100%	100%	100%	99%	48%	77%	100%	100%	78%
No Act	% Flow Diverted	89%	2%	0%	93%	100%	100%	100%	99%	54%	80%	100%	100%	80%
Alt 1a	% Flow Diverted	89%	2%	0%	93%	100%	100%	100%	99%	74%	77%	99%	100%	84%
Alt 1c	% Flow Diverted	89%	2%	0%	93%	100%	100%	100%	99%	74%	79%	97%	100%	85%
Alt 8a	% Flow Diverted	89%	2%	0%	93%	100%	100%	100%	99%	75%	79%	99%	100%	85%
Alt 10a	% Flow Diverted	89%	2%	0%	93%	100%	100%	100%	99%	74%	77%	99%	100%	84%
Alt 13a	% Flow Diverted	89%	2%	0%	93%	100%	100%	100%	99%	74%	79%	99%	100%	85%

Table H-12.10. Cooper Creek at Denver Water's Diversion

Values in cfs		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Native Flows		0.3	0.3	0.3	0.3	0.3	0.3	0.3	1.7	3.1	1.3	0.6	0.4	0.8
Diversions														
Current	Diversion	0.0	0.0	0.0	0.0	0.0	0.1	0.3	1.6	2.6	1.2	0.5	0.2	0.6
Full Use	Diversion	0.0	0.0	0.0	0.0	0.0	0.1	0.3	1.6	2.7	1.2	0.5	0.2	0.6
No Act	Diversion	0.0	0.0	0.0	0.0	0.0	0.1	0.3	1.7	2.7	1.2	0.5	0.2	0.6
Alt 1a	Diversion	0.0	0.0	0.0	0.0	0.0	0.1	0.3	1.7	2.9	1.2	0.5	0.2	0.6
Alt 1c	Diversion	0.0	0.0	0.0	0.0	0.0	0.1	0.3	1.7	2.9	1.2	0.5	0.2	0.6
Alt 8a	Diversion	0.0	0.0	0.0	0.0	0.0	0.1	0.3	1.7	2.9	1.2	0.5	0.2	0.6
Alt 10a	Diversion	0.0	0.0	0.0	0.0	0.0	0.1	0.3	1.7	2.9	1.2	0.5	0.2	0.6
Alt 13a	Diversion	0.0	0.0	0.0	0.0	0.0	0.1	0.3	1.7	2.9	1.2	0.5	0.2	0.6
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	8%	0%	0%	3%	7%	40%	80%	94%	84%	96%	84%	60%	73%
Full Use	% Flow Diverted	1%	0%	0%	0%	3%	38%	81%	95%	87%	97%	83%	59%	73%
No Act	% Flow Diverted	1%	0%	0%	0%	3%	38%	80%	97%	89%	97%	83%	59%	74%
Alt 1a	% Flow Diverted	1%	0%	0%	0%	4%	39%	81%	100%	96%	97%	83%	59%	77%
Alt 1c	% Flow Diverted	1%	0%	0%	0%	4%	39%	81%	100%	96%	97%	83%	59%	77%
Alt 8a	% Flow Diverted	1%	0%	0%	0%	4%	39%	81%	100%	95%	97%	83%	59%	77%
Alt 10a	% Flow Diverted	1%	0%	0%	0%	4%	39%	81%	100%	95%	97%	83%	59%	77%
Alt 13a	% Flow Diverted	1%	0%	0%	0%	4%	39%	81%	100%	95%	97%	83%	59%	77%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Native Flows		0.2	0.3	0.2	0.2	0.2	0.2	0.3	1.3	2.1	0.6	0.4	0.3	0.5
Diversions														
Current	Diversion	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.3	2.1	0.5	0.2	0.1	0.4
Full Use	Diversion	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.3	2.1	0.5	0.2	0.1	0.4
No Act	Diversion	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.3	2.1	0.5	0.2	0.1	0.4
Alt 1a	Diversion	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.3	2.1	0.5	0.2	0.1	0.4
Alt 1c	Diversion	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.3	2.1	0.5	0.2	0.1	0.4
Alt 8a	Diversion	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.3	2.1	0.5	0.2	0.1	0.4
Alt 10a	Diversion	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.3	2.1	0.5	0.2	0.1	0.4
Alt 13a	Diversion	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.3	2.1	0.5	0.2	0.1	0.4
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	2%	0%	0%	0%	0%	6%	85%	100%	100%	82%	47%	36%	71%
Full Use	% Flow Diverted	1%	0%	0%	0%	0%	6%	85%	100%	100%	81%	46%	36%	70%
No Act	% Flow Diverted	1%	0%	0%	0%	0%	6%	85%	100%	100%	81%	46%	36%	70%
Alt 1a	% Flow Diverted	1%	0%	0%	0%	0%	6%	85%	100%	100%	81%	46%	36%	70%
Alt 1c	% Flow Diverted	1%	0%	0%	0%	0%	6%	85%	100%	100%	81%	46%	36%	70%
Alt 8a	% Flow Diverted	1%	0%	0%	0%	0%	6%	85%	100%	100%	81%	46%	36%	70%
Alt 10a	% Flow Diverted	1%	0%	0%	0%	0%	6%	85%	100%	100%	81%	46%	36%	70%
Alt 13a	% Flow Diverted	1%	0%	0%	0%	0%	6%	85%	100%	100%	81%	46%	36%	70%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Native Flows		0.4	0.3	0.3	0.4	0.5	0.5	0.3	1.5	2.5	1.5	0.9	0.5	0.8
Diversions														
Current	Diversion	0.1	0.0	0.0	0.1	0.1	0.5	0.3	1.4	1.3	1.4	0.9	0.4	0.5
Full Use	Diversion	0.0	0.0	0.0	0.0	0.1	0.5	0.3	1.5	1.6	1.5	0.9	0.4	0.6
No Act	Diversion	0.0	0.0	0.0	0.0	0.1	0.5	0.3	1.5	1.8	1.5	0.9	0.4	0.6
Alt 1a	Diversion	0.0	0.0	0.0	0.0	0.1	0.5	0.3	1.5	2.1	1.4	0.9	0.4	0.6
Alt 1c	Diversion	0.0	0.0	0.0	0.0	0.1	0.5	0.3	1.5	2.1	1.5	0.9	0.4	0.6
Alt 8a	Diversion	0.0	0.0	0.0	0.0	0.1	0.5	0.3	1.5	2.1	1.4	0.9	0.4	0.6
Alt 10a	Diversion	0.0	0.0	0.0	0.0	0.1	0.5	0.3	1.5	2.1	1.4	0.9	0.4	0.6
Alt 13a	Diversion	0.0	0.0	0.0	0.0	0.1	0.5	0.3	1.5	2.1	1.4	0.9	0.4	0.6
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	28%	0%	0%	15%	28%	93%	86%	97%	54%	96%	99%	92%	69%
Full Use	% Flow Diverted	4%	0%	0%	0%	15%	93%	86%	97%	66%	99%	99%	92%	71%
No Act	% Flow Diverted	4%	0%	0%	0%	15%	93%	86%	98%	73%	99%	99%	92%	72%
Alt 1a	% Flow Diverted	4%	0%	0%	0%	15%	93%	86%	99%	86%	97%	99%	92%	76%
Alt 1c	% Flow Diverted	4%	0%	0%	0%	15%	93%	86%	99%	86%	99%	97%	92%	76%
Alt 8a	% Flow Diverted	4%	0%	0%	0%	15%	93%	86%	99%	86%	97%	99%	92%	76%
Alt 10a	% Flow Diverted	4%	0%	0%	0%	15%	93%	86%	99%	86%	97%	99%	92%	76%
Alt 13a	% Flow Diverted	4%	0%	0%	0%	15%	93%	86%	99%	86%	97%	99%	92%	76%

Table H-12.11. Englewood Ranch Gravity System at Denver Water's Diversions

Values in cfs		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Native Flows		4.9	4.1	3.4	2.3	2.4	2.8	3.5	32.1	68.7	20.4	7.4	4.6	13.0
Diversions														
Current	Diversion	0.2	0.0	0.0	0.0	0.0	0.0	0.1	15.8	8.0	3.8	1.4	0.4	2.5
Full Use	Diversion	0.3	0.0	0.0	0.0	0.0	0.0	0.1	16.2	7.9	4.4	1.5	0.4	2.6
No Act	Diversion	0.3	0.0	0.0	0.0	0.0	0.0	0.1	16.4	8.5	4.9	1.6	0.4	2.7
Alt 1a	Diversion	0.3	0.0	0.0	0.0	0.0	0.0	0.1	17.2	9.3	5.6	1.8	0.4	2.9
Alt 1c	Diversion	0.3	0.0	0.0	0.0	0.0	0.0	0.1	17.2	9.2	5.7	1.8	0.4	2.9
Alt 8a	Diversion	0.3	0.0	0.0	0.0	0.0	0.0	0.1	17.2	9.3	5.3	1.5	0.4	2.9
Alt 10a	Diversion	0.3	0.0	0.0	0.0	0.0	0.0	0.1	17.2	9.3	5.3	1.5	0.4	2.9
Alt 13a	Diversion	0.3	0.0	0.0	0.0	0.0	0.0	0.1	17.2	9.3	5.5	1.7	0.4	2.9
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	5%	1%	0%	0%	0%	0%	4%	49%	12%	19%	20%	8%	19%
Full Use	% Flow Diverted	6%	1%	0%	0%	0%	0%	4%	50%	12%	21%	20%	9%	20%
No Act	% Flow Diverted	6%	1%	0%	0%	0%	0%	4%	51%	12%	24%	21%	9%	21%
Alt 1a	% Flow Diverted	6%	1%	0%	0%	0%	0%	4%	54%	14%	28%	25%	9%	22%
Alt 1c	% Flow Diverted	6%	1%	0%	0%	0%	0%	4%	54%	13%	28%	25%	9%	22%
Alt 8a	% Flow Diverted	6%	1%	0%	0%	0%	0%	4%	54%	14%	26%	21%	9%	22%
Alt 10a	% Flow Diverted	6%	1%	0%	0%	0%	0%	4%	54%	14%	26%	21%	9%	22%
Alt 13a	% Flow Diverted	6%	1%	0%	0%	0%	0%	4%	54%	14%	27%	23%	9%	22%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Native Flows		4.7	4.1	3.0	2.2	2.3	2.9	3.4	24.3	32.8	6.9	5.7	4.3	8.0
Diversions														
Current	Diversion	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.5	16.5	2.1	0.7	0.2	3.2
Full Use	Diversion	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.5	16.5	2.1	0.7	0.1	3.2
No Act	Diversion	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.5	16.5	2.1	0.7	0.1	3.2
Alt 1a	Diversion	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.5	16.5	2.1	0.7	0.1	3.2
Alt 1c	Diversion	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.5	16.5	2.1	0.7	0.1	3.2
Alt 8a	Diversion	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.5	16.5	2.1	0.7	0.1	3.2
Alt 10a	Diversion	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.5	16.5	2.1	0.7	0.1	3.2
Alt 13a	Diversion	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.5	16.5	2.1	0.7	0.1	3.2
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	0%	0%	0%	0%	0%	0%	0%	76%	50%	31%	13%	4%	39%
Full Use	% Flow Diverted	0%	0%	0%	0%	0%	0%	0%	76%	50%	31%	13%	3%	39%
No Act	% Flow Diverted	0%	0%	0%	0%	0%	0%	0%	76%	50%	31%	13%	3%	39%
Alt 1a	% Flow Diverted	0%	0%	0%	0%	0%	0%	0%	76%	50%	31%	13%	3%	39%
Alt 1c	% Flow Diverted	0%	0%	0%	0%	0%	0%	0%	76%	50%	31%	13%	3%	39%
Alt 8a	% Flow Diverted	0%	0%	0%	0%	0%	0%	0%	76%	50%	31%	13%	3%	39%
Alt 10a	% Flow Diverted	0%	0%	0%	0%	0%	0%	0%	76%	50%	31%	13%	3%	39%
Alt 13a	% Flow Diverted	0%	0%	0%	0%	0%	0%	0%	76%	50%	31%	13%	3%	39%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Native Flows		6.5	4.5	4.3	2.8	2.9	2.8	4.5	38.8	101.7	39.0	11.7	6.7	18.9
Diversions														
Current	Diversion	1.3	0.2	0.0	0.0	0.0	0.0	1.0	12.7	0.1	2.6	2.4	1.3	1.8
Full Use	Diversion	1.3	0.2	0.0	0.0	0.0	0.0	1.0	15.3	0.1	3.3	2.7	1.6	2.1
No Act	Diversion	1.3	0.2	0.0	0.0	0.0	0.0	1.0	15.6	0.1	3.8	3.2	1.7	2.2
Alt 1a	Diversion	1.3	0.2	0.0	0.0	0.0	0.0	1.0	18.1	2.2	3.5	2.9	1.7	2.6
Alt 1c	Diversion	1.3	0.2	0.0	0.0	0.0	0.0	1.0	18.1	2.2	3.5	2.7	1.7	2.6
Alt 8a	Diversion	1.3	0.2	0.0	0.0	0.0	0.0	1.0	18.1	2.2	3.6	2.9	1.7	2.6
Alt 10a	Diversion	1.3	0.2	0.0	0.0	0.0	0.0	1.0	18.1	2.2	3.6	2.9	1.7	2.6
Alt 13a	Diversion	1.3	0.2	0.0	0.0	0.0	0.0	1.0	18.1	2.2	3.6	2.9	1.7	2.6
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	21%	4%	0%	0%	0%	0%	22%	33%	0%	7%	20%	20%	10%
Full Use	% Flow Diverted	20%	4%	0%	0%	0%	0%	22%	39%	0%	8%	23%	23%	11%
No Act	% Flow Diverted	20%	4%	0%	0%	0%	0%	22%	40%	0%	10%	27%	25%	12%
Alt 1a	% Flow Diverted	21%	4%	0%	0%	0%	0%	22%	47%	2%	9%	25%	25%	14%
Alt 1c	% Flow Diverted	21%	4%	0%	0%	0%	0%	22%	47%	2%	9%	23%	25%	14%
Alt 8a	% Flow Diverted	21%	4%	0%	0%	0%	0%	22%	47%	2%	9%	25%	25%	14%
Alt 10a	% Flow Diverted	21%	4%	0%	0%	0%	0%	22%	47%	2%	9%	25%	25%	14%
Alt 13a	% Flow Diverted	21%	4%	0%	0%	0%	0%	22%	47%	2%	9%	25%	25%	14%

Note: Native flows and diversions were combined for the Englewood Ranch Gravity System.

Table H-12.12. North Fork Ranch Creek and Dribble Creek at Denver Water's Diversions

Values in cfs		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Native Flows		1.3	1.2	1.0	0.8	0.7	0.6	1.3	9.5	23.4	8.8	2.6	1.5	4.4
Diversions														
Current	Diversion	1.1	1.1	0.9	0.7	0.6	0.6	1.2	7.4	7.9	3.1	2.0	1.3	2.3
Full Use	Diversion	1.2	1.2	0.9	0.7	0.6	0.6	1.2	7.5	8.0	3.6	2.1	1.4	2.4
No Act	Diversion	1.2	1.2	0.9	0.7	0.6	0.6	1.2	7.8	8.5	3.8	2.1	1.4	2.5
Alt 1a	Diversion	1.2	1.2	0.9	0.8	0.7	0.6	1.2	8.3	11.5	4.6	2.3	1.4	2.9
Alt 1c	Diversion	1.2	1.2	0.9	0.8	0.7	0.6	1.2	8.3	11.4	4.6	2.3	1.4	2.9
Alt 8a	Diversion	1.2	1.2	0.9	0.8	0.7	0.6	1.2	8.3	11.3	4.3	2.1	1.4	2.8
Alt 10a	Diversion	1.2	1.2	0.9	0.8	0.7	0.6	1.2	8.3	11.3	4.3	2.1	1.4	2.8
Alt 13a	Diversion	1.2	1.2	0.9	0.8	0.7	0.6	1.2	8.3	11.4	4.4	2.2	1.4	2.9
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	89%	94%	91%	90%	92%	95%	95%	78%	34%	35%	77%	89%	53%
Full Use	% Flow Diverted	91%	96%	95%	92%	92%	95%	95%	79%	34%	41%	79%	90%	55%
No Act	% Flow Diverted	91%	96%	95%	90%	92%	95%	95%	82%	36%	43%	81%	91%	57%
Alt 1a	% Flow Diverted	92%	98%	97%	97%	98%	97%	95%	88%	49%	52%	86%	91%	66%
Alt 1c	% Flow Diverted	92%	98%	97%	97%	98%	97%	95%	88%	49%	52%	87%	91%	66%
Alt 8a	% Flow Diverted	92%	98%	97%	97%	98%	97%	95%	88%	48%	49%	80%	91%	64%
Alt 10a	% Flow Diverted	92%	98%	97%	97%	98%	97%	95%	88%	48%	49%	80%	91%	64%
Alt 13a	% Flow Diverted	92%	98%	97%	97%	98%	97%	95%	88%	49%	51%	84%	91%	65%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Native Flows		1.0	1.0	0.8	0.7	0.5	0.5	1.1	5.9	10.9	3.2	1.8	1.4	2.4
Diversions														
Current	Diversion	0.9	0.9	0.8	0.7	0.5	0.5	1.1	5.9	10.0	2.7	1.7	1.4	2.3
Full Use	Diversion	0.9	0.9	0.8	0.7	0.5	0.5	1.1	5.9	9.8	2.6	1.7	1.4	2.2
No Act	Diversion	0.9	0.9	0.8	0.7	0.5	0.5	1.1	5.9	9.8	2.6	1.7	1.4	2.2
Alt 1a	Diversion	0.9	0.9	0.8	0.7	0.5	0.5	1.1	5.9	9.8	2.6	1.7	1.4	2.2
Alt 1c	Diversion	0.9	0.9	0.8	0.7	0.5	0.5	1.1	5.9	9.8	2.6	1.7	1.4	2.2
Alt 8a	Diversion	0.9	0.9	0.8	0.7	0.5	0.5	1.1	5.9	9.8	2.6	1.7	1.4	2.2
Alt 10a	Diversion	0.9	0.9	0.8	0.7	0.5	0.5	1.1	5.9	9.8	2.6	1.7	1.4	2.2
Alt 13a	Diversion	0.9	0.9	0.8	0.7	0.5	0.5	1.1	5.9	9.8	2.6	1.7	1.4	2.2
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	93%	96%	100%	100%	100%	100%	100%	100%	91%	85%	96%	100%	94%
Full Use	% Flow Diverted	93%	96%	100%	100%	100%	100%	100%	100%	89%	82%	96%	100%	93%
No Act	% Flow Diverted	93%	96%	100%	100%	100%	100%	100%	100%	89%	82%	96%	100%	93%
Alt 1a	% Flow Diverted	93%	96%	100%	100%	100%	100%	100%	100%	89%	82%	96%	100%	93%
Alt 1c	% Flow Diverted	93%	96%	100%	100%	100%	100%	100%	100%	89%	82%	96%	100%	93%
Alt 8a	% Flow Diverted	93%	96%	100%	100%	100%	100%	100%	100%	89%	82%	96%	100%	93%
Alt 10a	% Flow Diverted	93%	96%	100%	100%	100%	100%	100%	100%	89%	82%	96%	100%	93%
Alt 13a	% Flow Diverted	93%	96%	100%	100%	100%	100%	100%	100%	89%	82%	96%	100%	93%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Native Flows		1.9	1.7	1.2	0.9	0.8	0.7	1.7	12.0	34.3	15.7	3.9	1.8	6.4
Diversions														
Current	Diversion	1.9	1.7	1.1	0.9	0.8	0.7	1.7	5.8	2.0	2.4	1.9	1.4	1.9
Full Use	Diversion	1.9	1.7	1.1	0.9	0.8	0.7	1.7	7.6	2.1	2.6	2.0	1.5	2.1
No Act	Diversion	1.9	1.7	1.1	0.9	0.8	0.7	1.7	7.7	2.3	3.1	2.4	1.6	2.2
Alt 1a	Diversion	1.9	1.7	1.1	0.9	0.8	0.7	1.7	8.9	5.7	3.0	2.2	1.6	2.5
Alt 1c	Diversion	1.9	1.7	1.1	0.9	0.8	0.7	1.7	8.9	5.7	3.1	2.2	1.5	2.5
Alt 8a	Diversion	1.9	1.7	1.1	0.9	0.8	0.7	1.7	8.9	5.7	3.0	2.2	1.6	2.5
Alt 10a	Diversion	1.9	1.7	1.1	0.9	0.8	0.7	1.7	8.9	5.7	3.0	2.2	1.6	2.5
Alt 13a	Diversion	1.9	1.7	1.1	0.9	0.8	0.7	1.7	8.9	5.7	2.9	2.2	1.6	2.5
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	99%	99%	98%	99%	100%	99%	100%	48%	6%	15%	49%	79%	29%
Full Use	% Flow Diverted	99%	99%	98%	99%	100%	99%	100%	63%	6%	17%	51%	85%	32%
No Act	% Flow Diverted	99%	99%	98%	99%	100%	99%	100%	64%	7%	20%	60%	87%	34%
Alt 1a	% Flow Diverted	99%	99%	98%	99%	100%	99%	100%	74%	17%	19%	55%	87%	39%
Alt 1c	% Flow Diverted	99%	99%	98%	99%	100%	99%	100%	74%	17%	20%	55%	87%	39%
Alt 8a	% Flow Diverted	99%	99%	98%	99%	100%	99%	100%	74%	17%	19%	55%	87%	39%
Alt 10a	% Flow Diverted	99%	99%	98%	99%	100%	99%	100%	74%	17%	19%	55%	87%	39%
Alt 13a	% Flow Diverted	99%	99%	98%	99%	100%	99%	100%	74%	17%	18%	55%	87%	39%

Note: Native flows and diversions were combined for North Fork Ranch Creek and Dribble Creek.

Table H-12.13. Main Ranch Creek at Denver Water's Diversion

Values in cfs		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Native Flows		1.6	1.5	1.2	1.0	0.9	0.8	1.6	12.1	29.7	11.2	3.3	1.9	5.6
Diversions														
Current	Diversion	0.2	0.1	0.0	0.0	0.0	0.0	0.3	7.2	9.4	2.2	0.3	0.2	1.7
Full Use	Diversion	0.2	0.1	0.0	0.0	0.0	0.0	0.3	7.3	9.5	2.8	0.3	0.2	1.7
No Act	Diversion	0.2	0.1	0.0	0.0	0.0	0.0	0.3	7.6	10.2	3.0	0.3	0.2	1.8
Alt 1a	Diversion	0.2	0.1	0.0	0.0	0.0	0.0	0.3	8.3	13.8	3.9	0.4	0.2	2.3
Alt 1c	Diversion	0.2	0.1	0.0	0.0	0.0	0.0	0.3	8.3	13.7	3.9	0.4	0.2	2.3
Alt 8a	Diversion	0.2	0.1	0.0	0.0	0.0	0.0	0.3	8.3	13.5	3.5	0.3	0.2	2.2
Alt 10a	Diversion	0.2	0.1	0.0	0.0	0.0	0.0	0.3	8.3	13.6	3.5	0.3	0.2	2.2
Alt 13a	Diversion	0.2	0.1	0.0	0.0	0.0	0.0	0.3	8.3	13.7	3.7	0.4	0.2	2.2
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	12%	5%	0%	0%	0%	0%	19%	60%	32%	20%	8%	8%	30%
Full Use	% Flow Diverted	13%	6%	1%	0%	0%	0%	19%	60%	32%	25%	9%	9%	31%
No Act	% Flow Diverted	13%	6%	1%	0%	0%	0%	19%	63%	34%	27%	10%	9%	33%
Alt 1a	% Flow Diverted	13%	6%	1%	0%	0%	0%	19%	69%	47%	35%	13%	9%	41%
Alt 1c	% Flow Diverted	13%	6%	1%	0%	0%	0%	19%	69%	46%	35%	13%	9%	41%
Alt 8a	% Flow Diverted	13%	6%	1%	0%	0%	0%	19%	69%	46%	31%	9%	9%	40%
Alt 10a	% Flow Diverted	13%	6%	1%	0%	0%	0%	19%	69%	46%	31%	9%	9%	40%
Alt 13a	% Flow Diverted	13%	6%	1%	0%	0%	0%	19%	69%	46%	33%	12%	9%	40%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Native Flows		1.2	1.2	1.0	0.9	0.7	0.6	1.4	7.5	13.9	4.1	2.3	1.8	3.1
Diversions														
Current	Diversion	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.7	9.7	1.1	0.1	0.2	1.3
Full Use	Diversion	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.7	10.3	1.4	0.3	0.4	1.4
No Act	Diversion	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.7	10.3	1.4	0.3	0.4	1.4
Alt 1a	Diversion	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.7	10.3	1.4	0.3	0.4	1.4
Alt 1c	Diversion	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.7	10.3	1.4	0.3	0.4	1.4
Alt 8a	Diversion	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.7	10.3	1.4	0.3	0.4	1.4
Alt 10a	Diversion	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.7	10.3	1.4	0.3	0.4	1.4
Alt 13a	Diversion	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.7	10.3	1.4	0.3	0.4	1.4
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	0%	0%	0%	0%	0%	0%	6%	62%	70%	28%	3%	14%	44%
Full Use	% Flow Diverted	0%	0%	0%	0%	0%	0%	6%	62%	74%	35%	14%	24%	47%
No Act	% Flow Diverted	0%	0%	0%	0%	0%	0%	6%	62%	74%	35%	14%	24%	47%
Alt 1a	% Flow Diverted	0%	0%	0%	0%	0%	0%	6%	62%	74%	35%	14%	24%	47%
Alt 1c	% Flow Diverted	0%	0%	0%	0%	0%	0%	6%	62%	74%	35%	14%	24%	47%
Alt 8a	% Flow Diverted	0%	0%	0%	0%	0%	0%	6%	62%	74%	35%	14%	24%	47%
Alt 10a	% Flow Diverted	0%	0%	0%	0%	0%	0%	6%	62%	74%	35%	14%	24%	47%
Alt 13a	% Flow Diverted	0%	0%	0%	0%	0%	0%	6%	62%	74%	35%	14%	24%	47%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Native Flows		2.4	2.2	1.5	1.2	1.0	0.9	2.2	15.3	43.7	19.9	5.0	2.2	8.1
Diversions														
Current	Diversion	0.9	0.5	0.0	0.0	0.0	0.0	0.9	5.7	2.5	2.1	0.4	0.2	1.1
Full Use	Diversion	0.9	0.5	0.0	0.0	0.0	0.0	0.9	7.4	2.7	2.1	0.4	0.2	1.3
No Act	Diversion	0.9	0.5	0.0	0.0	0.0	0.0	0.9	7.6	2.9	2.7	0.5	0.2	1.3
Alt 1a	Diversion	0.9	0.5	0.0	0.0	0.0	0.0	0.9	9.0	6.9	2.4	0.5	0.2	1.8
Alt 1c	Diversion	0.9	0.5	0.0	0.0	0.0	0.0	0.9	9.0	6.6	2.4	0.5	0.2	1.7
Alt 8a	Diversion	0.9	0.5	0.0	0.0	0.0	0.0	0.9	9.0	6.6	2.4	0.5	0.2	1.7
Alt 10a	Diversion	0.9	0.5	0.0	0.0	0.0	0.0	0.9	9.0	6.8	2.4	0.5	0.2	1.8
Alt 13a	Diversion	0.9	0.5	0.0	0.0	0.0	0.0	0.9	9.0	6.7	2.3	0.5	0.2	1.7
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	35%	21%	2%	0%	0%	0%	40%	37%	6%	11%	8%	7%	14%
Full Use	% Flow Diverted	35%	21%	2%	0%	0%	0%	40%	48%	6%	11%	8%	7%	15%
No Act	% Flow Diverted	35%	21%	2%	0%	0%	0%	40%	50%	7%	13%	11%	7%	16%
Alt 1a	% Flow Diverted	35%	21%	2%	0%	0%	0%	40%	59%	16%	12%	9%	7%	22%
Alt 1c	% Flow Diverted	35%	21%	2%	0%	0%	0%	40%	59%	15%	12%	9%	7%	21%
Alt 8a	% Flow Diverted	35%	21%	2%	0%	0%	0%	40%	59%	15%	12%	9%	7%	21%
Alt 10a	% Flow Diverted	35%	21%	2%	0%	0%	0%	40%	59%	16%	12%	9%	7%	22%
Alt 13a	% Flow Diverted	35%	21%	2%	0%	0%	0%	40%	59%	15%	12%	9%	7%	21%

Table H-12.14. Middle and South Fork of Ranch Creek at Denver Water's Diversions

Values in cfs		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Native Flows		2.4	2.2	1.8	1.5	1.3	1.2	2.4	17.7	43.4	16.3	4.9	2.8	8.2
Diversions														
Current	Diversion	2.3	2.1	1.7	1.4	1.2	1.2	2.4	14.8	18.6	7.4	4.1	2.7	5.0
Full Use	Diversion	2.3	2.2	1.7	1.4	1.2	1.2	2.4	15.0	18.7	8.4	4.1	2.7	5.1
No Act	Diversion	2.3	2.2	1.7	1.4	1.2	1.2	2.4	15.6	20.1	8.9	4.3	2.8	5.3
Alt 1a	Diversion	2.3	2.2	1.8	1.5	1.3	1.2	2.4	17.1	27.3	10.5	4.5	2.8	6.2
Alt 1c	Diversion	2.3	2.2	1.8	1.5	1.3	1.2	2.4	17.1	27.1	10.4	4.5	2.8	6.2
Alt 8a	Diversion	2.3	2.2	1.8	1.5	1.3	1.2	2.4	17.1	26.7	9.8	4.2	2.8	6.1
Alt 10a	Diversion	2.3	2.2	1.8	1.5	1.3	1.2	2.4	17.1	26.8	9.8	4.2	2.8	6.1
Alt 13a	Diversion	2.3	2.2	1.8	1.5	1.3	1.2	2.4	17.1	27.1	10.2	4.4	2.8	6.2
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	95%	96%	95%	94%	94%	97%	99%	84%	43%	45%	83%	98%	61%
Full Use	% Flow Diverted	97%	98%	98%	96%	94%	97%	99%	85%	43%	51%	84%	99%	63%
No Act	% Flow Diverted	97%	98%	98%	94%	94%	97%	99%	88%	46%	54%	87%	99%	65%
Alt 1a	% Flow Diverted	98%	100%	100%	100%	100%	99%	99%	96%	63%	64%	92%	99%	76%
Alt 1c	% Flow Diverted	98%	100%	100%	100%	100%	99%	99%	96%	62%	64%	92%	99%	76%
Alt 8a	% Flow Diverted	98%	100%	100%	100%	100%	99%	99%	96%	62%	60%	85%	99%	75%
Alt 10a	% Flow Diverted	98%	100%	100%	100%	100%	99%	99%	96%	62%	60%	85%	99%	75%
Alt 13a	% Flow Diverted	98%	100%	100%	100%	100%	99%	99%	96%	62%	62%	90%	99%	76%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Native Flows		1.8	1.8	1.5	1.3	1.0	0.9	2.1	11.0	20.3	6.0	3.3	2.6	4.5
Diversions														
Current	Diversion	1.8	1.8	1.5	1.3	1.0	0.9	2.1	11.0	20.3	5.8	3.3	2.6	4.4
Full Use	Diversion	1.8	1.8	1.5	1.3	1.0	0.9	2.1	11.0	20.3	5.8	3.3	2.6	4.4
No Act	Diversion	1.8	1.8	1.5	1.3	1.0	0.9	2.1	11.0	20.3	5.8	3.3	2.6	4.4
Alt 1a	Diversion	1.8	1.8	1.5	1.3	1.0	0.9	2.1	11.0	20.3	5.8	3.3	2.6	4.4
Alt 1c	Diversion	1.8	1.8	1.5	1.3	1.0	0.9	2.1	11.0	20.3	5.8	3.3	2.6	4.4
Alt 8a	Diversion	1.8	1.8	1.5	1.3	1.0	0.9	2.1	11.0	20.3	5.8	3.3	2.6	4.4
Alt 10a	Diversion	1.8	1.8	1.5	1.3	1.0	0.9	2.1	11.0	20.3	5.8	3.3	2.6	4.4
Alt 13a	Diversion	1.8	1.8	1.5	1.3	1.0	0.9	2.1	11.0	20.3	5.8	3.3	2.6	4.4
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	99%	100%	100%	100%	100%	100%	100%	100%	100%	97%	100%	100%	100%
Full Use	% Flow Diverted	99%	100%	100%	100%	100%	100%	100%	100%	100%	97%	100%	100%	100%
No Act	% Flow Diverted	99%	100%	100%	100%	100%	100%	100%	100%	100%	97%	100%	100%	100%
Alt 1a	% Flow Diverted	99%	100%	100%	100%	100%	100%	100%	100%	100%	97%	100%	100%	100%
Alt 1c	% Flow Diverted	99%	100%	100%	100%	100%	100%	100%	100%	100%	97%	100%	100%	100%
Alt 8a	% Flow Diverted	99%	100%	100%	100%	100%	100%	100%	100%	100%	97%	100%	100%	100%
Alt 10a	% Flow Diverted	99%	100%	100%	100%	100%	100%	100%	100%	100%	97%	100%	100%	100%
Alt 13a	% Flow Diverted	99%	100%	100%	100%	100%	100%	100%	100%	100%	97%	100%	100%	100%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Native Flows		3.6	3.2	2.1	1.7	1.5	1.3	3.2	22.4	63.8	29.1	7.3	3.3	11.9
Diversions														
Current	Diversion	3.6	3.2	2.1	1.7	1.5	1.2	3.2	11.7	4.7	5.7	3.6	2.9	3.8
Full Use	Diversion	3.6	3.2	2.1	1.7	1.5	1.2	3.2	14.7	4.8	6.5	3.7	3.1	4.1
No Act	Diversion	3.6	3.2	2.1	1.7	1.5	1.2	3.2	15.1	5.4	7.5	4.4	3.2	4.3
Alt 1a	Diversion	3.6	3.2	2.1	1.7	1.5	1.2	3.2	18.3	13.5	7.3	4.1	3.2	5.2
Alt 1c	Diversion	3.6	3.2	2.1	1.7	1.5	1.2	3.2	18.3	13.1	7.2	4.0	3.2	5.2
Alt 8a	Diversion	3.6	3.2	2.1	1.7	1.5	1.2	3.2	18.3	12.9	7.3	4.1	3.2	5.2
Alt 10a	Diversion	3.6	3.2	2.1	1.7	1.5	1.2	3.2	18.3	12.9	7.2	4.1	3.2	5.2
Alt 13a	Diversion	3.6	3.2	2.1	1.7	1.5	1.2	3.2	18.3	12.9	7.0	4.1	3.2	5.2
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	100%	100%	100%	100%	100%	99%	100%	52%	7%	20%	49%	89%	32%
Full Use	% Flow Diverted	100%	100%	100%	100%	100%	99%	100%	66%	8%	22%	51%	95%	35%
No Act	% Flow Diverted	100%	100%	100%	100%	100%	99%	100%	67%	9%	26%	60%	98%	37%
Alt 1a	% Flow Diverted	100%	100%	100%	100%	100%	99%	100%	82%	21%	25%	56%	98%	44%
Alt 1c	% Flow Diverted	100%	100%	100%	100%	100%	99%	100%	82%	20%	25%	55%	99%	44%
Alt 8a	% Flow Diverted	100%	100%	100%	100%	100%	99%	100%	82%	20%	25%	56%	98%	44%
Alt 10a	% Flow Diverted	100%	100%	100%	100%	100%	99%	100%	82%	20%	25%	56%	98%	44%
Alt 13a	% Flow Diverted	100%	100%	100%	100%	100%	99%	100%	82%	20%	24%	56%	98%	44%

Note: Native flows and diversions were combined for the Middle and South Fork of Ranch Creek.

Table H-12.15. Cub and Buck Creeks at Denver Water's Diversions

Values in cfs		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Native Flows		0.4	0.4	0.3	0.3	0.2	0.2	0.4	3.4	8.0	3.0	0.9	0.5	1.5
Diversions														
Current	Diversion	0.2	0.1	0.0	0.0	0.0	0.1	0.4	3.0	5.7	2.7	0.7	0.3	1.1
Full Use	Diversion	0.2	0.1	0.0	0.0	0.0	0.1	0.4	3.0	6.0	2.7	0.7	0.3	1.1
No Act	Diversion	0.2	0.1	0.0	0.0	0.0	0.1	0.4	3.1	6.3	2.7	0.7	0.3	1.2
Alt 1a	Diversion	0.2	0.1	0.0	0.0	0.0	0.1	0.4	3.3	7.0	2.8	0.7	0.3	1.2
Alt 1c	Diversion	0.2	0.1	0.0	0.0	0.0	0.1	0.4	3.3	7.0	2.8	0.7	0.3	1.2
Alt 8a	Diversion	0.2	0.1	0.0	0.0	0.0	0.1	0.4	3.3	7.0	2.8	0.7	0.3	1.2
Alt 10a	Diversion	0.2	0.1	0.0	0.0	0.0	0.1	0.4	3.3	7.0	2.8	0.7	0.3	1.2
Alt 13a	Diversion	0.2	0.1	0.0	0.0	0.0	0.1	0.4	3.3	7.0	2.8	0.7	0.3	1.2
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	47%	32%	10%	5%	4%	30%	83%	89%	72%	88%	81%	51%	73%
Full Use	% Flow Diverted	48%	31%	9%	4%	2%	30%	84%	89%	75%	90%	80%	51%	74%
No Act	% Flow Diverted	48%	31%	9%	4%	2%	29%	83%	92%	79%	90%	79%	51%	76%
Alt 1a	% Flow Diverted	48%	30%	11%	6%	5%	31%	84%	99%	88%	92%	79%	51%	82%
Alt 1c	% Flow Diverted	48%	30%	11%	6%	5%	30%	84%	99%	88%	92%	79%	51%	82%
Alt 8a	% Flow Diverted	48%	30%	11%	6%	5%	31%	84%	99%	88%	92%	79%	51%	82%
Alt 10a	% Flow Diverted	48%	30%	11%	6%	5%	31%	84%	99%	88%	92%	79%	51%	82%
Alt 13a	% Flow Diverted	48%	30%	11%	6%	5%	31%	84%	99%	88%	91%	79%	51%	82%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Native Flows		0.3	0.3	0.3	0.2	0.2	0.2	0.4	2.1	4.1	1.1	0.6	0.5	0.9
Diversions														
Current	Diversion	0.1	0.1	0.0	0.0	0.0	0.0	0.3	2.1	4.1	0.9	0.3	0.2	0.7
Full Use	Diversion	0.1	0.1	0.0	0.0	0.0	0.0	0.3	2.1	4.1	0.9	0.3	0.2	0.7
No Act	Diversion	0.1	0.1	0.0	0.0	0.0	0.0	0.3	2.1	4.1	0.9	0.3	0.2	0.7
Alt 1a	Diversion	0.1	0.1	0.0	0.0	0.0	0.0	0.3	2.1	4.1	0.9	0.3	0.2	0.7
Alt 1c	Diversion	0.1	0.1	0.0	0.0	0.0	0.0	0.3	2.1	4.1	0.9	0.3	0.2	0.7
Alt 8a	Diversion	0.1	0.1	0.0	0.0	0.0	0.0	0.3	2.1	4.1	0.9	0.3	0.2	0.7
Alt 10a	Diversion	0.1	0.1	0.0	0.0	0.0	0.0	0.3	2.1	4.1	0.9	0.3	0.2	0.7
Alt 13a	Diversion	0.1	0.1	0.0	0.0	0.0	0.0	0.3	2.1	4.1	0.9	0.3	0.2	0.7
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	26%	19%	1%	0%	0%	2%	76%	100%	100%	80%	55%	42%	78%
Full Use	% Flow Diverted	26%	17%	0%	0%	0%	2%	76%	100%	100%	79%	53%	50%	78%
No Act	% Flow Diverted	26%	17%	0%	0%	0%	2%	76%	100%	100%	79%	52%	50%	78%
Alt 1a	% Flow Diverted	26%	17%	0%	0%	0%	2%	76%	100%	100%	79%	52%	50%	78%
Alt 1c	% Flow Diverted	26%	17%	0%	0%	0%	2%	76%	100%	100%	79%	52%	50%	78%
Alt 8a	% Flow Diverted	26%	17%	0%	0%	0%	2%	76%	100%	100%	79%	52%	50%	78%
Alt 10a	% Flow Diverted	26%	17%	0%	0%	0%	2%	76%	100%	100%	79%	52%	50%	78%
Alt 13a	% Flow Diverted	26%	17%	0%	0%	0%	2%	76%	100%	100%	79%	52%	50%	78%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Native Flows		0.7	0.6	0.4	0.3	0.3	0.2	0.6	4.2	10.4	5.2	1.4	0.6	2.1
Diversions														
Current	Diversion	0.6	0.5	0.1	0.1	0.1	0.2	0.5	2.9	3.5	3.6	1.4	0.5	1.2
Full Use	Diversion	0.6	0.4	0.1	0.1	0.0	0.2	0.6	3.1	4.1	3.8	1.4	0.5	1.2
No Act	Diversion	0.6	0.4	0.1	0.1	0.0	0.2	0.6	3.2	4.6	3.8	1.4	0.5	1.3
Alt 1a	Diversion	0.6	0.4	0.1	0.1	0.0	0.2	0.6	3.9	6.0	3.8	1.4	0.5	1.5
Alt 1c	Diversion	0.6	0.4	0.1	0.1	0.0	0.2	0.6	3.9	6.0	3.8	1.3	0.5	1.5
Alt 8a	Diversion	0.6	0.4	0.1	0.1	0.0	0.2	0.6	3.9	5.9	3.8	1.4	0.5	1.4
Alt 10a	Diversion	0.6	0.4	0.1	0.1	0.0	0.2	0.6	3.9	5.9	3.8	1.4	0.5	1.4
Alt 13a	Diversion	0.6	0.4	0.1	0.1	0.0	0.2	0.6	3.9	5.9	3.8	1.4	0.5	1.4
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	88%	77%	32%	27%	20%	75%	92%	70%	33%	68%	98%	83%	56%
Full Use	% Flow Diverted	88%	70%	27%	22%	18%	85%	93%	73%	39%	72%	99%	83%	59%
No Act	% Flow Diverted	88%	70%	27%	22%	18%	85%	93%	77%	44%	72%	99%	83%	62%
Alt 1a	% Flow Diverted	88%	69%	26%	21%	18%	85%	93%	92%	58%	72%	99%	83%	70%
Alt 1c	% Flow Diverted	88%	69%	26%	21%	18%	85%	93%	92%	57%	73%	97%	83%	70%
Alt 8a	% Flow Diverted	88%	69%	26%	21%	18%	85%	93%	92%	57%	72%	99%	83%	70%
Alt 10a	% Flow Diverted	88%	69%	26%	21%	18%	85%	93%	92%	57%	72%	99%	83%	70%
Alt 13a	% Flow Diverted	88%	69%	26%	21%	18%	85%	93%	92%	57%	72%	99%	83%	70%

Note: Native flows and diversions were combined for Cub and Buck Creeks.

Table H-12.16. Steelman Creek at Denver Water's Diversion

Values in cfs		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Native Flows		1.9	1.5	1.1	0.9	0.8	0.8	1.4	9.5	30.8	15.6	4.8	2.6	6.0
Diversions														
Current	Diversion	1.8	1.3	1.0	0.8	0.7	0.7	1.4	7.7	11.3	4.2	3.8	2.4	3.1
Full Use	Diversion	1.8	1.3	1.0	0.8	0.7	0.7	1.4	7.9	11.4	7.2	4.0	2.5	3.4
No Act	Diversion	1.9	1.4	1.0	0.8	0.7	0.7	1.4	8.1	12.2	7.7	4.1	2.5	3.6
Alt 1a	Diversion	1.9	1.5	1.1	0.9	0.8	0.8	1.4	8.7	15.5	9.1	4.3	2.5	4.0
Alt 1c	Diversion	1.9	1.5	1.1	0.9	0.8	0.8	1.4	8.7	15.4	9.0	4.3	2.5	4.0
Alt 8a	Diversion	1.9	1.5	1.1	0.9	0.8	0.8	1.4	8.7	15.3	8.5	4.1	2.5	4.0
Alt 10a	Diversion	1.9	1.5	1.1	0.9	0.8	0.8	1.4	8.7	15.2	8.5	4.1	2.5	3.9
Alt 13a	Diversion	1.9	1.5	1.1	0.9	0.8	0.8	1.4	8.7	15.4	8.8	4.2	2.5	4.0
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	92%	90%	92%	90%	90%	96%	100%	81%	36%	27%	80%	94%	52%
Full Use	% Flow Diverted	95%	93%	95%	92%	90%	96%	100%	83%	37%	46%	84%	98%	57%
No Act	% Flow Diverted	97%	93%	96%	90%	90%	96%	100%	85%	40%	49%	86%	98%	59%
Alt 1a	% Flow Diverted	100%	100%	100%	100%	99%	100%	100%	92%	50%	58%	90%	99%	68%
Alt 1c	% Flow Diverted	100%	100%	100%	100%	99%	100%	100%	92%	50%	58%	90%	99%	67%
Alt 8a	% Flow Diverted	100%	100%	100%	100%	99%	100%	100%	92%	50%	54%	85%	99%	66%
Alt 10a	% Flow Diverted	100%	100%	100%	100%	99%	100%	100%	92%	49%	54%	85%	99%	66%
Alt 13a	% Flow Diverted	100%	100%	100%	100%	99%	100%	100%	92%	50%	56%	88%	99%	67%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Native Flows		2.1	1.5	1.1	0.8	0.6	0.6	1.3	8.6	17.3	6.1	3.3	2.0	3.8
Diversions														
Current	Diversion	2.1	1.5	1.1	0.8	0.6	0.6	1.3	8.6	15.9	1.4	3.1	1.9	3.2
Full Use	Diversion	2.1	1.5	1.1	0.8	0.6	0.6	1.3	8.6	17.0	5.4	3.3	2.0	3.7
No Act	Diversion	2.1	1.5	1.1	0.8	0.6	0.6	1.3	8.6	17.0	5.4	3.3	2.0	3.7
Alt 1a	Diversion	2.1	1.5	1.1	0.8	0.6	0.6	1.3	8.6	17.0	5.4	3.3	2.0	3.7
Alt 1c	Diversion	2.1	1.5	1.1	0.8	0.6	0.6	1.3	8.6	17.0	5.4	3.3	2.0	3.7
Alt 8a	Diversion	2.1	1.5	1.1	0.8	0.6	0.6	1.3	8.6	17.0	5.4	3.3	2.0	3.7
Alt 10a	Diversion	2.1	1.5	1.1	0.8	0.6	0.6	1.3	8.6	17.0	5.4	3.3	2.0	3.7
Alt 13a	Diversion	2.1	1.5	1.1	0.8	0.6	0.6	1.3	8.6	17.0	5.4	3.3	2.0	3.7
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	100%	100%	100%	99%	99%	98%	99%	100%	92%	22%	93%	96%	86%
Full Use	% Flow Diverted	100%	100%	100%	99%	99%	98%	99%	100%	98%	88%	100%	100%	97%
No Act	% Flow Diverted	100%	100%	100%	99%	99%	98%	99%	100%	98%	88%	100%	100%	97%
Alt 1a	% Flow Diverted	100%	100%	100%	99%	99%	98%	99%	100%	98%	88%	100%	100%	97%
Alt 1c	% Flow Diverted	100%	100%	100%	99%	99%	98%	99%	100%	98%	88%	100%	100%	97%
Alt 8a	% Flow Diverted	100%	100%	100%	99%	99%	98%	99%	100%	98%	88%	100%	100%	97%
Alt 10a	% Flow Diverted	100%	100%	100%	99%	99%	98%	99%	100%	98%	88%	100%	100%	97%
Alt 13a	% Flow Diverted	100%	100%	100%	99%	99%	98%	99%	100%	98%	88%	100%	100%	97%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Native Flows		2.7	1.6	1.2	1.1	1.1	1.0	1.6	11.8	37.4	25.6	8.3	3.5	8.1
Diversions														
Current	Diversion	2.7	1.6	1.2	1.1	1.0	1.0	1.6	5.1	2.0	3.4	4.1	2.9	2.3
Full Use	Diversion	2.7	1.6	1.2	1.1	1.0	1.0	1.6	6.9	2.2	4.0	4.3	3.3	2.6
No Act	Diversion	2.7	1.6	1.2	1.1	1.0	1.0	1.6	7.2	2.4	4.5	4.7	3.3	2.7
Alt 1a	Diversion	2.7	1.6	1.2	1.1	1.0	1.0	1.6	8.7	5.0	4.3	4.5	3.4	3.0
Alt 1c	Diversion	2.7	1.6	1.2	1.1	1.0	1.0	1.6	8.7	5.0	4.2	4.3	3.4	3.0
Alt 8a	Diversion	2.7	1.6	1.2	1.1	1.0	1.0	1.6	8.7	5.0	4.4	4.5	3.4	3.0
Alt 10a	Diversion	2.7	1.6	1.2	1.1	1.0	1.0	1.6	8.7	5.0	4.4	4.5	3.4	3.0
Alt 13a	Diversion	2.7	1.6	1.2	1.1	1.0	1.0	1.6	8.7	5.0	4.4	4.5	3.4	3.0
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	100%	100%	99%	98%	97%	100%	100%	43%	5%	13%	49%	83%	29%
Full Use	% Flow Diverted	100%	100%	99%	98%	97%	100%	100%	59%	6%	15%	52%	93%	32%
No Act	% Flow Diverted	100%	100%	99%	98%	97%	100%	100%	61%	6%	17%	57%	95%	33%
Alt 1a	% Flow Diverted	100%	100%	99%	98%	97%	100%	100%	74%	13%	17%	54%	96%	37%
Alt 1c	% Flow Diverted	100%	100%	99%	98%	97%	100%	100%	74%	13%	16%	52%	96%	37%
Alt 8a	% Flow Diverted	100%	100%	99%	98%	97%	100%	100%	74%	13%	17%	54%	96%	37%
Alt 10a	% Flow Diverted	100%	100%	99%	98%	97%	100%	100%	74%	13%	17%	54%	96%	37%
Alt 13a	% Flow Diverted	100%	100%	99%	98%	97%	100%	100%	74%	13%	17%	54%	96%	37%

Table H-12.17. Bobtail Creek at Denver Water's Diversion

Values in cfs		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Native Flows		2.8	1.7	1.1	0.9	0.7	0.7	1.5	14.6	56.1	28.9	9.3	4.3	10.2
Diversions														
Current	Diversion	2.7	1.6	1.0	0.8	0.7	0.7	1.5	11.9	21.1	9.1	7.5	4.1	5.2
Full Use	Diversion	2.8	1.6	1.0	0.8	0.7	0.7	1.5	12.1	21.2	14.5	7.8	4.2	5.8
No Act	Diversion	2.8	1.6	1.0	0.8	0.7	0.7	1.5	12.6	22.6	15.4	8.1	4.3	6.0
Alt 1a	Diversion	2.8	1.7	1.1	0.9	0.7	0.7	1.5	13.7	29.5	17.9	8.4	4.3	6.9
Alt 1c	Diversion	2.8	1.7	1.1	0.9	0.7	0.7	1.5	13.7	29.3	17.9	8.4	4.3	6.9
Alt 8a	Diversion	2.8	1.7	1.1	0.9	0.7	0.7	1.5	13.7	28.9	16.9	8.0	4.3	6.8
Alt 10a	Diversion	2.8	1.7	1.1	0.9	0.7	0.7	1.5	13.7	28.8	16.8	8.0	4.3	6.8
Alt 13a	Diversion	2.8	1.7	1.1	0.9	0.7	0.7	1.5	13.7	29.3	17.4	8.3	4.3	6.9
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	95%	94%	95%	95%	95%	98%	100%	82%	38%	32%	81%	94%	51%
Full Use	% Flow Diverted	98%	97%	98%	96%	95%	98%	100%	83%	38%	50%	85%	98%	56%
No Act	% Flow Diverted	99%	97%	98%	95%	95%	98%	100%	87%	40%	53%	87%	99%	59%
Alt 1a	% Flow Diverted	100%	100%	100%	100%	100%	100%	100%	94%	53%	62%	91%	99%	68%
Alt 1c	% Flow Diverted	100%	100%	100%	100%	100%	100%	100%	94%	52%	62%	91%	99%	68%
Alt 8a	% Flow Diverted	100%	100%	100%	100%	100%	100%	100%	94%	51%	58%	86%	99%	66%
Alt 10a	% Flow Diverted	100%	100%	100%	100%	100%	100%	100%	94%	51%	58%	86%	99%	66%
Alt 13a	% Flow Diverted	100%	100%	100%	100%	100%	100%	100%	94%	52%	60%	89%	99%	67%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Native Flows		2.2	1.4	0.9	0.8	0.7	0.7	1.8	13.2	33.3	12.6	6.1	3.5	6.4
Diversions														
Current	Diversion	2.2	1.4	0.9	0.8	0.7	0.7	1.8	13.2	32.1	3.4	5.8	3.5	5.5
Full Use	Diversion	2.2	1.4	0.9	0.8	0.7	0.7	1.8	13.2	33.3	11.6	6.1	3.5	6.3
No Act	Diversion	2.2	1.4	0.9	0.8	0.7	0.7	1.8	13.2	33.3	11.6	6.1	3.5	6.3
Alt 1a	Diversion	2.2	1.4	0.9	0.8	0.7	0.7	1.8	13.2	33.3	11.6	6.1	3.5	6.3
Alt 1c	Diversion	2.2	1.4	0.9	0.8	0.7	0.7	1.8	13.2	33.3	11.6	6.1	3.5	6.3
Alt 8a	Diversion	2.2	1.4	0.9	0.8	0.7	0.7	1.8	13.2	33.3	11.6	6.1	3.5	6.3
Alt 10a	Diversion	2.2	1.4	0.9	0.8	0.7	0.7	1.8	13.2	33.3	11.6	6.1	3.5	6.3
Alt 13a	Diversion	2.2	1.4	0.9	0.8	0.7	0.7	1.8	13.2	33.3	11.6	6.1	3.5	6.3
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	100%	100%	100%	100%	100%	99%	99%	100%	96%	27%	94%	99%	86%
Full Use	% Flow Diverted	100%	100%	100%	100%	100%	99%	99%	100%	100%	92%	100%	100%	99%
No Act	% Flow Diverted	100%	100%	100%	100%	100%	99%	99%	100%	100%	92%	100%	100%	99%
Alt 1a	% Flow Diverted	100%	100%	100%	100%	100%	99%	99%	100%	100%	92%	100%	100%	99%
Alt 1c	% Flow Diverted	100%	100%	100%	100%	100%	99%	99%	100%	100%	92%	100%	100%	99%
Alt 8a	% Flow Diverted	100%	100%	100%	100%	100%	99%	99%	100%	100%	92%	100%	100%	99%
Alt 10a	% Flow Diverted	100%	100%	100%	100%	100%	99%	99%	100%	100%	92%	100%	100%	99%
Alt 13a	% Flow Diverted	100%	100%	100%	100%	100%	99%	99%	100%	100%	92%	100%	100%	99%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Native Flows		4.3	2.4	1.3	1.1	1.0	0.9	1.9	14.9	76.4	46.3	16.3	6.4	14.4
Diversions														
Current	Diversion	4.3	2.4	1.3	1.0	0.9	0.9	1.9	7.5	3.5	8.9	8.0	4.9	3.8
Full Use	Diversion	4.3	2.4	1.3	1.0	0.9	0.9	1.9	10.2	3.8	10.3	8.4	5.8	4.3
No Act	Diversion	4.3	2.4	1.3	1.0	0.9	0.9	1.9	10.3	4.2	11.4	9.9	6.2	4.6
Alt 1a	Diversion	4.3	2.4	1.3	1.0	0.9	0.9	1.9	12.6	10.1	11.5	9.4	6.2	5.2
Alt 1c	Diversion	4.3	2.4	1.3	1.0	0.9	0.9	1.9	12.6	10.1	11.4	9.1	6.2	5.2
Alt 8a	Diversion	4.3	2.4	1.3	1.0	0.9	0.9	1.9	12.6	10.1	11.6	9.4	6.2	5.2
Alt 10a	Diversion	4.3	2.4	1.3	1.0	0.9	0.9	1.9	12.6	10.1	11.6	9.4	6.2	5.2
Alt 13a	Diversion	4.3	2.4	1.3	1.0	0.9	0.9	1.9	12.6	10.1	11.3	9.4	6.2	5.2
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	100%	100%	100%	98%	97%	100%	100%	50%	5%	19%	49%	77%	26%
Full Use	% Flow Diverted	100%	100%	100%	98%	97%	100%	100%	68%	5%	22%	51%	91%	30%
No Act	% Flow Diverted	100%	100%	100%	98%	97%	100%	100%	70%	6%	25%	60%	97%	32%
Alt 1a	% Flow Diverted	100%	100%	100%	98%	97%	100%	100%	85%	13%	25%	57%	97%	36%
Alt 1c	% Flow Diverted	100%	100%	100%	98%	97%	100%	100%	85%	13%	25%	56%	98%	36%
Alt 8a	% Flow Diverted	100%	100%	100%	98%	97%	100%	100%	85%	13%	25%	57%	97%	36%
Alt 10a	% Flow Diverted	100%	100%	100%	98%	97%	100%	100%	85%	13%	25%	57%	97%	36%
Alt 13a	% Flow Diverted	100%	100%	100%	98%	97%	100%	100%	85%	13%	24%	57%	97%	36%

Table H-12.18. Jones Creek at Denver Water's Diversion

Values in cfs		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Native Flows		1.0	0.7	0.5	0.4	0.3	0.3	0.7	4.9	16.4	8.4	2.5	1.3	3.1
Diversions														
Current	Diversion	0.9	0.6	0.4	0.3	0.3	0.3	0.7	4.0	5.6	2.0	2.0	1.2	1.5
Full Use	Diversion	0.9	0.6	0.5	0.4	0.3	0.3	0.7	4.0	5.7	3.8	2.1	1.3	1.7
No Act	Diversion	0.9	0.6	0.5	0.3	0.3	0.3	0.7	4.1	6.1	4.1	2.1	1.3	1.8
Alt 1a	Diversion	0.9	0.7	0.5	0.4	0.3	0.3	0.7	4.5	7.7	4.8	2.3	1.3	2.0
Alt 1c	Diversion	0.9	0.7	0.5	0.4	0.3	0.3	0.7	4.5	7.6	4.8	2.3	1.3	2.0
Alt 8a	Diversion	0.9	0.7	0.5	0.4	0.3	0.3	0.7	4.5	7.6	4.5	2.1	1.3	2.0
Alt 10a	Diversion	0.9	0.7	0.5	0.4	0.3	0.3	0.7	4.5	7.5	4.4	2.1	1.3	2.0
Alt 13a	Diversion	0.9	0.7	0.5	0.4	0.3	0.3	0.7	4.5	7.6	4.6	2.2	1.3	2.0
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	92%	89%	91%	90%	90%	94%	100%	80%	34%	24%	79%	94%	49%
Full Use	% Flow Diverted	95%	93%	94%	92%	90%	94%	100%	82%	35%	45%	83%	97%	55%
No Act	% Flow Diverted	96%	93%	96%	90%	90%	94%	100%	84%	37%	48%	85%	98%	57%
Alt 1a	% Flow Diverted	100%	100%	99%	99%	99%	99%	100%	90%	47%	57%	90%	98%	65%
Alt 1c	% Flow Diverted	100%	100%	99%	99%	99%	99%	100%	90%	46%	56%	90%	98%	65%
Alt 8a	% Flow Diverted	100%	100%	99%	99%	99%	99%	100%	90%	46%	53%	84%	98%	63%
Alt 10a	% Flow Diverted	100%	100%	99%	99%	99%	99%	100%	90%	46%	53%	84%	98%	63%
Alt 13a	% Flow Diverted	100%	100%	99%	99%	99%	99%	100%	90%	46%	55%	88%	98%	64%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Native Flows		1.1	0.7	0.5	0.3	0.3	0.3	0.6	4.4	9.2	3.3	1.7	1.0	2.0
Diversions														
Current	Diversion	1.1	0.7	0.5	0.3	0.3	0.3	0.6	4.4	8.3	0.6	1.6	1.0	1.6
Full Use	Diversion	1.1	0.7	0.5	0.3	0.3	0.3	0.6	4.4	8.9	2.8	1.7	1.0	1.9
No Act	Diversion	1.1	0.7	0.5	0.3	0.3	0.3	0.6	4.4	8.9	2.8	1.7	1.0	1.9
Alt 1a	Diversion	1.1	0.7	0.5	0.3	0.3	0.3	0.6	4.4	8.9	2.8	1.7	1.0	1.9
Alt 1c	Diversion	1.1	0.7	0.5	0.3	0.3	0.3	0.6	4.4	8.9	2.8	1.7	1.0	1.9
Alt 8a	Diversion	1.1	0.7	0.5	0.3	0.3	0.3	0.6	4.4	8.9	2.8	1.7	1.0	1.9
Alt 10a	Diversion	1.1	0.7	0.5	0.3	0.3	0.3	0.6	4.4	8.9	2.8	1.7	1.0	1.9
Alt 13a	Diversion	1.1	0.7	0.5	0.3	0.3	0.3	0.6	4.4	8.9	2.8	1.7	1.0	1.9
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	100%	100%	100%	98%	99%	98%	99%	100%	90%	18%	93%	93%	84%
Full Use	% Flow Diverted	100%	100%	100%	98%	99%	98%	99%	100%	96%	86%	100%	100%	96%
No Act	% Flow Diverted	100%	100%	100%	98%	99%	98%	99%	100%	96%	86%	100%	100%	96%
Alt 1a	% Flow Diverted	100%	100%	100%	98%	99%	98%	99%	100%	96%	86%	100%	100%	96%
Alt 1c	% Flow Diverted	100%	100%	100%	98%	99%	98%	99%	100%	96%	86%	100%	100%	96%
Alt 8a	% Flow Diverted	100%	100%	100%	98%	99%	98%	99%	100%	96%	86%	100%	100%	96%
Alt 10a	% Flow Diverted	100%	100%	100%	98%	99%	98%	99%	100%	96%	86%	100%	100%	96%
Alt 13a	% Flow Diverted	100%	100%	100%	98%	99%	98%	99%	100%	96%	86%	100%	100%	96%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Native Flows		1.3	0.7	0.6	0.5	0.5	0.4	0.7	6.1	19.9	13.9	4.3	1.8	4.2
Diversions														
Current	Diversion	1.3	0.7	0.6	0.5	0.5	0.4	0.7	2.6	0.9	1.8	2.1	1.5	1.1
Full Use	Diversion	1.3	0.7	0.6	0.5	0.5	0.4	0.7	3.5	1.1	2.1	2.2	1.7	1.3
No Act	Diversion	1.3	0.7	0.6	0.5	0.5	0.4	0.7	3.6	1.2	2.3	2.5	1.7	1.3
Alt 1a	Diversion	1.3	0.7	0.6	0.5	0.5	0.4	0.7	4.4	2.5	2.2	2.3	1.7	1.5
Alt 1c	Diversion	1.3	0.7	0.6	0.5	0.5	0.4	0.7	4.4	2.5	2.2	2.2	1.7	1.5
Alt 8a	Diversion	1.3	0.7	0.6	0.5	0.5	0.4	0.7	4.4	2.5	2.2	2.3	1.7	1.5
Alt 10a	Diversion	1.3	0.7	0.6	0.5	0.5	0.4	0.7	4.4	2.5	2.2	2.3	1.7	1.5
Alt 13a	Diversion	1.3	0.7	0.6	0.5	0.5	0.4	0.7	4.4	2.5	2.3	2.3	1.7	1.5
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	100%	100%	99%	98%	97%	100%	100%	43%	5%	13%	48%	83%	27%
Full Use	% Flow Diverted	100%	100%	99%	98%	97%	100%	100%	58%	5%	15%	51%	92%	30%
No Act	% Flow Diverted	100%	100%	99%	98%	97%	100%	100%	60%	6%	17%	57%	94%	32%
Alt 1a	% Flow Diverted	100%	100%	99%	98%	97%	100%	100%	72%	13%	16%	53%	96%	35%
Alt 1c	% Flow Diverted	100%	100%	99%	98%	97%	100%	100%	72%	13%	16%	52%	96%	35%
Alt 8a	% Flow Diverted	100%	100%	99%	98%	97%	100%	100%	72%	13%	16%	53%	96%	35%
Alt 10a	% Flow Diverted	100%	100%	99%	98%	97%	100%	100%	72%	13%	16%	53%	96%	35%
Alt 13a	% Flow Diverted	100%	100%	99%	98%	97%	100%	100%	72%	13%	16%	53%	96%	35%

Table H-12.19. McQueary Creek at Denver Water's Diversion

Values in cfs		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Native Flows		1.2	0.8	0.6	0.5	0.4	0.4	0.8	6.5	22.5	11.7	3.4	1.7	4.2
Diversions														
Current	Diversion	1.1	0.8	0.5	0.4	0.4	0.4	0.8	5.4	9.7	4.2	2.8	1.6	2.3
Full Use	Diversion	1.1	0.8	0.6	0.4	0.4	0.4	0.8	5.4	9.9	6.0	2.9	1.7	2.5
No Act	Diversion	1.2	0.8	0.6	0.4	0.4	0.4	0.8	5.7	10.4	6.3	2.9	1.7	2.6
Alt 1a	Diversion	1.2	0.8	0.6	0.5	0.4	0.4	0.8	6.1	13.4	7.5	3.1	1.7	3.0
Alt 1c	Diversion	1.2	0.8	0.6	0.5	0.4	0.4	0.8	6.1	13.3	7.4	3.1	1.7	3.0
Alt 8a	Diversion	1.2	0.8	0.6	0.5	0.4	0.4	0.8	6.1	13.2	7.1	2.9	1.7	3.0
Alt 10a	Diversion	1.2	0.8	0.6	0.5	0.4	0.4	0.8	6.1	13.2	7.1	2.9	1.7	3.0
Alt 13a	Diversion	1.2	0.8	0.6	0.5	0.4	0.4	0.8	6.1	13.3	7.3	3.0	1.7	3.0
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	93%	90%	91%	90%	91%	96%	100%	82%	43%	35%	81%	94%	55%
Full Use	% Flow Diverted	95%	93%	95%	92%	91%	96%	100%	83%	44%	51%	84%	98%	60%
No Act	% Flow Diverted	96%	93%	96%	90%	91%	96%	100%	87%	46%	54%	86%	98%	62%
Alt 1a	% Flow Diverted	100%	100%	99%	99%	99%	100%	100%	94%	59%	64%	90%	98%	72%
Alt 1c	% Flow Diverted	100%	100%	99%	99%	99%	100%	100%	94%	59%	63%	90%	98%	72%
Alt 8a	% Flow Diverted	100%	100%	99%	99%	99%	100%	100%	94%	58%	60%	85%	98%	70%
Alt 10a	% Flow Diverted	100%	100%	99%	99%	99%	100%	100%	94%	58%	60%	85%	98%	70%
Alt 13a	% Flow Diverted	100%	100%	99%	99%	99%	100%	100%	94%	59%	62%	88%	98%	71%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Native Flows		1.3	0.9	0.6	0.4	0.3	0.3	0.8	5.8	12.6	4.6	2.3	1.3	2.6
Diversions														
Current	Diversion	1.3	0.9	0.6	0.4	0.3	0.3	0.7	5.8	12.3	1.7	2.1	1.2	2.3
Full Use	Diversion	1.3	0.9	0.6	0.4	0.3	0.3	0.7	5.8	12.6	4.0	2.3	1.3	2.5
No Act	Diversion	1.3	0.9	0.6	0.4	0.3	0.3	0.7	5.8	12.6	4.0	2.3	1.3	2.5
Alt 1a	Diversion	1.3	0.9	0.6	0.4	0.3	0.3	0.7	5.8	12.6	4.0	2.3	1.3	2.5
Alt 1c	Diversion	1.3	0.9	0.6	0.4	0.3	0.3	0.7	5.8	12.6	4.0	2.3	1.3	2.5
Alt 8a	Diversion	1.3	0.9	0.6	0.4	0.3	0.3	0.7	5.8	12.6	4.0	2.3	1.3	2.5
Alt 10a	Diversion	1.3	0.9	0.6	0.4	0.3	0.3	0.7	5.8	12.6	4.0	2.3	1.3	2.5
Alt 13a	Diversion	1.3	0.9	0.6	0.4	0.3	0.3	0.7	5.8	12.6	4.0	2.3	1.3	2.5
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	97%	100%	99%	98%	99%	98%	99%	100%	98%	37%	92%	91%	89%
Full Use	% Flow Diverted	97%	100%	99%	98%	99%	98%	99%	100%	100%	88%	100%	100%	98%
No Act	% Flow Diverted	97%	100%	99%	98%	99%	98%	99%	100%	100%	88%	100%	100%	98%
Alt 1a	% Flow Diverted	97%	100%	99%	98%	99%	98%	99%	100%	100%	88%	100%	100%	98%
Alt 1c	% Flow Diverted	97%	100%	99%	98%	99%	98%	99%	100%	100%	88%	100%	100%	98%
Alt 8a	% Flow Diverted	97%	100%	99%	98%	99%	98%	99%	100%	100%	88%	100%	100%	98%
Alt 10a	% Flow Diverted	97%	100%	99%	98%	99%	98%	99%	100%	100%	88%	100%	100%	98%
Alt 13a	% Flow Diverted	97%	100%	99%	98%	99%	98%	99%	100%	100%	88%	100%	100%	98%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Native Flows		1.7	0.9	0.7	0.6	0.5	0.5	0.9	8.1	27.3	19.3	5.9	2.4	5.7
Diversions														
Current	Diversion	1.7	0.9	0.7	0.6	0.5	0.5	0.9	3.6	2.0	3.3	2.9	2.0	1.6
Full Use	Diversion	1.7	0.9	0.7	0.6	0.5	0.5	0.9	4.8	2.1	3.8	3.1	2.2	1.8
No Act	Diversion	1.7	0.9	0.7	0.6	0.5	0.5	0.9	4.9	2.2	4.0	3.5	2.3	1.9
Alt 1a	Diversion	1.7	0.9	0.7	0.6	0.5	0.5	0.9	6.0	4.6	4.5	3.2	2.3	2.2
Alt 1c	Diversion	1.7	0.9	0.7	0.6	0.5	0.5	0.9	6.0	4.6	4.6	3.2	2.3	2.2
Alt 8a	Diversion	1.7	0.9	0.7	0.6	0.5	0.5	0.9	6.0	4.6	4.6	3.2	2.3	2.2
Alt 10a	Diversion	1.7	0.9	0.7	0.6	0.5	0.5	0.9	6.0	4.6	4.6	3.2	2.3	2.2
Alt 13a	Diversion	1.7	0.9	0.7	0.6	0.5	0.5	0.9	6.0	4.6	4.3	3.2	2.3	2.2
Percent Change from Natural Flow														
% of Native Flow Depleted														
Current	% Flow Diverted	100%	100%	99%	98%	97%	100%	100%	45%	7%	17%	49%	86%	28%
Full Use	% Flow Diverted	100%	100%	99%	98%	97%	100%	100%	60%	8%	20%	52%	95%	32%
No Act	% Flow Diverted	100%	100%	99%	98%	97%	100%	100%	61%	8%	21%	59%	96%	33%
Alt 1a	% Flow Diverted	100%	100%	99%	98%	97%	100%	100%	74%	17%	23%	55%	96%	38%
Alt 1c	% Flow Diverted	100%	100%	99%	98%	97%	100%	100%	74%	17%	24%	54%	96%	38%
Alt 8a	% Flow Diverted	100%	100%	99%	98%	97%	100%	100%	74%	17%	24%	55%	96%	38%
Alt 10a	% Flow Diverted	100%	100%	99%	98%	97%	100%	100%	74%	17%	24%	55%	96%	38%
Alt 13a	% Flow Diverted	100%	100%	99%	98%	97%	100%	100%	74%	17%	22%	55%	96%	38%

Table H-12.20. South Boulder Creek at Pinecliffe Gage

Values in cfs		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Native Flows		14.0	11.2	9.4	8.2	8.1	11.4	35.0	164.7	274.5	108.5	36.6	18.0	58.3
Moffat Tunnel Delivery														
Current	Delivery	44.4	26.1	18.4	14.9	13.4	13.4	29.6	194.1	331.3	181.6	110.9	75.5	87.8
Full Use	Delivery	44.9	24.4	17.0	15.0	13.4	13.4	29.6	199.0	345.4	205.2	114.7	76.4	91.5
No Act	Delivery	45.1	24.4	17.0	14.7	13.4	13.4	29.6	206.5	368.0	210.9	116.6	76.8	94.7
Alt 1a	Delivery	45.0	24.9	17.4	15.6	14.1	13.7	29.6	224.9	451.3	235.5	120.4	76.8	105.8
Alt 1c	Delivery	45.0	24.9	17.4	15.6	14.1	13.7	29.6	224.9	448.8	235.3	120.4	76.8	105.5
Alt 8a	Delivery	45.7	24.9	17.4	15.6	14.1	13.7	29.6	224.9	445.6	226.5	115.7	76.8	104.2
Alt 10a	Delivery	45.7	24.9	17.4	15.6	14.1	13.7	29.6	224.9	445.6	226.4	115.8	76.8	104.2
Alt 13a	Delivery	45.4	24.9	17.4	15.6	14.1	13.7	29.6	224.9	449.5	231.1	118.5	76.7	105.1
Percent Change from Natural Flow														
% Added to Native Flow														
Current	% Flow Added	318%	233%	196%	182%	166%	117%	85%	118%	121%	167%	303%	419%	151%
Full Use	% Flow Added	321%	218%	181%	183%	165%	118%	85%	121%	126%	189%	313%	424%	157%
No Act	% Flow Added	323%	218%	181%	179%	165%	118%	85%	125%	134%	194%	319%	426%	162%
Alt 1a	% Flow Added	321%	223%	185%	191%	174%	120%	85%	137%	164%	217%	329%	426%	181%
Alt 1c	% Flow Added	321%	223%	185%	191%	174%	120%	85%	137%	164%	217%	329%	426%	181%
Alt 8a	% Flow Added	327%	223%	185%	191%	174%	120%	85%	137%	162%	209%	316%	426%	179%
Alt 10a	% Flow Added	327%	223%	185%	191%	174%	120%	85%	137%	162%	209%	316%	426%	179%
Alt 13a	% Flow Added	324%	223%	185%	191%	174%	120%	85%	137%	164%	213%	324%	425%	180%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Native Flows		9.6	6.9	7.2	4.6	4.6	6.1	20.7	90.1	126.4	47.4	27.0	19.7	30.9
Moffat Tunnel Delivery														
Current	Delivery	36.8	22.3	14.9	11.7	10.4	10.1	30.1	178.2	322.8	93.3	87.6	54.4	72.7
Full Use	Delivery	36.0	19.9	13.0	11.4	10.3	10.1	30.1	180.2	332.3	114.4	91.4	55.6	75.4
No Act	Delivery	36.0	19.9	13.0	11.4	10.3	10.1	30.1	180.2	332.3	114.4	91.4	55.6	75.4
Alt 1a	Delivery	36.0	19.9	13.0	11.4	10.3	10.1	30.1	180.2	332.3	114.4	91.4	55.6	75.4
Alt 1c	Delivery	36.0	19.9	13.0	11.4	10.3	10.1	30.1	180.2	332.3	114.4	91.4	55.6	75.4
Alt 8a	Delivery	36.0	19.9	13.0	11.4	10.3	10.1	30.1	180.2	332.3	114.4	91.4	55.6	75.4
Alt 10a	Delivery	36.0	19.9	13.0	11.4	10.3	10.1	30.1	180.2	332.3	114.4	91.4	55.6	75.4
Alt 13a	Delivery	36.0	19.9	13.0	11.4	10.3	10.1	30.1	180.2	332.3	114.4	91.4	55.6	75.4
Percent Change from Natural Flow														
% Added to Native Flow														
Current	% Flow Added	386%	322%	208%	252%	227%	165%	145%	198%	255%	197%	325%	276%	236%
Full Use	% Flow Added	377%	288%	181%	246%	225%	165%	145%	200%	263%	242%	339%	282%	244%
No Act	% Flow Added	377%	288%	181%	246%	225%	165%	145%	200%	263%	242%	339%	282%	244%
Alt 1a	% Flow Added	377%	288%	181%	246%	225%	165%	145%	200%	263%	242%	339%	282%	244%
Alt 1c	% Flow Added	377%	288%	181%	246%	225%	165%	145%	200%	263%	242%	339%	282%	244%
Alt 8a	% Flow Added	377%	288%	181%	246%	225%	165%	145%	200%	263%	242%	339%	282%	244%
Alt 10a	% Flow Added	377%	288%	181%	246%	225%	165%	145%	200%	263%	242%	339%	282%	244%
Alt 13a	% Flow Added	377%	288%	181%	246%	225%	165%	145%	200%	263%	242%	339%	282%	244%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Native Flows		19.5	14.7	10.5	10.0	10.1	12.8	62.7	210.6	334.9	144.2	45.2	15.9	74.2
Moffat Tunnel Delivery														
Current	Delivery	70.1	34.0	23.4	19.4	18.0	17.0	36.4	162.2	147.5	193.0	126.0	97.6	78.7
Full Use	Delivery	69.4	31.8	21.4	19.1	17.9	17.0	36.4	194.5	171.1	214.8	135.3	103.2	86.0
No Act	Delivery	68.8	31.6	21.4	19.1	17.9	17.0	36.4	201.0	190.5	225.2	147.9	106.0	90.2
Alt 1a	Delivery	69.1	31.6	21.4	19.1	17.9	17.0	36.4	247.3	296.8	223.0	142.6	106.1	102.4
Alt 1c	Delivery	69.1	31.6	21.4	19.1	17.9	17.0	36.4	247.0	290.4	220.8	140.4	106.3	101.4
Alt 8a	Delivery	68.9	31.6	21.4	19.1	17.9	17.0	36.4	247.0	292.0	222.9	142.4	106.1	101.9
Alt 10a	Delivery	68.8	31.6	21.4	19.1	17.9	17.0	36.4	247.2	292.8	222.7	142.5	106.1	102.0
Alt 13a	Delivery	69.1	31.6	21.4	19.1	17.9	17.0	36.4	247.2	293.4	222.5	142.6	106.1	102.0
Percent Change from Natural Flow														
% Added to Natural Flow														
Current	% Flow Added	359%	232%	223%	194%	177%	133%	58%	77%	44%	134%	279%	615%	106%
Full Use	% Flow Added	355%	217%	205%	191%	176%	133%	58%	92%	51%	149%	299%	651%	116%
No Act	% Flow Added	352%	215%	205%	191%	176%	133%	58%	95%	57%	156%	327%	669%	122%
Alt 1a	% Flow Added	354%	215%	205%	191%	176%	133%	58%	117%	89%	155%	315%	669%	138%
Alt 1c	% Flow Added	354%	215%	205%	191%	176%	133%	58%	117%	87%	153%	311%	670%	137%
Alt 8a	% Flow Added	353%	215%	205%	191%	176%	133%	58%	117%	87%	155%	315%	669%	137%
Alt 10a	% Flow Added	352%	215%	205%	191%	176%	133%	58%	117%	87%	154%	315%	669%	137%
Alt 13a	% Flow Added	354%	215%	205%	191%	176%	133%	58%	117%	88%	154%	315%	669%	137%

Table H-12.21. North Fork South Platte River below Geneva Creek Gage

Values in cfs		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
45 Year Average														
Native Flows		36.7	29.3	22.0	18.1	16.6	18.9	33.7	130.2	252.9	151.8	82.8	49.5	70.2
Roberts Tunnel Delivery														
Current	Delivery	116.0	67.6	73.8	68.0	70.3	60.9	79.3	41.7	59.4	103.3	175.0	185.7	91.8
Full Use	Delivery	167.8	85.5	91.8	79.0	80.3	68.6	89.4	63.3	102.8	166.5	249.3	291.0	127.9
No Act	Delivery	181.2	90.7	100.1	88.9	90.7	78.0	99.1	72.2	111.3	191.3	278.8	316.6	141.6
Alt 1a	Delivery	164.0	57.1	60.1	50.7	51.5	44.9	78.6	118.7	150.6	228.7	292.2	312.9	134.2
Alt 1c	Delivery	164.1	57.3	60.3	50.5	51.6	45.0	78.3	118.8	150.8	229.5	295.5	314.9	134.7
Alt 8a	Delivery	163.9	57.3	60.3	51.2	51.9	45.2	77.6	117.7	149.1	227.2	290.0	310.9	133.5
Alt 10a	Delivery	163.7	57.3	60.3	51.2	51.9	45.1	77.7	118.1	149.3	227.1	289.9	311.2	133.6
Alt 13a	Delivery	163.4	56.8	60.0	50.4	51.6	44.7	78.0	118.7	149.8	229.1	290.7	311.8	133.8
Percent Change from Natural Flow														
% Added to Native Flow														
Current	% Flow Added	316%	230%	335%	375%	425%	323%	236%	32%	24%	68%	211%	375%	131%
Full Use	% Flow Added	457%	291%	417%	436%	485%	363%	265%	49%	41%	110%	301%	588%	182%
No Act	% Flow Added	493%	309%	455%	491%	548%	413%	294%	55%	44%	126%	337%	640%	202%
Alt 1a	% Flow Added	447%	195%	273%	279%	311%	238%	233%	91%	60%	151%	353%	632%	191%
Alt 1c	% Flow Added	447%	195%	274%	279%	312%	238%	232%	91%	60%	151%	357%	636%	192%
Alt 8a	% Flow Added	446%	195%	274%	282%	313%	239%	230%	90%	59%	150%	350%	628%	190%
Alt 10a	% Flow Added	446%	195%	274%	282%	313%	239%	231%	91%	59%	150%	350%	629%	190%
Alt 13a	% Flow Added	445%	194%	273%	278%	312%	237%	231%	91%	59%	151%	351%	630%	191%
Dry Year Average (1954, 1955, 1963, 1977, 1981)														
Native Flows		31.7	25.7	18.9	13.7	14.1	15.1	33.0	71.9	87.8	60.1	59.3	45.8	39.8
Roberts Tunnel Delivery														
Current	Delivery	175.3	75.1	79.4	76.2	89.4	74.8	225.7	194.9	249.6	277.2	258.1	252.1	169.0
Full Use	Delivery	245.6	107.2	115.0	90.2	100.3	90.6	246.2	247.6	348.7	353.8	328.9	300.3	214.5
No Act	Delivery	267.2	113.2	124.9	98.6	111.0	101.4	257.8	252.9	365.5	369.9	326.1	279.2	222.3
Alt 1a	Delivery	250.0	76.1	85.3	63.3	75.1	60.4	235.4	301.8	418.3	426.9	343.4	281.5	218.1
Alt 1c	Delivery	249.4	76.0	85.3	63.3	75.4	60.4	235.1	301.5	417.3	425.2	343.0	281.2	217.8
Alt 8a	Delivery	250.9	76.3	85.3	63.6	75.3	60.5	234.7	301.5	417.7	426.5	343.5	282.4	218.2
Alt 10a	Delivery	250.0	76.6	85.3	63.3	75.0	60.7	235.1	301.9	418.0	425.7	343.2	281.9	218.0
Alt 13a	Delivery	247.3	76.2	85.3	63.3	75.6	60.7	235.1	302.7	418.7	426.3	344.2	282.3	218.1
Percent Change from Natural Flow														
% Added to Native Flow														
Current	% Flow Added	553%	293%	419%	555%	635%	497%	684%	271%	284%	461%	435%	550%	425%
Full Use	% Flow Added	775%	418%	607%	657%	713%	601%	746%	344%	397%	589%	554%	656%	540%
No Act	% Flow Added	844%	441%	660%	718%	788%	673%	781%	351%	416%	616%	550%	610%	559%
Alt 1a	% Flow Added	789%	296%	450%	461%	534%	401%	713%	419%	476%	711%	579%	615%	549%
Alt 1c	% Flow Added	787%	296%	450%	461%	535%	401%	712%	419%	475%	708%	578%	614%	548%
Alt 8a	% Flow Added	792%	297%	450%	463%	535%	401%	711%	419%	476%	710%	579%	617%	549%
Alt 10a	% Flow Added	789%	298%	450%	461%	533%	403%	712%	420%	476%	708%	578%	616%	548%
Alt 13a	% Flow Added	781%	297%	450%	461%	537%	403%	713%	421%	477%	710%	580%	616%	549%
Wet Year Average (1952, 1962, 1983, 1984, 1986)														
Native Flows		47.5	34.6	27.8	24.3	20.7	19.0	38.2	148.2	317.6	183.1	100.3	59.7	85.1
Roberts Tunnel Delivery														
Current	Delivery	77.8	42.9	53.2	46.8	63.6	43.1	23.8	16.1	30.2	53.2	53.5	99.6	50.3
Full Use	Delivery	129.3	62.8	69.7	58.1	78.1	50.9	30.2	18.8	33.0	64.5	134.9	196.3	77.2
No Act	Delivery	152.6	71.3	83.2	72.9	88.2	59.6	34.4	25.8	36.7	70.4	138.3	220.5	87.9
Alt 1a	Delivery	142.3	40.7	43.9	28.1	41.3	29.9	21.1	33.5	35.4	70.6	167.4	224.8	73.2
Alt 1c	Delivery	141.6	41.3	44.0	28.0	41.5	29.9	19.4	33.8	35.5	70.7	170.2	229.2	73.8
Alt 8a	Delivery	139.7	41.0	43.9	28.0	41.6	30.0	21.0	33.4	35.4	69.9	168.0	224.0	73.0
Alt 10a	Delivery	139.5	41.0	43.9	28.0	41.6	29.9	21.5	33.3	35.4	70.8	166.9	225.8	73.1
Alt 13a	Delivery	142.1	40.6	43.9	28.1	41.4	28.1	21.2	33.3	35.4	70.1	166.1	226.8	73.1
Percent Change from Natural Flow														
% Added to Natural Flow														
Current	% Flow Added	164%	124%	191%	192%	308%	226%	62%	11%	10%	29%	53%	167%	59%
Full Use	% Flow Added	272%	181%	250%	239%	378%	267%	79%	13%	10%	35%	134%	329%	91%
No Act	% Flow Added	321%	206%	299%	300%	427%	313%	90%	17%	12%	38%	138%	369%	103%
Alt 1a	% Flow Added	300%	118%	158%	115%	200%	157%	55%	23%	11%	39%	167%	376%	86%
Alt 1c	% Flow Added	298%	120%	158%	115%	200%	157%	51%	23%	11%	39%	170%	384%	87%
Alt 8a	% Flow Added	294%	119%	158%	115%	201%	158%	55%	23%	11%	38%	167%	375%	86%
Alt 10a	% Flow Added	294%	119%	158%	115%	201%	157%	56%	22%	11%	39%	166%	378%	86%
Alt 13a	% Flow Added	299%	117%	158%	115%	200%	148%	56%	22%	11%	38%	166%	380%	86%

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Appendix H-13
Grand County and Summit County Water Shortages

Grand County

- Table H-13.1 Hot Sulphur Springs Total Shortage (AF)
- Table H-13.2 Town of Kremmling Total Shortage (AF)
- Table H-13.3 Winter Park Recreation and Water and Sanitation District Total Shortage (AF)
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- Table H-13.5 Winter Park West Water and Sanitation District Total Shortage (AF)
- Table H-13.6 Town of Fraser Total Shortage (AF)
- Table H-13.7 Silver Creek Resort Total Shortage (AF)
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Summit County

- Table H-13.9 Arapahoe Basin Snowmaking Total Shortage (AF)
- Table H-13.10 Keystone Montezuma Domestic Total Shortage (AF)
- Table H-13.11 Keystone Snake River Snowmaking Total Shortage (AF)
- Table H-13.12 Keystone Gulch Total Shortage (AF)
- Table H-13.13 Snake River Water District Total Shortage (AF)
- Table H-13.14 East Dillon Water District Total Shortage (AF)
- Table H-13.15 Town of Breckenridge Total Shortage (AF)
- Table H-13.16 Breckenridge Golf Course Total Shortage (AF)
- Table H-13.17 Breckenridge Ski Resort Total Shortage (AF)
- Table H-13.18 Copper Mountain Water and Sanitation District Total Shortage (AF)

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Table H-13.1. Hot Sulphur Springs Total Shortage (AF)

WATER YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1947	0	0	0	0	0	83	79	0	0	41	0	0	203
1948	0	0	0	0	0	75	0	0	0	41	0	0	116
1949	0	0	0	0	0	68	0	0	0	41	0	0	108
1950	0	0	0	0	0	0	0	0	0	41	0	0	41
1951	0	0	0	0	0	0	0	0	0	41	0	0	41
1952	0	0	0	0	0	79	50	0	0	41	0	0	170
1953	0	0	0	0	0	0	0	0	0	41	0	0	41
1954	0	0	0	0	0	0	0	0	0	41	0	0	41
1955	0	0	0	0	0	0	0	0	0	41	0	0	41
1956	0	0	0	0	0	0	0	0	0	41	0	0	41
1957	0	0	0	0	0	0	0	0	0	41	0	0	41
1958	0	0	0	0	0	75	0	0	0	41	0	0	116
1959	0	0	0	0	0	0	0	0	0	41	0	0	41
1960	0	0	0	0	0	0	0	0	0	41	0	0	41
1961	0	0	0	0	0	0	0	0	0	41	0	0	41
1962	0	0	0	0	0	8	0	0	0	41	0	0	48
1963	0	0	0	0	0	0	0	5	0	41	0	0	46
1964	0	0	0	0	0	0	0	0	0	41	0	0	41
1965	0	0	0	0	0	0	0	0	0	41	0	0	41
1966	0	0	0	0	0	0	0	10	0	41	0	0	51
1967	0	0	0	0	0	0	0	0	0	41	0	0	41
1968	0	0	0	0	0	0	0	0	0	41	0	0	41
1969	0	0	0	0	0	0	0	0	0	41	0	0	41
1970	0	0	0	0	0	79	75	0	0	41	0	0	195
1971	0	0	0	0	0	26	33	0	0	41	0	0	100
1972	0	0	0	0	0	34	0	0	0	41	0	0	75
1973	0	0	0	0	0	0	0	0	0	41	0	0	41
1974	0	0	0	0	0	0	75	0	0	41	0	0	116
1975	0	0	0	0	0	75	83	15	0	41	0	0	214
1976	0	0	0	0	0	0	0	0	0	41	0	0	41
1977	0	0	0	0	0	0	0	0	0	41	0	0	41
1978	0	0	0	0	0	0	0	0	0	41	0	0	41
1979	0	0	0	0	0	0	0	0	0	41	0	0	41
1980	0	0	0	0	0	0	0	0	0	41	0	0	41
1981	0	0	0	0	0	0	0	0	0	41	0	0	41
1982	0	0	0	0	0	0	0	0	0	41	0	0	41
1983	0	0	0	0	0	45	100	15	0	41	0	0	201
1984	0	0	0	0	0	15	71	5	0	41	0	0	132
1985	0	3	0	0	0	26	0	0	0	41	0	0	70
1986	0	0	0	0	0	0	0	0	0	41	0	0	41
1987	0	0	0	0	0	0	0	0	0	41	0	0	41
1988	0	0	0	0	0	0	0	0	0	41	0	0	41
1989	0	0	0	0	0	0	0	0	0	54	0	0	54
1990	0	0	0	0	0	0	0	0	0	45	0	0	45
1991	0	0	0	0	0	0	0	0	0	41	0	0	41
Average:	0	0	0	0	0	15	13	1	0	41	0	0	70
Minimum:	0	0	0	0	0	0	0	0	0	41	0	0	41
Maximum:	0	3	0	0	0	83	100	15	0	54	0	0	214

Note:
Comparison is made between Current Conditions (2006) (no shortages) and Full Use of the Existing System, which includes other reasonably foreseeable future actions.

Table H-13.2. Town of Kremmling Total Shortage (AF)

WATER YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1947	6	0	0	0	0	50	44	0	0	0	0	0	100
1948	6	0	0	0	0	46	6	0	0	0	0	0	58
1949	6	0	0	0	0	42	6	0	0	0	0	0	54
1950	6	0	0	0	0	6	6	0	0	0	0	0	18
1951	6	0	0	0	0	6	6	0	0	0	0	0	18
1952	6	0	0	0	0	48	30	0	0	0	0	0	84
1953	6	0	0	0	0	6	6	0	0	0	0	0	18
1954	6	0	0	0	0	6	6	0	0	0	0	0	18
1955	6	0	0	0	0	6	6	0	0	0	0	0	18
1956	6	0	0	0	0	6	6	0	0	0	0	0	18
1957	6	0	0	0	0	6	6	0	0	0	0	0	18
1958	6	0	0	0	0	46	6	0	0	0	0	0	58
1959	6	0	0	0	0	6	6	0	0	0	0	0	18
1960	6	0	0	0	0	6	6	0	0	0	0	0	18
1961	6	0	0	0	0	6	6	0	0	0	0	0	18
1962	6	0	0	0	0	12	6	0	0	0	0	0	24
1963	6	0	0	0	0	6	6	0	0	0	0	0	18
1964	6	0	0	0	0	6	6	0	0	0	0	0	18
1965	6	0	0	0	0	6	6	0	0	0	0	0	18
1966	6	0	0	0	0	6	6	0	0	0	0	0	18
1967	6	0	0	0	0	6	6	0	0	0	0	0	18
1968	6	0	0	0	0	6	6	0	0	0	0	0	18
1969	6	0	0	0	0	6	6	0	0	0	0	0	18
1970	6	0	0	0	0	48	42	0	0	0	0	0	96
1971	6	0	0	0	0	20	22	0	0	0	0	0	48
1972	6	0	0	0	0	28	6	0	0	0	0	0	40
1973	6	0	0	0	0	6	6	0	0	0	0	0	18
1974	6	0	0	0	0	6	42	0	0	0	0	0	54
1975	6	0	0	0	0	46	46	0	0	0	0	0	98
1976	6	0	0	0	0	6	6	0	0	0	0	0	18
1977	6	0	0	0	0	6	6	0	0	0	0	0	18
1978	6	0	0	0	0	6	6	0	0	0	0	0	18
1979	6	0	0	0	0	6	6	0	0	0	0	0	18
1980	6	0	0	0	0	6	6	0	0	0	0	0	18
1981	6	0	0	0	0	6	6	0	0	0	0	0	18
1982	6	0	0	0	0	6	6	0	0	0	0	0	18
1983	6	0	0	0	0	32	54	0	0	0	0	0	92
1984	6	0	0	0	0	20	40	0	0	0	0	0	66
1985	6	0	0	0	0	26	6	0	0	0	0	0	38
1986	6	0	0	0	0	6	6	0	0	0	0	0	18
1987	6	0	0	0	0	6	6	0	0	0	0	0	18
1988	6	0	0	0	0	6	6	0	0	0	0	0	18
1989	6	0	0	0	0	6	6	0	0	0	0	0	18
1990	6	0	0	0	0	6	6	0	0	0	0	0	18
1991	6	0	0	0	0	6	6	0	0	0	0	0	18
Average:	6	0	0	0	0	15	12	0	0	0	0	0	33
Minimum:	6	0	0	0	0	6	6	0	0	0	0	0	18
Maximum:	6	0	0	0	0	50	54	0	0	0	0	0	100

Note:
Comparison is made between Current Conditions (2006) (no shortages) and Full Use of the Existing System, which includes other reasonably foreseeable future actions.

Table H-13.3. Winter Park Recreation and Water and Sanitation District Total Shortage (AF)

WATER YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1947	0	0	0	0	4	0	0	0	0	0	0	0	4
1948	0	0	0	0	6	0	0	0	0	0	2	0	8
1949	0	0	0	0	6	0	0	0	0	0	0	0	6
1950	0	0	0	0	6	0	0	0	0	0	0	0	6
1951	0	0	0	0	6	0	0	0	0	0	0	0	6
1952	0	0	0	0	6	0	0	0	0	0	2	0	8
1953	0	0	0	0	6	0	0	0	0	0	0	0	6
1954	0	0	0	0	6	0	0	0	0	0	0	0	6
1955	0	0	0	0	6	0	0	0	0	0	0	0	6
1956	0	0	0	0	6	0	0	0	0	0	2	0	8
1957	0	0	0	0	6	0	0	0	0	0	0	0	6
1958	0	0	0	0	6	0	0	0	0	0	0	0	6
1959	0	0	0	0	6	0	0	0	0	0	0	0	6
1960	0	0	0	0	6	0	0	0	0	0	2	2	10
1961	0	0	0	0	6	0	0	0	0	0	0	0	6
1962	0	0	0	0	6	0	0	0	0	0	0	0	6
1963	0	0	0	0	6	0	0	0	0	0	0	0	6
1964	0	0	0	0	6	0	0	0	0	0	2	0	8
1965	0	0	0	0	6	0	0	0	0	0	0	0	6
1966	0	0	0	0	6	0	0	0	0	0	0	0	6
1967	0	0	0	0	6	0	0	0	0	0	0	0	6
1968	0	0	0	0	6	0	0	0	0	0	2	0	8
1969	0	0	0	0	6	0	0	0	0	0	0	0	6
1970	0	0	0	0	6	0	0	0	0	0	0	0	6
1971	0	0	0	0	6	0	0	0	0	0	0	0	6
1972	0	0	0	0	6	0	0	0	0	0	2	0	8
1973	0	0	0	0	6	0	0	0	0	0	0	0	6
1974	0	0	0	0	6	0	0	0	0	0	0	0	6
1975	0	0	0	0	6	0	0	0	0	0	0	0	6
1976	0	0	0	0	6	0	0	0	0	0	2	0	8
1977	0	0	0	0	6	0	0	0	0	0	0	0	6
1978	0	0	0	0	6	0	0	0	0	0	0	0	6
1979	0	0	0	0	6	0	0	0	0	0	0	0	6
1980	0	0	0	0	6	0	0	0	0	0	2	0	8
1981	0	0	0	0	6	0	0	0	0	0	0	0	6
1982	0	0	0	0	6	0	0	0	0	0	0	0	6
1983	0	0	0	0	6	0	0	0	0	0	0	0	6
1984	0	0	0	0	6	0	0	0	0	0	2	0	8
1985	0	0	0	0	6	0	0	0	0	0	0	0	6
1986	0	0	0	0	6	0	0	0	0	0	0	0	6
1987	0	0	0	0	6	0	0	0	0	0	0	0	6
1988	0	0	0	0	6	0	0	0	0	0	2	0	8
1989	0	0	0	0	6	0	0	0	0	0	0	0	6
1990	0	0	0	0	6	0	0	0	0	0	0	0	6
1991	0	0	0	0	6	0	0	0	0	0	0	0	6
Average:	0	0	0	0	6	0	0	0	0	0	1	0	6
Minimum:	0	0	0	0	4	0	0	0	0	0	0	0	4
Maximum:	0	0	0	0	6	0	0	0	0	0	2	2	10

Note:
Comparison is made between Current Conditions (2006) (no shortages) and Full Use of the Existing System, which includes other reasonably foreseeable future actions.

Table H-13.4. Grand County Water and Sanitation District Total Shortage (AF)

WATER YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1947	0	0	0	0	1	70	21	0	0	0	0	0	93
1948	0	0	0	0	2	55	1	0	0	0	0	0	58
1949	0	0	0	0	18	155	33	0	0	0	0	0	206
1950	0	0	0	0	0	69	2	0	0	0	0	0	72
1951	0	5	0	0	11	57	104	3	0	0	0	0	181
1952	0	0	0	0	0	57	35	0	0	0	0	0	92
1953	0	0	0	0	0	31	10	10	0	0	0	0	50
1954	0	0	3	42	63	170	14	0	8	13	0	0	313
1955	0	4	40	24	32	103	57	0	39	86	0	0	386
1956	0	31	71	100	108	143	52	0	34	197	0	0	736
1957	0	11	3	69	133	131	121	11	0	0	0	0	478
1958	0	0	8	104	117	210	182	36	0	4	0	5	665
1959	9	0	0	0	0	35	98	57	0	0	0	0	198
1960	0	0	0	20	86	107	73	37	0	0	0	0	323
1961	17	6	2	10	40	116	49	41	0	0	0	0	280
1962	0	0	0	56	123	264	70	21	0	3	0	0	536
1963	0	0	0	3	30	99	20	0	3	37	0	0	192
1964	0	0	8	49	72	158	72	4	0	38	0	0	401
1965	0	1	7	82	111	195	114	0	3	0	0	0	513
1966	5	9	0	0	0	57	41	50	0	0	0	0	162
1967	0	0	0	1	3	62	0	7	0	0	0	0	72
1968	0	0	0	2	19	87	46	50	0	0	0	0	203
1969	0	0	0	0	2	110	29	6	0	1	0	0	148
1970	0	0	0	14	27	70	69	13	0	0	0	0	193
1971	0	0	6	87	104	172	69	0	0	9	0	0	447
1972	0	0	3	41	56	157	21	0	0	0	0	0	277
1973	0	0	9	90	99	180	170	15	0	0	0	0	563
1974	0	1	6	84	104	197	133	0	0	0	0	0	524
1975	0	0	6	83	102	191	171	39	0	0	0	0	592
1976	0	0	7	84	127	193	166	6	33	0	0	0	616
1977	0	0	24	112	99	185	120	7	1	0	0	0	549
1978	0	0	6	60	88	188	111	0	1	20	0	0	473
1979	0	0	12	140	141	243	198	38	0	0	0	0	772
1980	0	0	4	78	105	171	118	0	0	4	0	0	481
1981	0	0	3	61	88	171	59	0	0	0	0	0	381
1982	0	0	6	58	74	184	91	0	0	0	0	0	413
1983	0	0	7	86	100	172	109	6	0	0	0	0	480
1984	0	0	6	74	87	202	103	22	0	0	0	0	494
1985	0	0	0	0	0	69	4	0	0	0	0	0	73
1986	0	0	5	73	93	148	77	0	0	0	0	0	396
1987	0	0	6	106	118	207	114	0	0	5	0	0	557
1988	0	0	5	71	92	166	21	0	0	0	0	0	354
1989	0	0	7	84	67	127	32	12	0	1	0	0	328
1990	0	0	0	43	60	137	12	0	0	11	0	0	262
1991	0	0	11	92	106	174	142	1	0	0	0	0	526
Average:	1	2	6	49	65	139	75	11	3	10	0	0	358
Minimum:	0	0	0	0	0	31	0	0	0	0	0	0	50
Maximum:	17	31	71	140	141	264	198	57	39	197	0	5	772

Note:
Comparison is made between Current Conditions (2006) (no shortages) and Full Use of the Existing System, which includes other reasonably foreseeable future actions.

Table H-13.5. Winter Park West Water and Sanitation District Total Shortage (AF)

WATER YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1947	0	0	0	0	0	31	26	0	0	0	0	0	57
1948	0	0	0	0	0	28	0	0	0	0	0	0	28
1949	0	0	0	0	0	25	0	0	0	0	0	0	25
1950	0	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	29	17	0	0	0	0	0	46
1953	0	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	7	0	0	8	15
1955	3	9	34	1	0	0	0	0	0	0	0	5	51
1956	8	14	26	12	0	0	0	0	0	0	0	12	72
1957	33	26	45	0	0	0	0	0	0	0	0	0	104
1958	0	0	0	0	0	28	0	0	0	0	0	0	28
1959	0	0	0	0	0	0	0	0	0	0	0	1	1
1960	0	0	0	0	0	0	0	0	0	0	0	9	9
1961	4	0	0	0	0	0	0	0	0	0	0	0	5
1962	0	0	0	0	0	4	0	0	0	0	0	9	13
1963	0	0	0	0	0	0	0	2	1	0	0	6	9
1964	19	27	38	0	0	0	0	0	0	0	0	8	92
1965	35	34	21	0	0	0	0	0	0	0	0	0	89
1966	0	0	0	0	0	0	0	8	2	0	0	0	10
1967	4	0	0	0	0	0	0	0	0	0	0	0	4
1968	0	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	29	25	0	0	0	0	0	54
1971	0	0	0	0	0	10	11	0	0	0	0	0	21
1972	0	0	0	0	0	15	0	0	0	0	0	0	15
1973	0	0	2	0	0	0	0	0	0	0	0	3	5
1974	0	0	0	0	0	0	25	0	0	0	0	0	25
1975	4	0	0	0	0	28	28	5	0	0	0	10	74
1976	8	0	0	0	0	0	0	0	0	0	0	2	11
1977	3	2	32	0	0	0	0	0	3	0	0	0	40
1978	2	0	0	0	0	0	0	0	0	0	0	9	11
1979	14	34	22	0	0	0	0	0	0	0	0	12	82
1980	11	0	0	0	0	0	0	0	0	0	0	2	14
1981	2	0	0	0	0	0	0	0	1	0	0	11	14
1982	6	0	18	0	0	0	0	0	0	0	0	0	24
1983	0	0	0	0	0	18	33	5	0	0	0	7	63
1984	22	0	0	0	0	10	24	2	0	0	0	0	57
1985	0	2	0	0	0	14	0	0	0	0	0	0	16
1986	0	3	0	0	0	0	0	0	0	0	0	1	4
1987	1	0	0	0	0	0	0	0	0	0	0	0	2
1988	11	3	0	0	0	0	0	0	0	0	0	0	14
1989	2	0	10	0	0	0	0	0	0	2	0	0	14
1990	2	4	23	0	0	0	0	0	0	1	0	3	34
1991	0	8	41	0	0	0	0	0	0	0	0	10	59
Average:	4	4	7	0	0	6	4	0	0	0	0	3	29
Minimum:	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum:	35	34	45	12	0	31	33	8	7	2	0	12	104

Note:
Comparison is made between Current Conditions (2006) (no shortages) and Full Use of the Existing System, which includes other reasonably foreseeable future actions.

Table H-13.6. Town of Fraser Total Shortage (AF)

WATER YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1947	0	31	44	14	23	51	18	0	0	0	0	1	182
1948	1	31	44	14	24	55	0	0	0	0	0	1	170
1949	1	31	44	14	23	55	0	0	0	0	0	1	169
1950	1	31	44	14	24	45	0	0	0	0	0	1	158
1951	1	32	44	14	24	20	0	0	0	0	0	1	134
1952	1	31	44	14	24	51	15	0	0	0	0	1	180
1953	1	31	44	14	23	20	0	0	0	0	0	1	133
1954	1	31	44	20	23	20	0	0	0	0	0	20	158
1955	4	88	112	81	82	57	3	0	0	0	0	1	427
1956	22	77	109	81	78	63	0	0	0	0	0	42	472
1957	119	90	124	80	84	83	6	0	0	0	0	1	586
1958	1	32	44	14	23	57	0	0	0	0	0	1	172
1959	1	31	44	14	23	20	0	0	0	0	0	1	134
1960	1	31	45	39	33	23	0	0	0	0	0	4	175
1961	3	36	87	63	42	20	0	0	0	0	0	1	252
1962	1	31	44	46	46	52	1	0	0	0	0	3	224
1963	1	52	52	58	26	24	0	0	0	0	0	1	213
1964	40	95	112	79	83	86	16	0	0	0	0	1	511
1965	42	95	109	63	47	72	3	0	0	0	0	1	432
1966	1	31	44	14	23	20	0	0	0	0	0	1	133
1967	3	33	44	24	27	21	0	0	0	0	0	1	151
1968	1	33	47	17	25	20	0	0	0	0	0	1	143
1969	1	31	57	14	23	23	0	0	0	0	0	1	150
1970	1	31	58	14	23	46	13	0	0	0	0	1	185
1971	1	31	44	14	23	20	0	0	0	0	0	1	133
1972	7	43	96	46	28	26	0	0	0	0	0	1	246
1973	1	32	88	46	23	20	0	0	0	0	0	2	212
1974	1	31	83	15	23	20	11	0	0	0	0	1	185
1975	1	31	57	15	23	46	22	0	0	0	0	14	208
1976	4	49	55	16	24	20	0	0	0	0	0	4	172
1977	4	44	112	76	57	38	2	0	0	0	0	1	333
1978	4	59	57	18	26	25	0	0	0	0	0	14	203
1979	31	103	113	62	62	63	3	0	0	0	0	33	470
1980	18	32	59	21	42	35	8	0	0	0	0	4	219
1981	1	34	78	69	66	22	5	0	0	0	0	25	300
1982	15	62	104	53	50	26	0	0	0	0	0	1	309
1983	1	31	58	29	23	32	35	0	0	0	0	13	221
1984	57	31	44	17	24	53	15	0	0	0	0	1	243
1985	1	31	52	14	23	20	0	0	0	0	0	1	141
1986	1	52	47	14	23	20	0	0	0	0	0	1	157
1987	6	43	71	29	24	20	4	0	0	0	0	1	196
1988	31	74	95	46	35	31	1	0	0	0	0	1	311
1989	7	54	107	81	64	20	0	0	0	0	0	1	333
1990	21	75	106	80	76	56	0	0	0	0	0	1	414
1991	3	77	112	79	74	49	9	0	0	0	0	23	425
Average:	10	46	69	37	38	37	4	0	0	0	0	5	246
Minimum:	0	31	44	14	23	20	0	0	0	0	0	1	133
Maximum:	119	103	124	81	84	86	35	0	0	0	0	42	586

Note:
Comparison is made between Current Conditions (2006) (no shortages) and Full Use of the Existing System, which includes other reasonably foreseeable future actions.

Table H-13.7. Silver Creek Resort Total Shortage (AF)

WATER YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1947	0	0	19	0	0	0	0	0	0	0	0	0	19
1948	0	0	18	0	0	0	0	0	0	0	0	0	18
1949	0	0	19	0	0	0	0	0	0	0	0	0	19
1950	0	0	19	0	0	0	0	0	0	0	0	0	19
1951	0	0	19	0	0	0	0	0	0	0	0	0	19
1952	0	0	19	0	0	0	0	0	0	0	0	0	19
1953	0	0	19	0	0	0	0	0	0	0	0	0	19
1954	0	0	18	0	0	0	0	0	0	0	0	0	18
1955	0	0	18	0	0	0	0	0	0	0	0	0	18
1956	0	0	18	0	0	0	0	0	0	0	0	0	18
1957	0	0	18	0	0	0	0	0	0	0	0	0	18
1958	0	0	18	0	0	0	0	0	0	0	0	0	18
1959	0	0	18	0	0	0	0	0	0	0	0	0	18
1960	0	0	19	0	0	0	0	0	0	0	0	0	19
1961	0	0	18	0	0	0	0	0	0	0	0	0	18
1962	0	0	19	0	0	0	0	0	0	0	0	0	19
1963	0	0	19	0	0	0	0	0	0	0	0	0	19
1964	0	0	19	0	0	0	0	0	0	0	0	0	19
1965	0	0	19	0	0	0	0	0	0	0	0	0	19
1966	0	0	19	0	0	0	0	0	0	0	0	0	19
1967	0	0	18	0	0	0	0	0	0	0	0	0	18
1968	0	0	19	0	0	0	0	0	0	0	0	0	19
1969	0	0	19	0	0	0	0	0	0	0	0	0	19
1970	0	0	19	0	0	0	0	0	0	0	0	0	19
1971	0	0	19	0	0	0	0	0	0	0	0	0	19
1972	0	0	18	0	0	0	0	0	0	0	0	0	18
1973	0	0	19	0	0	0	0	0	0	0	0	0	19
1974	0	0	19	0	0	0	0	0	0	0	0	0	19
1975	0	0	19	0	0	0	0	0	0	0	0	0	19
1976	0	0	19	0	0	0	0	0	0	0	0	0	19
1977	0	0	18	0	0	0	0	0	0	0	0	0	18
1978	0	0	18	0	0	0	0	0	0	0	0	0	18
1979	0	0	18	0	0	0	0	0	0	0	0	0	18
1980	0	0	19	0	0	0	0	0	0	0	0	0	19
1981	0	0	19	0	0	0	0	0	0	0	0	0	19
1982	0	0	18	0	0	0	0	0	0	0	0	0	18
1983	0	0	18	0	0	0	0	0	0	0	0	0	18
1984	0	0	19	0	0	0	0	0	0	0	0	0	19
1985	0	0	19	0	0	0	0	0	0	0	0	0	19
1986	0	0	19	0	0	0	0	0	0	0	0	0	19
1987	0	0	19	0	0	0	0	0	0	0	0	0	19
1988	0	0	19	0	0	0	0	0	0	0	0	0	19
1989	0	0	18	0	0	0	0	0	0	0	0	0	18
1990	0	0	18	0	0	0	0	0	0	0	0	0	18
1991	0	0	18	0	0	0	0	0	0	0	0	0	18
Average:	0	0	18	0	0	0	0	0	0	0	0	0	18
Minimum:	0	0	18	0	0	0	0	0	0	0	0	0	18
Maximum:	0	0	19	0	0	0	0	0	0	0	0	0	19

Note:
Comparison is made between Current Conditions (2006) (no shortages) and Full Use of the Existing System, which includes other reasonably foreseeable future actions.

Table H-13.8. Town of Granby Total Shortage (AF)

WATER YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1947	0	0	0	0	0	22	15	0	0	0	0	0	37
1948	0	0	0	0	0	20	0	0	0	0	0	0	20
1949	0	0	0	0	0	18	0	0	0	0	0	0	18
1950	0	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	21	10	0	0	0	0	0	30
1953	0	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	20	0	0	0	0	0	0	20
1959	0	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	2	0	0	0	0	0	0	2
1963	0	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	21	14	0	0	0	0	0	35
1971	0	0	0	0	0	7	6	0	0	0	0	0	13
1972	0	0	0	0	0	9	0	0	0	0	0	0	9
1973	0	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	14	0	0	0	0	0	14
1975	0	0	0	0	0	20	16	0	0	0	0	0	36
1976	0	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	12	19	0	0	0	0	0	31
1984	0	0	0	0	0	5	14	0	0	0	0	0	19
1985	0	0	0	0	0	6	0	0	0	0	0	0	6
1986	0	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0	0
Average:	0	0	0	0	0	4	2	0	0	0	0	0	6
Minimum:	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum:	0	0	0	0	0	22	19	0	0	0	0	0	37

Note:
Comparison is made between Current Conditions (2006) (no shortages) and Full Use of the Existing System, which includes other reasonably foreseeable future actions.

Table H-13.9. Arapahoe Basin Snowmaking Total Shortage (AF)

WATER YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1947	0	0	7	58	24	2	0	0	0	0	0	0	91
1948	0	0	7	8	3	0	0	0	0	0	0	0	19
1949	0	0	8	33	27	1	0	0	0	0	0	0	68
1950	0	0	16	53	1	0	0	0	0	0	0	0	70
1951	0	0	13	41	9	0	0	0	0	0	0	0	62
1952	0	0	37	72	7	0	0	0	0	0	0	0	116
1953	0	0	10	10	0	0	0	0	0	0	0	0	20
1954	0	0	14	23	1	2	0	0	0	0	0	0	40
1955	0	0	14	58	28	10	0	0	0	0	0	0	109
1956	0	0	7	18	1	0	0	0	0	0	0	0	26
1957	0	0	7	11	7	0	0	0	0	0	0	0	25
1958	0	0	7	24	6	1	0	0	0	0	0	0	39
1959	0	1	13	17	7	0	0	0	0	0	0	0	38
1960	0	0	15	19	4	1	0	0	0	0	0	0	39
1961	0	0	18	58	26	9	0	0	0	0	0	0	112
1962	0	0	7	7	0	0	0	0	0	0	0	0	14
1963	0	0	26	69	22	6	0	0	0	0	0	0	122
1964	0	4	38	51	29	10	0	0	0	0	0	0	131
1965	0	15	28	27	0	6	0	0	0	0	0	0	75
1966	0	0	6	15	3	2	0	0	0	0	0	0	25
1967	0	0	53	68	28	6	0	0	0	0	0	0	154
1968	0	0	16	35	10	3	0	0	0	0	0	0	63
1969	0	2	20	65	23	4	0	0	0	0	0	0	114
1970	0	0	10	22	8	2	0	0	0	0	0	0	42
1971	0	0	7	9	5	2	0	0	0	0	0	0	24
1972	0	2	8	28	0	0	0	0	0	0	0	0	39
1973	0	0	13	21	20	10	0	0	0	0	0	0	64
1974	0	0	25	52	13	4	0	0	0	0	0	0	93
1975	0	0	35	55	21	5	0	0	0	0	0	0	115
1976	0	0	16	29	9	2	0	0	0	0	0	0	56
1977	0	0	27	46	8	2	0	0	0	0	0	1	84
1978	0	7	57	67	27	7	0	0	0	0	0	0	165
1979	0	3	32	49	18	0	0	0	0	0	0	0	102
1980	0	0	7	16	0	1	0	0	0	0	0	0	24
1981	0	0	10	23	16	3	0	0	0	0	0	0	52
1982	0	0	20	35	8	0	0	0	0	0	0	0	63
1983	0	0	7	10	0	0	0	0	0	0	0	0	17
1984	0	0	7	10	5	0	0	0	0	0	0	0	21
1985	0	0	1	3	0	0	0	0	0	0	0	0	3
1986	0	0	3	15	0	0	0	0	0	0	0	0	18
1987	0	0	4	7	0	0	0	0	0	0	0	0	11
1988	1	0	9	32	9	0	0	0	0	0	0	0	51
1989	0	0	12	23	6	0	0	0	0	0	0	0	41
1990	0	0	7	11	8	0	0	0	0	0	0	0	26
1991	0	0	10	7	0	0	0	0	0	0	0	0	17
Average:	0	1	16	31	10	2	0	0	0	0	0	0	60
Minimum:	0	0	1	3	0	0	0	0	0	0	0	0	3
Maximum:	1	15	57	72	29	10	0	0	0	0	0	1	165

Note:
Comparison is made between Current Conditions (2006) and Full Use of the Existing System, which includes other reasonably foreseeable future actions.

Table H-13.10. Keystone Montezuma Domestic Total Shortage (AF)

WATER YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1947	0	0	0	0	0	0	2	0	0	0	0	0	2
1948	0	0	0	0	0	0	1	0	0	0	0	0	1
1949	0	0	0	0	0	0	1	0	0	0	0	0	1
1950	0	0	0	0	0	0	1	0	0	0	0	0	1
1951	0	0	0	0	0	0	2	0	0	0	0	0	2
1952	0	0	0	0	0	0	2	0	0	0	0	0	2
1953	0	0	0	0	0	0	4	0	0	0	0	0	4
1954	0	0	0	0	0	0	2	0	0	0	0	0	2
1955	0	0	0	2	6	6	2	0	0	0	0	0	15
1956	0	0	0	0	5	6	2	0	0	0	0	0	12
1957	0	0	0	0	0	0	3	0	0	0	0	0	3
1958	0	0	0	0	0	0	2	0	0	0	0	0	2
1959	0	0	0	0	0	0	2	0	0	0	0	0	2
1960	0	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	2	5	0	0	0	0	0	7
1962	0	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	5	0	0	2	0	0	0	0	0	6
1964	0	0	0	0	4	6	4	0	0	0	0	0	14
1965	0	0	0	0	0	6	3	0	0	0	0	0	10
1966	0	0	0	0	0	0	1	0	0	0	0	0	1
1967	0	0	2	3	4	6	1	0	0	0	0	0	16
1968	0	0	1	0	3	6	5	0	0	0	0	0	15
1969	0	0	1	2	1	1	1	0	0	0	0	0	5
1970	0	0	0	0	0	1	2	0	0	0	0	0	3
1971	0	0	0	0	0	0	0	0	0	0	0	0	1
1972	0	0	0	0	0	0	1	0	0	0	0	0	1
1973	0	0	1	0	1	1	4	0	0	0	0	0	7
1974	0	0	0	0	1	1	2	0	0	0	0	0	4
1975	0	0	0	0	1	1	2	0	0	0	0	0	4
1976	0	0	0	0	2	1	1	0	0	0	0	0	4
1977	0	0	2	1	1	2	3	0	0	0	0	0	8
1978	0	0	0	0	4	6	0	0	0	0	0	0	10
1979	0	0	0	0	0	0	2	0	0	0	0	0	3
1980	0	0	0	0	0	0	3	0	0	0	0	0	4
1981	0	0	0	1	2	2	3	0	0	0	0	0	8
1982	0	0	1	2	2	6	3	0	0	0	0	0	14
1983	0	0	0	0	0	0	4	0	0	0	0	0	4
1984	0	0	0	0	1	0	1	0	0	0	0	0	3
1985	0	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	2	0	0	0	0	0	2
1988	0	0	0	0	0	0	1	0	0	0	0	0	1
1989	0	0	0	1	1	1	1	0	0	0	0	0	4
1990	0	0	0	0	5	6	3	0	0	0	0	0	14
1991	0	0	0	0	4	6	3	0	0	0	0	0	13
Average:	0	0	0	0	1	2	2	0	0	0	0	0	5
Minimum:	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum:	0	0	2	5	6	6	5	0	0	0	0	0	16

Note:
Comparison is made between Current Conditions (2006) (no shortages) and Full Use of the Existing System, which includes other reasonably foreseeable future actions.

Table H-13.11. Keystone Snake River Snowmaking Total Shortage (AF)

WATER YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1947	0	0	236	3	10	0	0	0	0	0	0	0	249
1948	0	0	0	0	8	0	0	0	0	0	0	0	8
1949	0	0	175	0	11	0	0	0	0	0	0	0	185
1950	0	0	212	0	0	0	0	0	0	0	0	0	212
1951	0	0	195	2	0	0	0	0	0	0	0	0	197
1952	0	0	85	0	0	0	0	0	0	0	0	0	85
1953	0	32	95	0	0	0	0	0	0	0	0	0	127
1954	0	50	147	0	0	0	0	0	0	0	0	0	197
1955	0	11	36	0	11	0	0	0	0	0	0	0	58
1956	0	0	58	0	0	0	0	0	0	0	0	0	58
1957	0	2	12	0	0	0	0	0	0	0	0	0	14
1958	0	0	0	0	7	0	0	0	0	0	0	0	7
1959	7	64	105	0	0	0	0	0	0	0	0	0	177
1960	0	0	129	0	1	0	0	0	0	0	0	0	130
1961	0	18	168	12	11	0	0	0	0	0	0	0	208
1962	0	0	0	0	7	0	0	0	0	0	0	0	7
1963	0	61	253	18	7	0	0	0	0	0	0	0	339
1964	0	58	369	11	11	0	0	0	0	0	0	0	449
1965	0	253	263	1	0	0	0	0	0	0	0	0	517
1966	0	0	4	0	4	0	0	0	0	0	0	0	7
1967	3	106	379	19	11	0	0	0	0	0	0	0	518
1968	0	32	217	2	2	0	0	0	0	0	0	0	252
1969	0	44	238	20	8	0	0	0	0	0	0	0	309
1970	0	0	114	0	1	0	0	0	0	0	0	0	115
1971	0	0	8	1	1	0	0	0	0	0	0	0	10
1972	0	48	145	2	0	0	0	0	0	0	0	0	194
1973	0	0	120	2	7	0	0	0	0	0	0	0	128
1974	0	40	259	1	2	0	0	0	0	0	0	0	303
1975	0	18	283	14	7	0	0	0	0	0	0	0	323
1976	0	27	218	4	4	0	0	0	0	0	0	0	254
1977	0	11	201	4	2	0	0	0	0	0	0	1	219
1978	0	239	359	25	11	0	0	0	0	0	0	0	634
1979	0	129	289	5	5	0	0	0	0	0	0	0	428
1980	0	0	94	2	0	0	0	0	0	0	0	0	96
1981	0	48	107	6	6	0	0	0	0	0	0	0	167
1982	0	37	309	9	3	0	0	0	0	0	0	0	358
1983	0	0	0	1	7	0	0	0	0	0	0	0	7
1984	7	0	68	1	2	0	0	0	0	0	0	0	78
1985	0	31	0	0	0	0	0	0	0	0	0	0	31
1986	0	0	21	0	0	0	0	0	0	0	0	0	21
1987	0	0	39	1	0	0	0	0	0	0	0	0	40
1988	7	0	50	0	0	0	0	0	0	0	0	0	58
1989	7	19	89	5	4	0	0	0	0	0	0	0	123
1990	0	74	29	1	2	0	0	0	0	0	0	0	106
1991	0	2	135	0	0	0	0	0	0	0	0	0	137
Average:	1	32	140	4	4	0	0	0	0	0	0	0	181
Minimum:	0	0	0	0	0	0	0	0	0	0	0	0	7
Maximum:	7	253	379	25	11	0	0	0	0	0	0	1	634

Note:
Comparison is made between Current Conditions (2006) and Full Use of the Existing System, which includes other reasonably foreseeable future actions.

Table H-13.12. Keystone Gulch Total Shortage (AF)

WATER YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1947	0	0	0	4	0	0	4	0	0	0	0	0	8
1948	0	0	0	0	0	0	5	0	0	0	0	0	5
1949	0	0	0	0	0	0	5	0	0	0	0	0	5
1950	0	0	0	0	0	0	4	0	0	0	0	0	4
1951	0	0	0	0	0	0	3	0	0	0	0	0	3
1952	0	0	0	0	0	0	6	0	0	0	0	0	6
1953	0	0	0	0	0	0	2	0	0	0	0	0	2
1954	0	1	0	0	0	0	3	0	0	0	0	0	5
1955	0	0	0	0	2	7	4	0	0	0	0	0	13
1956	0	0	0	0	0	0	4	0	0	0	0	0	4
1957	0	0	0	0	0	1	3	0	0	0	0	0	3
1958	0	0	0	0	0	0	3	0	0	0	0	0	3
1959	0	0	0	0	0	0	4	0	0	0	0	0	4
1960	0	0	0	0	0	0	6	0	0	0	0	0	6
1961	0	0	0	0	0	12	1	0	0	0	0	0	13
1962	0	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	3	0	0	0	0	0	4
1964	0	0	7	5	2	5	3	0	0	0	0	0	21
1965	0	0	2	0	0	0	3	0	0	0	0	0	5
1966	0	0	0	0	0	1	4	0	0	0	0	0	5
1967	0	1	7	5	5	7	5	0	0	0	0	0	29
1968	0	0	4	1	2	9	1	0	0	0	0	0	17
1969	0	1	4	4	2	5	5	0	0	0	0	0	22
1970	0	0	0	0	1	2	6	0	0	0	0	0	9
1971	0	0	1	0	1	2	6	0	0	0	0	0	10
1972	0	1	0	1	0	1	6	0	0	0	0	0	8
1973	0	0	4	1	2	5	3	0	0	0	0	0	15
1974	0	0	3	0	1	4	4	0	0	0	0	0	13
1975	0	0	1	1	3	3	4	0	0	0	0	0	12
1976	0	1	2	2	4	4	5	0	0	0	0	0	18
1977	0	0	5	2	2	6	3	0	0	1	0	0	20
1978	0	0	1	1	1	1	6	0	0	0	0	0	9
1979	0	1	2	0	0	0	3	0	0	0	0	0	6
1980	0	0	1	1	0	2	6	0	0	0	0	0	10
1981	0	0	1	3	6	9	2	0	0	0	0	0	22
1982	0	1	7	5	3	1	3	0	0	0	0	0	19
1983	0	0	0	0	0	0	2	0	0	0	0	0	3
1984	0	0	3	0	2	0	6	0	0	0	0	0	11
1985	0	0	0	0	0	1	3	0	0	0	0	0	4
1986	0	0	0	0	0	0	6	0	0	0	0	0	6
1987	0	0	1	0	0	1	4	0	0	0	0	0	6
1988	0	0	1	0	0	0	5	0	0	0	0	0	7
1989	0	0	4	2	4	2	5	0	0	0	0	0	18
1990	0	1	0	0	0	1	2	0	0	0	0	0	5
1991	0	0	4	0	0	0	2	0	0	0	0	0	6
Average:	0	0	1	1	1	2	4	0	0	0	0	0	10
Minimum:	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum:	0	1	7	5	6	12	6	0	0	1	0	0	29

Note:
Comparison is made between Current Conditions (2006) (no shortages) and Full Use of the Existing System, which includes other reasonably foreseeable future actions.

Table H-13.13. Snake River Water District Total Shortage (AF)

WATER YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1947	0	0	0	0	3	2	0	0	0	0	0	0	5
1948	0	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	28	2	0	0	0	0	0	0	29
1950	0	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	2	0	0	0	0	0	0	2
1955	0	0	0	0	36	85	9	0	0	0	0	0	129
1956	0	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	2	1	0	0	0	0	0	0	2
1961	0	0	0	6	29	40	0	0	0	0	0	0	74
1962	0	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	135	0	21	0	0	0	0	0	0	156
1964	0	0	0	7	101	79	10	1	0	0	0	0	198
1965	0	0	0	0	0	31	0	0	0	0	0	0	31
1966	0	0	0	0	0	5	0	0	0	0	0	0	5
1967	0	0	0	4	21	14	0	0	0	0	0	0	40
1968	0	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	9	8	12	0	0	0	0	0	0	29
1970	0	0	0	0	0	2	0	0	0	0	0	0	2
1971	0	0	0	0	1	2	0	0	0	0	0	0	3
1972	0	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	46	95	19	0	0	0	0	0	160
1974	0	0	0	0	5	1	0	0	0	0	0	0	6
1975	0	0	0	4	0	1	0	0	0	0	0	0	5
1976	0	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	7	72	70	0	0	0	0	0	0	149
1979	0	0	0	6	22	0	0	0	0	0	0	0	28
1980	0	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	8	0	0	0	0	8
1984	0	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	4	0	0	0	0	0	0	0	4
1991	0	0	0	0	0	0	0	1	0	0	0	0	1
Average:	0	0	0	4	8	10	1	0	0	0	0	0	24
Minimum:	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum:	0	0	0	135	101	95	19	8	0	0	0	0	198

Note:
Comparison is made between Current Conditions (2006) and Full Use of the Existing System, which includes other reasonably foreseeable future actions.

Table H-13.14. East Dillon Water District Total Shortage (AF)

WATER YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1947	0	0	0	0	0	0	0	0	0	0	0	0	0
1948	0	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	0	0	0	0	0	0	0	0
1952	0	0	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0	0
1954	0	0	3	7	5	4	0	0	0	0	5	0	24
1955	0	0	0	0	0	0	2	0	0	0	0	0	2
1956	0	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	7	0	4	0	0	0	0	1	0	11
1964	0	0	0	1	1	0	0	0	0	0	1	0	3
1965	0	0	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	1	5	3	4	0	0	0	0	1	0	14
1967	0	0	0	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	1	1	0	0	0	0	0	0	0	0	2
1978	0	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0	0
Average:	0	0	0	0	0	0	0	0	0	0	0	0	1
Minimum:	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum:	0	0	3	7	5	4	2	0	0	0	5	0	24

Note:
Comparison is made between Current Conditions (2006) (no shortages) and Full Use of the Existing System, which includes other reasonably foreseeable future actions.

Table H-13.15. Town of Breckenridge Total Shortage (AF)

WATER YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1947	0	0	1	0	0	0	0	0	0	0	0	0	1
1948	0	0	1	0	0	0	0	0	0	0	0	0	1
1949	0	0	1	0	0	0	0	0	0	0	0	0	1
1950	0	0	1	0	0	0	0	0	0	0	0	0	1
1951	0	0	1	0	0	0	0	0	0	0	0	0	1
1952	0	0	1	0	0	0	0	0	0	0	0	0	1
1953	0	0	1	0	0	0	0	0	0	0	0	0	1
1954	0	0	1	0	0	0	0	0	0	0	0	0	1
1955	0	0	1	0	0	0	0	0	0	0	0	0	1
1956	0	0	1	0	0	0	0	0	0	0	0	0	1
1957	0	0	1	0	0	0	0	0	0	0	0	0	1
1958	0	0	1	0	0	0	0	0	0	0	0	0	1
1959	0	0	1	0	0	0	0	0	0	0	0	0	1
1960	0	0	1	0	0	0	0	0	0	0	0	0	1
1961	0	0	1	0	0	0	0	0	0	0	0	0	1
1962	0	0	1	0	0	0	0	0	0	0	0	0	1
1963	0	0	1	0	0	0	0	0	0	0	0	0	1
1964	0	0	1	0	0	0	0	0	0	0	0	0	1
1965	0	0	1	0	0	0	0	0	0	0	0	0	1
1966	0	0	1	0	0	0	0	0	0	0	0	0	1
1967	0	0	1	0	0	0	0	0	0	0	0	0	1
1968	0	0	1	0	0	0	0	0	0	0	0	0	1
1969	0	0	1	0	0	0	0	0	0	0	0	0	1
1970	0	0	1	0	0	0	0	0	0	0	0	0	1
1971	0	0	1	0	0	0	0	0	0	0	0	0	1
1972	0	0	1	0	0	0	0	0	0	0	0	0	1
1973	0	0	1	0	0	0	0	0	0	0	0	0	1
1974	0	0	1	0	0	0	0	0	0	0	0	0	1
1975	0	0	1	0	0	0	0	0	0	0	0	0	1
1976	0	0	1	0	0	0	0	0	0	0	0	0	1
1977	0	0	1	0	0	0	0	0	0	0	0	0	1
1978	0	0	1	0	0	63	0	0	0	0	0	0	64
1979	0	0	1	0	0	0	0	0	0	0	0	0	1
1980	0	0	1	0	0	0	0	0	0	0	0	0	1
1981	0	0	1	0	0	0	0	0	0	0	0	0	1
1982	0	0	1	0	0	0	0	0	0	0	0	0	1
1983	0	0	1	0	0	0	0	0	0	0	0	0	1
1984	0	0	1	0	0	0	0	0	0	0	0	0	1
1985	0	0	1	0	0	0	0	0	0	0	0	0	1
1986	0	0	1	0	0	0	0	0	0	0	0	0	1
1987	0	0	1	0	0	0	0	0	0	0	0	0	1
1988	0	0	1	0	0	0	0	0	0	0	0	0	1
1989	0	0	1	0	0	0	0	0	0	0	0	0	1
1990	0	0	1	0	0	0	0	0	0	0	0	0	1
1991	0	0	1	0	0	0	0	0	0	0	0	0	1
Average:	0	0	1	0	0	1	0	0	0	0	0	0	2
Minimum:	0	0	1	0	0	0	0	0	0	0	0	0	1
Maximum:	0	0	1	0	0	63	0	0	0	0	0	0	64

Note:
Comparison is made between Current Conditions (2006) and Full Use of the Existing System, which includes other reasonably foreseeable future actions.

Table H-13.16. Breckenridge Golf Course Total Shortage (AF)

WATER YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1947	1	0	0	0	0	0	0	0	0	0	0	0	1
1948	0	0	0	0	0	0	0	0	0	0	0	0	0
1949	0	0	0	0	0	0	0	0	0	0	0	0	0
1950	0	0	0	0	0	0	0	0	0	0	0	0	0
1951	5	0	0	0	0	0	0	0	0	0	0	0	5
1952	0	0	0	0	0	0	0	0	0	0	0	0	0
1953	1	0	0	0	0	0	0	0	0	0	0	1	2
1954	9	0	0	0	0	0	0	0	0	0	1	8	18
1955	0	0	0	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	0	0	0	0	8	8
1957	9	0	0	0	0	0	0	0	0	0	0	0	9
1958	0	0	0	0	0	0	0	1	0	0	0	0	1
1959	3	0	0	0	0	0	0	0	0	0	0	0	3
1960	0	0	0	0	0	0	0	0	0	0	0	0	0
1961	1	0	0	0	0	0	0	1	0	0	0	0	1
1962	0	0	0	0	0	0	0	0	0	0	0	0	0
1963	2	0	0	0	0	0	0	0	0	0	0	0	2
1964	0	0	0	0	0	0	0	2	0	0	0	0	2
1965	6	0	0	0	0	0	0	0	0	0	0	0	6
1966	0	0	0	0	0	0	0	0	0	0	0	0	0
1967	1	0	0	0	0	0	0	3	0	0	0	0	5
1968	0	0	0	0	0	0	0	1	0	0	0	1	2
1969	2	0	0	0	0	0	0	0	0	0	0	0	2
1970	4	0	0	0	0	0	0	1	0	0	0	0	5
1971	1	0	0	0	0	0	0	0	0	0	0	0	1
1972	3	0	0	0	0	0	0	0	0	0	0	1	4
1973	1	0	0	0	0	0	0	4	0	0	0	0	5
1974	2	0	0	0	0	0	0	0	0	0	0	2	4
1975	0	0	0	0	0	0	0	4	0	0	0	0	4
1976	0	0	0	0	0	0	0	0	0	0	0	1	1
1977	0	0	0	0	0	0	0	0	0	0	0	7	7
1978	9	0	0	0	0	0	0	0	0	0	1	1	11
1979	0	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	1	0	1
1982	0	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	3	0	0	0	0	3
1984	5	0	0	0	0	0	0	1	0	0	0	0	5
1985	0	0	0	0	0	0	0	0	0	0	0	1	1
1986	0	0	0	0	0	0	0	1	0	0	0	0	1
1987	1	0	0	0	0	0	0	0	0	0	0	3	3
1988	0	0	0	0	0	0	0	0	0	0	0	3	3
1989	1	0	0	0	0	0	0	0	0	0	0	0	1
1990	0	0	0	0	0	0	0	0	0	0	1	0	1
1991	0	0	0	0	0	0	0	0	0	0	0	0	0
Average:	1	0	0	0	0	0	0	1	0	0	0	1	3
Minimum:	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum:	9	0	0	0	0	0	0	4	0	0	1	8	18

Note:
Comparison is made between Current Conditions (2006) and Full Use of the Existing System, which includes other reasonably foreseeable future actions.

Table H-13.17. Breckenridge Ski Resort Total Shortage (AF)

WATER YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1947	0	0	0	0	0	0	0	0	0	0	0	0	0
1948	0	0	0	0	0	1	0	0	0	0	0	0	1
1949	0	0	0	0	0	2	0	0	0	0	0	0	2
1950	0	0	0	0	0	1	0	0	0	0	0	0	1
1951	0	0	0	0	0	1	0	0	0	0	0	0	1
1952	0	0	0	0	0	2	0	0	0	0	0	0	2
1953	0	0	0	0	0	6	0	0	0	0	0	0	6
1954	0	0	0	0	0	1	0	0	0	0	0	0	1
1955	0	0	0	0	0	1	0	0	0	0	0	0	1
1956	0	0	0	0	0	3	0	0	0	0	0	0	3
1957	0	0	0	0	0	2	0	0	0	0	0	0	2
1958	0	0	0	0	0	1	0	0	0	0	0	0	1
1959	0	0	0	0	0	2	0	0	0	0	0	0	2
1960	0	0	0	0	0	2	0	0	0	0	0	0	2
1961	0	0	0	0	0	2	0	0	0	0	0	0	2
1962	0	0	0	0	0	1	0	0	0	0	0	0	1
1963	0	0	0	0	0	2	0	0	0	0	0	0	2
1964	0	0	0	0	0	3	0	0	0	0	0	0	3
1965	0	0	0	0	0	2	0	0	0	0	0	0	2
1966	0	0	0	0	0	1	0	0	0	0	0	0	1
1967	0	0	0	0	0	2	0	0	0	0	0	0	2
1968	0	0	0	0	0	2	0	0	0	0	0	0	2
1969	0	0	0	0	0	2	0	0	0	0	0	0	2
1970	0	0	0	0	0	1	0	0	0	0	0	0	1
1971	0	0	0	0	0	1	0	0	0	0	0	0	1
1972	0	0	0	0	0	2	0	0	0	0	0	0	2
1973	0	0	0	0	0	2	0	0	0	0	0	0	2
1974	0	0	0	0	0	1	0	0	0	0	0	0	1
1975	0	0	0	0	0	1	0	0	0	0	0	0	1
1976	0	0	0	0	0	2	0	0	0	0	0	0	2
1977	0	0	0	0	0	2	0	0	0	0	0	0	2
1978	0	0	0	0	0	2	0	0	0	0	0	0	3
1979	0	0	0	0	0	2	0	0	0	0	0	0	2
1980	0	0	0	0	0	2	0	0	0	0	0	0	2
1981	0	0	0	0	0	2	0	0	0	0	0	0	2
1982	0	0	0	0	0	2	0	0	0	0	0	0	2
1983	0	0	0	0	0	1	0	0	0	0	0	0	1
1984	0	0	0	0	0	2	0	0	0	0	0	0	2
1985	0	0	0	0	0	2	0	0	0	0	0	0	2
1986	0	0	0	0	0	1	0	0	0	0	0	0	1
1987	0	0	0	0	0	1	0	0	0	0	0	0	1
1988	0	0	0	0	0	2	0	0	0	0	0	0	2
1989	0	0	0	0	0	2	0	0	0	0	0	0	2
1990	0	0	0	0	0	2	0	0	0	0	0	0	2
1991	0	0	0	0	0	1	0	0	0	0	0	0	1
Average:	0	0	0	0	0	2	0	0	0	0	0	0	2
Minimum:	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum:	0	0	0	0	0	6	0	0	0	0	0	0	6

Note:
Comparison is made between Current Conditions (2006) (no shortages) and Full Use of the Existing System, which includes other reasonably foreseeable future actions.

Table H-13.18. Copper Mountain Water and Sanitation District Total Shortage (AF)

WATER YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1947	0	0	0	0	0	0	0	0	0	0	13	5	18
1948	0	0	0	0	0	0	0	0	0	0	13	5	18
1949	0	0	0	0	0	0	0	0	0	0	13	5	18
1950	0	0	0	0	0	0	0	0	0	0	13	5	18
1951	0	0	0	0	0	0	0	0	0	0	13	5	18
1952	0	0	0	0	0	0	2	0	0	0	13	5	20
1953	0	0	0	0	0	0	0	0	0	0	13	5	18
1954	0	0	0	0	0	0	0	0	0	0	13	5	18
1955	0	0	0	0	0	0	0	0	0	0	13	5	18
1956	0	0	0	0	0	0	0	0	0	0	13	5	18
1957	0	0	0	0	0	0	0	0	0	0	13	5	18
1958	0	0	0	0	0	0	0	0	0	0	13	5	18
1959	0	0	0	0	0	0	0	0	0	0	13	5	18
1960	0	0	0	0	0	0	0	0	0	0	13	5	18
1961	0	0	0	0	0	0	0	0	0	0	13	5	18
1962	0	0	0	0	0	0	0	0	0	0	13	5	18
1963	0	0	0	0	0	0	0	0	0	0	13	5	18
1964	0	0	0	0	0	0	0	0	0	0	13	5	18
1965	0	0	0	0	0	0	0	0	0	0	13	5	18
1966	0	0	0	0	0	0	0	0	0	0	13	5	18
1967	0	0	0	0	0	0	0	0	0	0	13	5	18
1968	0	0	0	0	0	0	0	0	0	0	13	5	18
1969	0	0	0	0	0	0	0	0	0	0	13	5	18
1970	0	0	0	0	0	0	0	0	0	0	13	5	18
1971	0	0	0	0	0	0	0	0	0	0	13	5	18
1972	0	0	0	0	0	0	0	0	0	0	13	5	18
1973	0	0	0	0	0	0	0	0	0	0	13	5	18
1974	0	0	0	0	0	0	0	0	0	0	13	5	18
1975	0	0	0	0	0	0	0	0	0	0	13	5	18
1976	0	0	0	0	0	0	0	0	0	0	13	5	18
1977	0	0	0	0	0	0	0	0	0	0	13	5	18
1978	0	0	0	0	0	0	0	0	0	0	13	5	18
1979	0	0	0	0	0	0	0	0	0	0	13	5	18
1980	0	0	0	0	0	0	0	0	0	0	13	5	18
1981	0	0	0	0	0	0	0	0	0	0	13	5	18
1982	0	0	0	0	0	0	0	0	0	0	13	5	18
1983	0	0	0	0	0	0	0	0	0	0	13	5	18
1984	0	0	0	0	0	0	0	0	0	0	13	5	18
1985	0	0	0	0	0	0	0	0	0	0	13	5	18
1986	0	0	0	0	0	0	0	0	0	0	13	5	18
1987	0	0	0	0	0	0	0	0	0	0	13	5	18
1988	0	0	0	0	0	0	0	0	0	0	13	5	18
1989	0	0	0	0	0	0	0	0	0	0	13	5	18
1990	0	0	0	0	0	0	0	0	0	0	13	5	18
1991	0	0	0	0	0	0	0	0	0	0	13	5	18
Average:	0	0	0	0	0	0	0	0	0	0	13	5	18
Minimum:	0	0	0	0	0	0	0	0	0	0	13	5	18
Maximum:	0	0	0	0	0	0	2	0	0	0	13	5	20

Note:
Comparison is made between Current Conditions (2006) (no shortages) and Full Use of the Existing System, which includes other reasonably foreseeable future actions.

Appendix H-14
Peak Flows

- Table H-14.1 Changes in Small Floods Compared to Current Conditions
- Table H-14.2 Changes in Large Floods Compared to Current Conditions
- Table H-14.3 Changes in High Flow Pulses Compared to Current Conditions
- Table H-14.4 Changes in the Peak Flow in an Average Year Compared to Current Conditions
- Table H-14.5 Changes in the Peak Flow in a Wet Year Compared to Current Conditions
- Table H-14.6 Changes in Small Floods Compared to Full Use of the Existing System
- Table H-14.7 Changes in Large Floods Compared to Full Use of the Existing System
- Table H-14.8 Changes in High Flow Pulses Compared to Full Use of the Existing System
- Table H-14.9 Changes in the Peak Flow in an Average Year Compared to Full Use of the Existing System
- Table H-14.10 Changes in the Peak Flow in a Wet Year Compared to Full Use of the Existing System
- **IHA Output**

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Table H-14.1 Changes in Small Floods Compared to Current Conditions[1]

		Current Conditions				Alternative 1a				Alt 1a - Current Conditions		
Node Number	Node Name	Peak (cfs)	Duration (days)	Timing (Date)	Timing (Julian Day)	Peak (cfs)	Duration (days)	Timing (Date)	Timing (Julian Day)	Change in Peak (cfs)	Change in Duration (days)	Change in Timing (days)[2]
St. Louis - Vasquez Section												
2180	St. Louis Ck and Tributaries Diversion	90.6	24.5	22-Jun	173.0	81.7	9.8	24-Jun	175.0	-8.9	-14.8	2.0
2170	St. Louis Ck Diversion	108.1	30.0	22-Jun	173.0	99.3	11.3	21-Jun	171.8	-8.8	-18.7	-1.2
2300	Elk Ck and Tributaries Diversion	23.4	26.0	18-Jun	169.0	21.7	9.0	20-Jun	171.0	-1.7	-17.0	2.0
2220	King Ck Diversion	4.0	21.0	22-Jun	173.0	4.0	8.0	25-Jun	176.0	0.0	-13.0	3.0
2280	Vasquz Creek Diversion	174.0	16.0	21-Jun	172.0	180.6	7.0	21-Jun	172.0	6.6	-9.0	0.0
Fraser - Jim Creek Section												
2120	Fraser River Diversion	151.6	13.0	20-Jun	171.0	140.3	9.0	21-Jun	172.0	-11.3	-4.0	1.0
2160	Jim Ck Diversion	56.5	4.8	17-Jun	168.3	54.2	3.0	20-Jun	171.0	-2.3	-1.8	2.7
2700	Fraser River below St. Louis Ck	722.0	90.0	19-Jun	170.0	666.3	86.0	19-Jun	170.0	-55.7	-4.0	0.0
2810	Fraser River below Crooked Ck	1,156.0	96.0	18-Jun	169.0	1,114.0	97.0	19-Jun	170.0	-42.0	1.0	1.0
Ranch Creek Section												
2490	North Fork Ranch and Dribble Ck Diversion	42.3	38.0	16-Jun	167.0	42.2	22.0	16-Jun	167.0	-0.1	-16.0	0.0
2500	Main Ranch Ck Diversion	53.9	38.0	16-Jun	167.0	53.7	23.0	16-Jun	167.0	-0.2	-15.0	0.0
2520	Middle and South Fork Ranch Ck Diversion	73.7	35.5	18-Jun	168.5	75.7	18.0	16-Jun	166.5	2.0	-17.5	-2.0
Williams Fork River												
3150	Bobtail Ck Diversion	109.0	41.0	20-Jun	171.0	109.1	23.0	20-Jun	171.0	0.1	-18.0	0.0
3600	Williams Fork R. abv Darling Ck Gage	362.5	87.0	19-Jun	170.0	367.0	85.5	19-Jun	169.5	4.5	-1.5	-0.5

[1] Small floods are defined as flows equal to or greater than the 2-year flood but less than the 10-year flood.

[2] A negative value indicates the peak occurs earlier by the number of days shown, whereas a positive value indicates the peak occurs later by the number of days shown.

Table H-14.2 Changes in Large Floods Compared to Current Conditions[1]

		Current Conditions				Alternative 1a				Alt 1a - Current Conditions		
Node Number	Node Name	Peak (cfs)	Duration (days)	Timing (Date)	Timing (Julian Day)	Peak (cfs)	Duration (days)	Timing (Date)	Timing (Julian Day)	Change in Peak (cfs)	Change in Duration (days)	Change in Timing (days)[2]
St. Louis - Vasquez Section												
2180	St. Louis Ck and Tributaries Diversion	127.6	50.0	18-Jun	179.0	127.6	29.0	18-Jun	179.0	0.0	-21.0	0.0
2170	St. Louis Ck Diversion	149.7	54.5	18-Jun	179.0	149.7	37.0	18-Jun	179.0	0.0	-17.5	0.0
2300	Elk Ck and Tributaries Diversion	32.9	46.5	26-Jun	176.5	32.9	5.5	26-Jun	176.5	0.0	-41.0	0.0
2220	King Ck Diversion	6.3	17.0	23-Jun	174.0	6.1	9.0	25-Jun	176.0	-0.2	-8.0	2.0
2280	Vasquz Creek Diversion	310.5	51.5	26-Jun	176.5	303.9	15.0	25-Jun	176.0	-6.6	-36.5	-0.5
Fraser - Jim Creek Section												
2120	Fraser River Diversion	248.2	34.0	21-Jun	171.5	254.8	22.5	21-Jun	171.5	6.6	-11.5	0.0
2160	Jim Ck Diversion	100.7	22.0	13-Jun	164.3	100.2	12.0	14-Jun	165.0	-0.5	-10.0	0.7
2700	Fraser River below St. Louis Ck	1,204.0	132.5	20-Jun	171.0	1,174.0	92.0	16-Jun	166.5	-30.0	-40.5	-4.5
2810	Fraser River below Crooked Ck	2,236.0	121.5	21-Jun	171.5	1,844.0	101.0	9-Jun	160.0	-392.0	-20.5	-11.5
Ranch Creek Section												
2490	North Fork Ranch and Dribble Ck Diversion	67.5	71.5	22-Jun	173.0	67.5	26.5	22-Jun	173.0	0.0	-45.0	0.0
2500	Main Ranch Ck Diversion	85.9	74.0	22-Jun	173.0	85.9	28.5	22-Jun	173.0	0.0	-45.5	0.0
2520	Middle and South Fork Ranch Ck Diversion	125.4	50.0	22-Jun	173.0	125.4	13.0	22-Jun	173.0	0.0	-37.0	0.0
Williams Fork River												
3150	Bobtail Ck Diversion	146.1	53.0	26-Jun	176.5	146.1	26.0	26-Jun	176.5	0.0	-27.0	0.0
3600	Williams Fork R. abv Darling Ck Gage	503.5	88.5	26-Jun	177.0	503.5	83.5	26-Jun	177.0	0.0	-5.0	0.0

[1] Large floods are defined as flows equal to or greater than the 10-year flood.

[2] A negative value indicates the peak occurs earlier by the number of days shown, whereas a positive value indicates the peak occurs later by the number of days shown.

Table H-14.3 Changes in High Flow Pulses Compared to Current Conditions[1]

		Current Conditions				Alternative 1a				Alternative 1a - Current Conditions		
Node Number	Node Name	Peak (cfs)	Duration (days)	Timing (Date)	Timing (Julian Day)	Peak (cfs)	Duration (days)	Timing (Date)	Timing (Julian Day)	Change in Peak (cfs)	Change in Duration (days)	Change in Timing (days)[2]
St. Louis - Vasquez Section												
2180	St. Louis Ck and Tributaries Diversion	37.8	3.0	6-Jul	187.0	39.9	2.0	5-Jul	186.0	2.1	-1.0	-1.0
2170	St. Louis Ck Diversion	38.9	3.0	2-Jul	183.0	46.7	2.5	8-Jul	189.0	7.8	-0.5	6.0
2300	Elk Ck and Tributaries Diversion	7.3	3.0	9-Jul	190.0	4.5	2.0	11-Jul	191.5	-2.8	-1.0	1.5
2220	King Ck Diversion	2.0	2.0	29-Jun	180.0	2.0	1.8	8-Jul	189.0	0.0	-0.2	9.0
2280	Vasquz Creek Diversion	70.7	3.0	8-Jul	189.3	78.3	1.8	6-Jul	187.0	7.6	-1.2	-2.3
Fraser - Jim Creek Section												
2120	Fraser River Diversion	42.2	1.0	29-Jun	180.0	42.5	1.0	27-Jun	177.5	0.3	0.0	-2.5
2160	Jim Ck Diversion	12.5	2.3	21-Jun	172.3	11.8	2.3	19-Jun	169.5	-0.7	0.0	-2.8
2700	Fraser River below St. Louis Ck	36.5	5.0	20-Jul	201.0	26.7	4.5	7-Jun	157.5	-9.8	-0.5	-43.5
2810	Fraser River below Crooked Ck	89.2	5.0	22-Jul	203.0	97.3	5.0	13-Jul	194.0	8.1	0.0	-9.0
Ranch Creek Section												
2490	North Fork Ranch and Dribble Ck Diversion	9.1	2.5	1-Jul	182.0	9.7	2.0	26-Jun	177.0	0.6	-0.5	-5.0
2500	Main Ranch Ck Diversion	11.0	3.0	3-Jul	184.0	11.4	3.0	1-Jul	181.8	0.4	0.0	-2.2
2520	Middle and South Fork Ranch Ck Diversion	17.0	2.0	8-Jul	189.0	17.9	2.0	8-Jul	188.8	0.9	0.0	-0.2
Williams Fork River												
3150	Bobtail Ck Diversion	24.0	2.5	10-Jul	191.0	42.5	2.5	22-Jun	173.3	18.5	0.0	-17.7
3600	Williams Fork R. abv Darling Ck Gage	16.0	4.5	31-Jul	212.0	16.7	4.5	18-Jul	199.0	0.7	0.0	-13.0

[1] High-flow pulses are defined as flows during rainstorms or brief periods of snowmelt when flows exceed low-flow levels but are less than bankfull.

[2] A negative value indicates the peak occurs earlier by the number of days shown, whereas a positive value indicates the peak occurs later by the number of days shown.

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Table H-14.4 Changes in the Peak Flow in an Average Year Compared to Current Conditions[1]

		Current Conditions		Alternative 1a		Alt 1a - Current Conditions	
Node Number	Node Name	Peak (cfs)	Timing (Date)	Peak (cfs)	Timing (Date)	Change in Peak (cfs)	Change in Timing (days)[2]
St. Louis - Vasquez Section							
2180	St. Louis Ck and Tributaries Diversion	39.6	21-Jun	24.3	27-Jun	-15.3	6
2170	St. Louis Ck Diversion	54.1	21-Jun	41.5	21-Jun	-12.5	0
2300	Elk Ck and Tributaries Diversion	10.6	21-Jun	7.1	21-Jun	-3.5	0
2220	King Ck Diversion	1.8	21-Jun	1.1	24-Jun	-0.7	3
2280	Vasquz Creek Diversion	72.0	21-Jun	46.3	18-Jun	-25.7	-3
Fraser - Jim Creek Section							
2120	Fraser River Diversion	58.0	10-Jun	41.1	18-Jun	-17.0	8
2160	Jim Ck Diversion	15.1	12-Jun	7.9	22-Jun	-7.2	10
2700	Fraser River below St. Louis Ck	302.0	21-Jun	202.0	21-Jun	-100.0	0
2810	Fraser River below Crooked Ck	551.0	16-Jun	436.0	21-Jun	-115.0	5
Ranch Creek Section							
2490	North Fork Ranch and Dribble Ck Diversion	19.3	19-Jun	16.5	21-Jun	-2.8	2
2500	Main Ranch Ck Diversion	25.4	21-Jun	21.2	21-Jun	-4.2	0
2520	Middle and South Fork Ranch Ck Diversion	34.3	21-Jun	24.0	21-Jun	-10.3	0
Williams Fork River							
3150	Bobtail Ck Diversion	50.0	21-Jun	41.6	21-Jun	-8.4	0
3600	Williams Fork River abv Darling Ck Gage	203.5	21-Jun	186.2	21-Jun	-17.3	0
Colorado River							
1350	Colorado River below Windy Gap	801.8	22-Jun	625.7	25-Jun	-176.1	3
1430	Colorado River below Williams Fork River Confluence	976.2	22-Jun	814.4	21-Jun	-161.8	-1
5020	Colorado River near Kremmling Gage	2,640.9	27-Jun	2,072.9	23-Jun	-568.0	-4
Muddy Creek							
1600	Wolford Mountain Reservoir Outflow	559.9	31-May	529.2	31-May	-30.7	0
Blue River							
4250	Dillon Reservoir Outflow	900.4	17-Jun	625.7	27-Jun	-274.7	10
4650	Green Mtn Reservoir Outflow	1,337.8	27-Jun	900.7	23-Jun	-437.1	-4
South Boulder Creek							
57120	South Boulder Creek at Pinecliffe Gage	710.6	8-Jun	838.7	8-Jun	128.1	0
57140	Gross Reservoir Outflow	456.9	23-Jun	428.6	26-Jun	-28.3	3
57180	South Boulder Creek near Eldorado Springs Gage	317.4	9-Jun	293.3	9-Jun	-24.1	0
North Fork South Platte River							
50700	North Fork South Platte below Geneva Ck Gage	332.8	24-Jun	434.5	26-Jun	101.7	2
South Platte River							
51200	South Platte River at Waterton Gage	656.7	14-Jun	614.5	14-Jun	-42.2	0
58440	South Platte River at Henderson Gage	1,227.7	17-Jun	1,190.2	17-Jun	-37.5	0

[1] An average year is defined as the average of the 45-year study period.

[2] A negative value indicates the peak occurs earlier by the number of days shown, whereas a positive value indicates the peak occurs later by the number of days shown.

Table H-14.5 Changes in the Peak Flow in a Wet Year Compared to Current Conditions[1]

		Current Conditions		Alternative 1a		Alt 1a - Current Conditions	
Node Number	Node Name	Peak (cfs)	Timing (Date)	Peak (cfs)	Timing (Date)	Change in Peak (cfs)	Change in Timing (days)[2]
St. Louis - Vasquez Section							
2180	St. Louis Ck and Tributaries Diversion	88.9	26-Jun	88.7	27-Jun	-0.2	1
2170	St. Louis Ck Diversion	106.1	1-Jul	104.1	27-Jun	-2.0	-4
2300	Elk Ck and Tributaries Diversion	21.8	22-Jun	22.6	21-Jun	0.8	-1
2220	King Ck Diversion	1.8	21-Jun	3.9	22-Jun	2.2	1
2280	Vasquz Creek Diversion	177.4	25-Jun	172.5	21-Jun	-4.9	-4
Fraser - Jim Creek Section							
2120	Fraser River Diversion	183.3	21-Jun	177.2	21-Jun	-6.1	0
2160	Jim Ck Diversion	43.8	20-Jun	45.4	22-Jun	1.6	2
2700	Fraser River below St. Louis Ck	703.0	14-Jun	675.0	21-Jun	-28.0	7
2810	Fraser River below Crooked Ck	1,269.0	13-Jun	1,152.0	13-Jun	-117.0	0
Ranch Creek Section							
2490	North Fork Ranch and Dribble Ck Diversion	40.1	20-Jun	40.1	20-Jun	0.0	0
2500	Main Ranch Ck Diversion	51.1	20-Jun	51.1	20-Jun	0.0	0
2520	Middle and South Fork Ranch Ck Diversion	74.6	20-Jun	74.6	20-Jun	0.0	0
Williams Fork River							
3150	Bobtail Ck Diversion	101.2	21-Jun	101.2	21-Jun	0.0	0
3600	Williams Fork River abv Darling Ck Gage	361.9	21-Jun	361.8	21-Jun	-0.1	0
Colorado River							
1350	Colorado River below Windy Gap	2,929.9	1-Jul	2,925.1	1-Jul	-4.8	0
1430	Colorado River below Williams Fork River Confluence	3,569.7	1-Jul	3,667.8	1-Jul	98.1	0
5020	Colorado River near Kremmling Gage	6,872.1	27-Jun	6,831.6	27-Jun	-40.5	0
Muddy Creek							
1600	Wolford Mountain Reservoir Outflow	869.4	29-May	878.3	29-May	8.9	0
Blue River							
4250	Dillon Reservoir Outflow	1,446.1	28-Jun	1,654.0	20-Jun	207.9	-8
4650	Green Mtn Reservoir Outflow	2,707.4	30-Jun	2,819.4	25-Jun	112.0	-5
South Boulder Creek							
57120	South Boulder Creek at Pinecliffe Gage	641.1	27-May	884.5	9-Jun	243.4	13
57140	Gross Reservoir Outflow	450.8	27-Jun	519.4	27-Jun	68.6	0
57180	South Boulder Creek near Eldorado Springs Gage	383.9	11-Jun	358.7	11-Jun	-25.2	0
North Fork South Platte River							
50700	North Fork South Platte below Geneva Ck Gage	415.1	19-Jun	418.5	19-Jun	3.4	0
South Platte River							
51200	South Platte River at Waterton Gage	2,420.1	13-Jun	2,304.6	13-Jun	-115.5	0
58440	South Platte River at Henderson Gage	4,048.6	14-Jun	3,972.4	6-May	-76.2	-39[3]

[1] An average wet year is defined as the average of the 5 wettest years of the study period on the East and West Slopes, respectively.

[2] A negative value indicates the peak occurs earlier by the number of days shown, whereas a positive value indicates the peak occurs later by the number of days shown.

[3] A second peak of 3,886 cfs occurs on June 14 under Alternative 1a, which is 163 cfs less than the peak on June 14th under Current Conditions.

Table H-14.6 Changes in Small Floods Compared to Full Use of the Existing System[1]

		Full Use of Existing System				Alternative 1a				Alt 1a - Full Use		
Node Number	Node Name	Peak (cfs)	Duration (days)	Timing (Date)	Timing (Julian Day)	Peak (cfs)	Duration (days)	Timing (Date)	Timing (Julian Day)	Change in Peak (cfs)	Change in Duration (days)	Change in Timing (days)[2]
St. Louis - Vasquez Section												
2180	St. Louis Ck and Tributaries Diversion	90.6	21.0	22-Jun	173.0	81.7	9.8	24-Jun	175.0	-8.9	-11.3	2.0
2170	St. Louis Ck Diversion	110.1	32.0	19-Jun	170.0	99.3	11.3	21-Jun	171.8	-10.8	-20.7	1.8
2300	Elk Ck and Tributaries Diversion	22.6	23.5	21-Jun	171.5	21.7	9.0	20-Jun	171.0	-0.9	-14.5	-0.5
2220	King Ck Diversion	4.1	15.5	23-Jun	173.5	4.0	8.0	25-Jun	176.0	-0.1	-7.5	2.5
2280	Vasquz Creek Diversion	171.9	17.5	19-Jun	170.0	180.6	7.0	21-Jun	172.0	8.7	-10.5	2.0
Fraser - Jim Creek Section												
2120	Fraser River Diversion	133.3	10.3	22-Jun	172.5	140.3	9.0	21-Jun	172.0	7.0	-1.3	-0.5
2160	Jim Ck Diversion	58.8	3.0	17-Jun	167.5	54.2	3.0	20-Jun	171.0	-4.6	0.0	3.5
2700	Fraser River below St. Louis Ck	721.3	74.0	18-Jun	169.0	666.3	86.0	19-Jun	170.0	-55.0	12.0	1.0
2810	Fraser River below Crooked Ck	1,135.0	96.0	18-Jun	169.0	1,114.0	97.0	19-Jun	170.0	-21.0	1.0	1.0
Ranch Creek Section												
2490	North Fork Ranch and Dribble Ck Diversion	42.3	37.0	16-Jun	167.0	42.2	22.0	16-Jun	167.0	-0.1	-15.0	0.0
2500	Main Ranch Ck Diversion	53.9	34.0	16-Jun	167.0	53.7	23.0	16-Jun	167.0	-0.2	-11.0	0.0
2520	Middle and South Fork Ranch Ck Diversion	76.6	33.5	17-Jun	168.0	75.7	18.0	16-Jun	166.5	-0.9	-15.5	-1.5
Williams Fork River												
3150	Bobtail Ck Diversion	109.0	39.0	20-Jun	171.0	109.1	23.0	20-Jun	171.0	0.1	-16.0	0.0
3600	Williams Fork R. abv Darling Ck Gage	362.4	87.0	19-Jun	170.0	367.0	85.5	19-Jun	169.5	4.6	-1.5	-0.5

[1] Small floods are defined as flows equal to or greater than the 2-year flood but less than the 10-year flood.

[2] A negative value indicates the peak occurs earlier by the number of days shown, whereas a positive value indicates the peak occurs later by the number of days shown.

Table H-14.7 Changes in Large Floods Compared to Full Use of the Existing System[1]

		Full Use of Existing System				Alternative 1a				Alt 1a - Full Use		
Node Number	Node Name	Peak (cfs)	Duration (days)	Timing (Date)	Timing (Julian Day)	Peak (cfs)	Duration (days)	Timing (Date)	Timing (Julian Day)	Change in Peak (cfs)	Change in Duration (days)	Change in Timing (days)[2]
St. Louis - Vasquez Section												
2180	St. Louis Ck and Tributaries Diversion	127.6	38.5	28-Jun	179.0	127.6	29.0	18-Jun	179.0	0.0	-9.5	0.0
2170	St. Louis Ck Diversion	149.7	50.5	28-Jun	179.0	149.7	37.0	18-Jun	179.0	0.0	-13.5	0.0
2300	Elk Ck and Tributaries Diversion	32.9	41.5	26-Jun	176.5	32.9	5.5	26-Jun	176.5	0.0	-36.0	0.0
2220	King Ck Diversion	6.3	16.0	23-Jun	174.0	6.1	9.0	25-Jun	176.0	-0.2	-7.0	2.0
2280	Vasquz Creek Diversion	310.5	47.0	26-Jun	176.5	303.9	15.0	25-Jun	176.0	-6.6	-32.0	-0.5
Fraser - Jim Creek Section												
2120	Fraser River Diversion	251.1	27.5	21-Jun	171.5	254.8	22.5	21-Jun	171.5	3.7	-5.0	0.0
2160	Jim Ck Diversion	104.2	17.0	23-Jun	174.0	100.2	12.0	14-Jun	165.0	-4.0	-5.0	-9.0
2700	Fraser River below St. Louis Ck	1,219.0	105.5	20-Jun	171.0	1,174.0	92.0	16-Jun	166.5	-45.0	-13.5	-4.5
2810	Fraser River below Crooked Ck	2,235.0	114.0	21-Jun	171.5	1,844.0	101.0	9-Jun	160.0	-391.0	-13.0	-11.5
Ranch Creek Section												
2490	North Fork Ranch and Dribble Ck Diversion	67.5	70.0	22-Jun	173.0	67.5	26.5	22-Jun	173.0	0.0	-43.5	0.0
2500	Main Ranch Ck Diversion	85.9	73.0	22-Jun	173.0	85.9	28.5	22-Jun	173.0	0.0	-44.5	0.0
2520	Middle and South Fork Ranch Ck Diversion	125.4	48.5	22-Jun	173.0	125.4	13.0	22-Jun	173.0	0.0	-35.5	0.0
Williams Fork River												
3150	Bobtail Ck Diversion	146.1	51.5	26-Jun	176.5	146.1	26.0	26-Jun	176.5	0.0	-25.5	0.0
3600	Williams Fork R. abv Darling Ck Gage	503.5	88.0	26-Jun	177.0	503.5	83.5	26-Jun	177.0	0.0	-4.5	0.0

[1] Large floods are defined as flows equal to or greater than the 10-year flood.

[2] A negative value indicates the peak occurs earlier by the number of days shown, whereas a positive value indicates the peak occurs later by the number of days shown.

Table H-14.8 Changes in High Flow Pulses Compared to Full Use of the Existing System[1]

		Full Use of Existing System				Alternative 1a				Alternative 1a - Full Use		
Node Number	Node Name	Peak (cfs)	Duration (days)	Timing (Date)	Timing (Julian Day)	Peak (cfs)	Duration (days)	Timing (Date)	Timing (Julian Day)	Change in Peak (cfs)	Change in Duration (days)	Change in Timing (days)[2]
St. Louis - Vasquez Section												
2180	St. Louis Ck and Tributaries Diversion	39.3	3.0	7-Jul	187.5	39.9	2.0	5-Jul	186.0	0.6	-1.0	-1.5
2170	St. Louis Ck Diversion	39.4	2.5	2-Jul	182.8	46.7	2.5	8-Jul	189.0	7.3	0.0	6.2
2300	Elk Ck and Tributaries Diversion	5.6	2.0	10-Jul	191.0	4.5	2.0	11-Jul	191.5	-1.1	0.0	0.5
2220	King Ck Diversion	2.0	2.0	1-Jul	181.8	2.0	1.8	8-Jul	189.0	0.0	-0.2	7.2
2280	Vasquz Creek Diversion	72.1	2.0	7-Jul	187.8	78.3	1.8	6-Jul	187.0	6.2	-0.2	-0.8
Fraser - Jim Creek Section												
2120	Fraser River Diversion	32.0	1.0	28-Jun	179.0	42.5	1.0	27-Jun	177.5	10.5	0.0	-1.5
2160	Jim Ck Diversion	14.9	2.0	20-Jun	171.0	11.8	2.3	19-Jun	169.5	-3.1	0.3	-1.5
2700	Fraser River below St. Louis Ck	37.1	4.5	10-Jun	160.5	26.7	4.5	7-Jun	157.5	-10.4	0.0	-3.0
2810	Fraser River below Crooked Ck	93.5	5.0	22-Jul	203.0	97.3	5.0	13-Jul	194.0	3.8	0.0	-9.0
Ranch Creek Section												
2490	North Fork Ranch and Dribble Ck Diversion	9.9	2.8	27-Jun	177.5	9.7	2.0	26-Jun	177.0	-0.2	-0.8	-0.5
2500	Main Ranch Ck Diversion	11.2	3.0	1-Jul	181.5	11.4	3.0	1-Jul	181.8	0.2	0.0	0.3
2520	Middle and South Fork Ranch Ck Diversion	16.8	2.0	7-Jul	188.0	17.9	2.0	8-Jul	188.8	1.1	0.0	0.8
Williams Fork River												
3150	Bobtail Ck Diversion	36.5	3.3	1-Jul	182.3	42.5	2.5	22-Jun	173.3	6.0	-0.8	-9.0
3600	Williams Fork R. abv Darling Ck Gage	16.3	4.5	22-Jul	203.0	16.7	4.5	18-Jul	199.0	0.4	0.0	-4.0

[1] High-flow pulses are defined as flows during rainstorms or brief periods of snowmelt when flows exceed low-flow levels but are less than bankfull.

[2] A negative value indicates the peak occurs earlier by the number of days shown, whereas a positive value indicates the peak occurs later by the number of days shown.

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Table H-14.9 Changes in the Peak Flow in an Average Year Compared to Full Use of the Existing System[1]

		Full Use of Existing System		Alternative 1a		Alt 1a - Full Use	
Node Number	Node Name	Peak (cfs)	Timing (Date)	Peak (cfs)	Timing (Date)	Change in Peak (cfs)	Change in Timing (days)[2]
St. Louis - Vasquez Section							
2180	St. Louis Ck and Tributaries Diversion	39.6	21-Jun	24.3	27-Jun	-15.3	6
2170	St. Louis Ck Diversion	52.5	21-Jun	41.5	21-Jun	-11.0	0
2300	Elk Ck and Tributaries Diversion	10.1	21-Jun	7.1	21-Jun	-3.0	0
2220	King Ck Diversion	1.6	17-Jun	1.1	24-Jun	-0.5	7
2280	Vasquz Creek Diversion	71.4	17-Jun	46.3	18-Jun	-25.1	1
Fraser - Jim Creek Section							
2120	Fraser River Diversion	47.3	22-Jun	41.1	18-Jun	-6.2	-4
2160	Jim Ck Diversion	13.0	21-Jun	7.9	22-Jun	-5.1	1
2700	Fraser River below St. Louis Ck	281.0	16-Jun	202.0	21-Jun	-79.0	5
2810	Fraser River below Crooked Ck	552.1	16-Jun	436.0	21-Jun	-116.1	5
Ranch Creek Section							
2490	North Fork Ranch and Dribble Ck Diversion	19.7	18-Jun	16.5	21-Jun	-3.2	3
2500	Main Ranch Ck Diversion	25.3	17-Jun	21.2	21-Jun	-4.1	4
2520	Middle and South Fork Ranch Ck Diversion	33.6	18-Jun	24.0	21-Jun	-9.6	3
Williams Fork River							
3150	Bobtail Ck Diversion	48.6	21-Jun	41.6	21-Jun	-7.0	0
3600	Williams Fork River abv Darling Ck Gage	200.2	21-Jun	186.2	21-Jun	-14.0	0
Colorado River							
1350	Colorado River below Windy Gap	767.9	22-Jun	625.7	25-Jun	-142.2	3
1430	Colorado River below Williams Fork River Confluence	991.1	21-Jun	814.4	21-Jun	-176.7	0
5020	Colorado River near Kremmling Gage	2,329.9	21-Jun	2,072.9	23-Jun	-257.0	2
Muddy Creek							
1600	Wolford Mountain Reservoir Outflow	529.3	31-May	529.3	31-May	0.0	0
Blue River							
4250	Dillon Reservoir Outflow	677.2	23-Jun	625.7	27-Jun	-51.5	4
4650	Green Mtn Reservoir Outflow	923.6	25-Jun	900.7	23-Jun	-22.9	-2
South Boulder Creek							
57120	South Boulder Creek at Pinecliffe Gage	721.7	7-Jun	838.7	8-Jun	117.0	1
57140	Gross Reservoir Outflow	494.0	8-Jun	428.6	26-Jun	-65.4	18
57180	South Boulder Creek near Eldorado Springs Gage	317.4	9-Jun	293.3	9-Jun	-24.1	0
North Fork South Platte River							
50700	North Fork South Platte below Geneva Ck Gage	397.0	9-Sep	434.5	26-Jun	37.5	-75[3]
South Platte River							
51200	South Platte River at Waterton Gage	633.1	13-Jun	614.5	14-Jun	-18.6	1
58440	South Platte River at Henderson Gage	1,200.0	17-Jun	1,190.2	17-Jun	-9.8	0

[1] An average year is defined as the average of the 45-year study period.

[2] A negative value indicates the peak occurs earlier by the number of days shown, whereas a positive value indicates the peak occurs later by the number of days shown.

[3] A second peak of 386.4 cfs occurs on June 24 under Full Use of the Existing System, which is 48.6 cfs less and 2 days earlier than the peak that occurs under Alt. 1a.

Table H-14.10 Changes in the Peak Flow in a Wet Year Compared to Full Use of the Existing System[1]

		Full Use of Existing Sytem		Alternative 1a		Alt 1a - Full Use	
Node Number	Node Name	Peak (cfs)	Timing (Date)	Peak (cfs)	Timing (Date)	Change in Peak (cfs)	Change in Timing (days)[2]
St. Louis - Vasquez Section							
2180	St. Louis Ck and Tributaries Diversion	88.9	26-Jun	88.7	27-Jun	-0.2	1
2170	St. Louis Ck Diversion	104.3	26-Jun	104.1	27-Jun	-0.2	1
2300	Elk Ck and Tributaries Diversion	22.6	21-Jun	22.6	21-Jun	0.0	0
2220	King Ck Diversion	3.9	22-Jun	3.9	22-Jun	0.0	0
2280	Vasquz Creek Diversion	171.4	21-Jun	172.5	21-Jun	1.1	0
Fraser - Jim Creek Section							
2120	Fraser River Diversion	139.8	22-Jun	177.2	21-Jun	37.4	-1
2160	Jim Ck Diversion	44.4	20-Jun	45.4	22-Jun	1.0	2
2700	Fraser River below St. Louis Ck	689.5	21-Jun	675.0	21-Jun	-14.5	0
2810	Fraser River below Crooked Ck	1,243.2	13-Jun	1,152.0	13-Jun	-91.2	0
Ranch Creek Section							
2490	North Fork Ranch and Dribble Ck Diversion	40.1	20-Jun	40.1	20-Jun	0.0	0
2500	Main Ranch Ck Diversion	51.1	20-Jun	51.1	20-Jun	0.0	0
2520	Middle and South Fork Ranch Ck Diversion	74.6	20-Jun	74.6	20-Jun	0.0	0
Williams Fork River							
3150	Bobtail Ck Diversion	101.2	21-Jun	101.2	21-Jun	0.0	0
3600	Williams Fork River abv Darling Ck Gage	361.9	21-Jun	361.8	21-Jun	-0.1	0
Colorado River							
1350	Colorado River below Windy Gap	3,109.3	22-Jun	2,925.1	1-Jul	-184.2	9
1430	Colorado River below Williams Fork River Confluence	3,787.7	22-Jun	3,667.8	1-Jul	-119.9	9
5020	Colorado River near Kremmling Gage	7,382.3	22-Jun	6,831.6	27-Jun	-550.7	5
Muddy Creek							
1600	Wolford Mountain Reservoir Outflow	878.3	29-May	878.3	29-May	0.0	0
Blue River							
4250	Dillon Reservoir Outflow	1,652.4	20-Jun	1,654.0	20-Jun	1.6	0
4650	Green Mtn Reservoir Outflow	2,866.6	20-Jun	2,819.4	25-Jun	-47.2	5
South Boulder Creek							
57120	South Boulder Creek at Pinecliffe Gage	632.4	26-May	884.5	9-Jun	252.1	14
57140	Gross Reservoir Outflow	493.6	10-Jul	519.4	27-Jun	25.8	-13
57180	South Boulder Creek near Eldorado Springs Gage	383.9	11-Jun	358.7	11-Jun	-25.2	0
North Fork South Platte River							
50700	North Fork South Platte below Geneva Ck Gage	417.5	19-Jun	418.5	19-Jun	1.0	0
South Platte River							
51200	South Platte River at Waterton Gage	2,331.9	13-Jun	2,304.6	13-Jun	-27.3	0
58440	South Platte River at Henderson Gage	3,990.9	6-May	3,972.4	6-May	-18.5	0

[1] An average wet year is defined as the average of the 5 wettest years of the study period on the East and West Slopes, respectively.

[2] A negative value indicates the peak occurs earlier by the number of days shown, whereas a positive value indicates the peak occurs later by the number of days shown.

Non-Parametric IHA Scorecard								
Fraser River Diversion (Node 2120)								
Pre-impact period: Current Conditions (1947-1991)				Post-impact period: Alt. 1a (1947-1991)				
NormalizationFactor	1			1				
Mean annual flow	7.28			4.73				
Non-Normalized Mean Fl	7.28			4.73				
Annual C. V.	3.16			3.23				
Flow predictability	0.62			0.61				
Constancy/predictability	0.54			0.61				
% of floods in 60d period	0.44			0.44				
Flood-free season	14			14				
	MEDIANS		COEFF. of DISP.		DEVIATION FACTOR		SIGNIFICANCE COUNT	
	Pre	Post	Pre	Post	Medians	C.D.	Medians	C.D.
Parameter Group #1								
October	1.2	1.13	0.75	0.7478	0.05833	0.00295	0.7528	0.993
November	1.89	1.785	0.5172	0.7241	0.05556	0.4	0.6637	0.4344
December	2.3	2.25	0.2783	0.2644	0.02174	0.04965	0.7307	0.8959
January	2.41	2.53	0.2801	0.2352	0.04979	0.1603	0.1642	0.6717
February	2.48	2.57	0.2913	0.2763	0.03629	0.05171	0.4254	0.9079
March	2.51	2.52	0.3127	0.3313	0.003984	0.05947	0.9119	0.9499
April	1.895	1.895	0.4367	0.4776	0	0.09366	0.998	0.8298
May	0.75	0.75	0.98	0.4933	0	0.4966	0.1351	0.6507
June	9.99	7.84	5.204	0.589	0.2152	0.8868	0.1391	0.3954
July	8.64	7.94	0.2286	0.3029	0.08102	0.3251	0.1431	0.2763
August	6.11	5.93	0.2512	0.2968	0.02946	0.1814	0.5095	0.7608
September	3.23	3.13	0.4218	0.3778	0.03096	0.1044	0.8629	0.6617
Parameter Group #2								
1-day minimum	0.75	0.75	0	0	0		0.00	
3-day minimum	0.75	0.75	0	0	0		0.00	
7-day minimum	0.75	0.75	0	0	0		0.00	
30-day minimum	0.9007	0.9087	0.4067	0.4307	0.008882	0.05884	0.9009	0.6707
90-day minimum	1.765	1.619	0.3774	0.4231	0.08286	0.1211	0.5856	0.7377
1-day maximum	108.6	12.64	1.417	10.08	0.8836	6.112	0.3964	0.1491
3-day maximum	92.07	10.99	1.536	10.58	0.8806	5.889	0.3163	0.004004
7-day maximum	70.96	10.35	1.88	7.711	0.8542	3.102	0.2342	0.01602
30-day maximum	21.58	10.03	3.687	2.033	0.5355	0.4486	0.06907	0.2533
90-day maximum	12.21	8.312	2.149	0.8155	0.3195	0.6205	0.02102	0.1341
Number of zero days	0	0	0	0				
Base flow index	0.1517	0.1973	0.9269	0.3634	0.2999	0.6079	0.003003	0.03604
Parameter Group #3								
Date of minimum	275	276	0.008197	0.01366	0.005464	0.6667	0.1692	0.3534
Date of maximum	170	174	0.03552	0.04781	0.02186	0.3462	0.05205	0.2042
Parameter Group #4								
Low pulse count	11	11	0.9091	0.6818	0	0.25	0.9079	0.4294
Low pulse duration	3	3	1.333	1.5	0	0.125	0.5876	0.6046
High pulse count	6	7	1	0.9286	0.1667	0.07143	0.1041	0.7808
High pulse duration	4	3.5	2.188	2.071	0.125	0.05306	0.5746	0.9359
Low Pulse Threshold	1.81							
High Pulse Threshold	2.9							
Parameter Group #5								
Rise rate	0.205	0.205	0.5244	0.4024	2.908E-07	0.2326	0.982	0.5986
Fall rate	-0.21	-0.21	-0.3571	-0.2619	0	0.2667	0.5616	0.7067
Number of reversals	162	164	0.1481	0.1463	0.01235	0.0122	0.3233	0.973
EFC Low flows								
October Low Flow	1.185	1.13	0.7595	0.7478	0.04641	0.01541	0.7638	0.969
November Low Flow	1.89	1.785	0.5172	0.7241	0.05556	0.4	0.6637	0.4344
December Low Flow	2.3	2.25	0.2783	0.2644	0.02174	0.04965	0.7307	0.8959
January Low Flow	2.41	2.53	0.2801	0.2352	0.04979	0.1603	0.1642	0.6717
February Low Flow	2.48	2.57	0.2913	0.2763	0.03629	0.05171	0.4254	0.9079
March Low Flow	2.51	2.52	0.3127	0.3313	0.003984	0.05947	0.9119	0.9499
April Low Flow	1.895	1.895	0.4367	0.4776	0	0.09366	0.998	0.8298
May Low Flow	0.75	0.75	0.5	0.4933	0	0.01333	0.03504	0.955
June Low Flow	7.265	6.733	0.6831	0.7464	0.0733	0.09268	0.2963	0.4855
July Low Flow	8.36	7.84	0.3044	0.3881	0.0622	0.2748	0.3453	0.2673
August Low Flow	6.11	5.93	0.2512	0.2968	0.02946	0.1814	0.5095	0.7608
September Low Flow	3.23	3.13	0.4218	0.3778	0.03096	0.1044	0.8629	0.6617
EFC Parameters								
High flow peak	42.21	42.5	1.041	1.136	0.00699	0.09161	0.981	0.8569
High flow duration	1	1	0.5	0.5	0	0	0.002002	0.6156
High flow timing	180	177.5	0.05601	0.02459	0.01366	0.561	0.2863	0.1021
High flow frequency	1	1	3	2	0	0.3333	0.1051	0.1261
High flow rise rate	19.61	28.47	1.624	1.627	0.4515	0.001473	0.1982	0.994
High flow fall rate	-21.78	-18.7	-1.544	-2.431	0.1416	0.574	0.7347	0.1562
Small Flood peak	151.6	140.3	0.2118	0.237	0.07433	0.1188	0.3514	0.7558
Small Flood duration	13	9	1.538	1.222	0.3077	0.2056	0.2002	0.6496
Small Flood timing	171	172	0.02903	0.04508	0.005464	0.5529	0.8318	0.3043
Small Flood freq.	0	0	0	0				
Small Flood riserate	58.12	65.75	1.495	1.35	0.1312	0.09701	0.8609	0.8539
Small Flood fallrate	-14.66	-37.29	-1.913	-1.483	1.544	0.2248	0.04304	0.7427
Large flood peak	248.2	254.8	0.1322	0.1656	0.02659	0.2533	0.6507	0.4895
Large flood duration	34	22.5	1.169	1.378	0.3382	0.1785	0.5916	0.6727
Large flood timing	171.5	171.5	0.05601	0.03552	0	0.3659	0.8699	0.4074
Large flood freq.	0	0	0	0				
Large flood riserate	12.31	68.02	3.325	1.425	4.525	0.5716	0.05506	0.5566
Large flood fallrate	-17.61	-24.65	-0.5694	-1.107	0.3999	0.9441	0.3864	0.2302
EFC low flow threshold:								
EFC high flow threshold:		11						
EFC small flood minimum peak flow:		108.6						
EFC large flood minimum peak flow:		229.6						

Appendix H-14
Peak Flows

IHA Non-Parametric RVA Scorecard											
Fraser River Diversion (Node 2120)											
											Hydrologic
	Pre-impact period: Current Conditions				Post-impact period: Alt. 1a				RVA Boundaries		Alteration
	Medians	Coeff. of Dispersion	Minimum	Maximum	Medians	Coeff. of Dispersion	Minimum	Maximum	Low	High	(Middle Category)
Parameter Group #1											
October	1.2	0.75	0.75	2.81	1.13	0.7478	0.75	2.83	0.8144	1.41	-0.0625
November	1.89	0.5172	0.75	3	1.785	0.7241	0.75	3.03	1.594	2.187	-0.06667
December	2.3	0.2783	0.75	4.9	2.25	0.2644	0.75	3.03	2.061	2.5	0.0625
January	2.41	0.2801	0.75	5.1	2.53	0.2352	0.75	2.95	2.146	2.61	-0.05882
February	2.48	0.2913	0.75	4.25	2.57	0.2763	0.83	2.92	2.289	2.58	-0.3125
March	2.51	0.3127	0.75	3.41	2.52	0.3313	0.75	3.44	2.215	2.61	-0.3889
April	1.895	0.4367	0.75	2.7	1.895	0.4776	0.75	2.73	1.631	2.176	0
May	0.75	0.98	0.75	4.91	0.75	0.4933	0.75	4.92	0.75	1.108	0.1
June	9.99	5.204	1.77	177	7.84	0.589	0.75	177	7.826	17.86	0.2667
July	8.64	0.2286	3.76	110.8	7.94	0.3029	3.21	74.71	7.844	9.069	-0.1333
August	6.11	0.2512	1.33	7.91	5.93	0.2968	0.75	7.73	5.562	6.451	-0.06667
September	3.23	0.4218	0.83	4.59	3.13	0.3778	0.75	4.51	2.58	3.512	0.1333
Parameter Group #2											
1-day minimum	0.75	0	0.75	0.75	0.75	0	0.75	0.75	0.75	0.75	0
3-day minimum	0.75	0	0.75	0.75	0.75	0	0.75	0.75	0.75	0.75	0
7-day minimum	0.75	0	0.75	0.8357	0.75	0	0.75	0.84	0.75	0.75	0
30-day minimum	0.9007	0.4067	0.75	1.732	0.9087	0.4307	0.75	1.749	0.8004	1.059	-0.1333
90-day minimum	1.765	0.3774	0.7764	2.353	1.619	0.4231	0.7614	2.266	1.551	1.865	-0.06667
1-day maximum	108.6	1.417	7.09	275.9	12.64	10.08	5.11	275.9	11.41	156.6	0.4
3-day maximum	92.07	1.536	7.063	269.8	10.99	10.58	5.083	269.8	10.52	147.3	0.4
7-day maximum	70.96	1.88	6.887	244.5	10.35	7.711	4.901	244.5	10.19	124.8	0.4
30-day maximum	21.58	3.687	6.021	186.1	10.03	2.033	4.03	182.9	9.993	66.43	0.4
90-day maximum	12.21	2.149	4.734	97.78	8.312	0.8155	2.762	76.37	8.185	28.13	0.4667
Number of zero days	0	0	0	0	0	0	0	0	0	0	0
Base flow index	0.1517	0.9269	0.02977	0.379	0.1973	0.3634	0.0378	0.5622	0.08689	0.1978	0.3333
Parameter Group #3											
Date of minimum	275	0.008197	92	313	276	0.01366	92	313	275	277	-0.04167
Date of maximum	170	0.03552	153	301	174	0.04781	153	203	165.4	174	-0.2941
Parameter Group #4											
Low pulse count	11	0.9091	2	33	11	0.6818	4	35	8	14	0.1
Low pulse duration	3	1.333	1	50.5	3	1.5	1	24.5	2	4	0.1739
High pulse count	6	1	1	25	7	0.9286	2	28	5	8.82	0
High pulse duration	4	2.188	1	112	3.5	2.071	1.5	56	3	6.41	-0.125
The low pulse threshold is			1.81								
The high pulse threshold is			2.9								
Parameter Group #5											
Rise rate	0.205	0.5244	0.11	0.64	0.205	0.4024	0.11	0.56	0.2	0.2341	0.0625
Fall rate	-0.21	-0.3571	-0.57	-0.1	-0.21	-0.2619	-0.53	-0.1	-0.2282	-0.2	-0.2
Number of reversals	162	0.1481	111	196	164	0.1463	91	190	153.2	170.6	0.2
Assessment of Hydrologic Alteration											
	Middle RVA Category			High RVA Category			Low RVA Category				
	Expected	Observed	Alter.	Expected	Observed	Alter.	Expected	Observed	Alter.		
Parameter Group #1											
October	16	15	-0.0625	14	16	0.1429	15	14	-0.06667		
November	15	14	-0.06667	15	15	0	15	16	0.06667		
December	16	17	0.0625	14	13	-0.07143	15	15	0		
January	17	16	-0.05882	13	17	0.3077	15	12	-0.2		
February	16	11	-0.3125	14	19	0.3571	15	15	0		
March	18	11	-0.3889	12	18	0.5	15	16	0.06667		
April	15	15	0	15	16	0.06667	15	14	-0.06667		
May	30	33	0.1	15	12	-0.2					
June	15	19	0.2667	15	4	-0.7333	15	22	0.4667		
July	15	13	-0.1333	15	10	-0.3333	15	22	0.4667		
August	15	14	-0.06667	15	14	-0.06667	15	17	0.1333		
September	15	17	0.1333	15	12	-0.2	15	16	0.06667		
Parameter Group #2											
1-day minimum	45	45	0	0	0		0	0			
3-day minimum	45	45	0	0	0		0	0			
7-day minimum	42	42	0	3	3	0	0	0			
30-day minimum	15	13	-0.1333	15	16	0.06667	15	16	0.06667		
90-day minimum	15	14	-0.06667	15	13	-0.1333	15	18	0.2		
1-day maximum	15	21	0.4	15	6	-0.6	15	18	0.2		
3-day maximum	15	21	0.4	15	6	-0.6	15	18	0.2		
7-day maximum	15	21	0.4	15	6	-0.6	15	18	0.2		
30-day maximum	15	21	0.4	15	3	-0.8	15	21	0.4		
90-day maximum	15	22	0.4667	15	3	-0.8	15	20	0.3333		
Number of zero days	45	45	0	0	0		0	0			
Base flow index	15	20	0.3333	15	22	0.4667	15	3	-0.8		
Parameter Group #3											
Date of minimum	24	23	-0.04167	14	16	0.1429	7	6	-0.1429		
Date of maximum	17	12	-0.2941	13	21	0.6154	15	12	-0.2		
Parameter Group #4											
Low pulse count	20	22	0.1	13	11	-0.1538	12	12	0		
Low pulse duration	23	27	0.1739	14	15	0.07143	8	3	-0.625		
High pulse count	19	19	0	15	16	0.06667	11	10	-0.09091		
High pulse duration	16	14	-0.125	15	14	-0.06667	14	17	0.2143		
Parameter Group #5											
Rise rate	16	17	0.0625	15	12	-0.2	14	16	0.1429		
Fall rate	15	12	-0.2	15	20	0.3333	15	13	-0.1333		
Number of reversals	15	18	0.2	15	17	0.1333	15	10	-0.3333		

Non-Parametric IHA Scorecard								
Fraser River Diversion (Node 2120)								
Pre-impact period: Current Conditions (1947-1991)				Post-impact period: Full Use (1947-1991)				
NormalizationFactor	1			1				
Mean annual flow	7.28			6.71				
Non-Normalized Mean Fl	7.28			6.71				
Annual C. V.	3.16			3.23				
Flow predictability	0.62			0.61				
Constancy/predictability	0.54			0.56				
% of floods in 60d period	0.44			0.44				
Flood-free season	14			14				
	MEDIANS		COEFF. of DISP.		DEVIATION FACTOR		SIGNIFICANCE COUNT	
	Pre	Post	Pre	Post	Medians	C.D.	Medians	C.D.
Parameter Group #1								
October	1.2	1.13	0.75	0.7478	0.05833	0.00295	0.7568	0.99
November	1.89	1.785	0.5172	0.7045	0.05556	0.3621	0.6577	0.4775
December	2.3	2.25	0.2783	0.2556	0.02174	0.0816	0.7197	0.8589
January	2.41	2.53	0.2801	0.2352	0.04979	0.1603	0.1532	0.6957
February	2.48	2.57	0.2913	0.2763	0.03629	0.05171	0.4144	0.9099
March	2.51	2.52	0.3127	0.3492	0.003984	0.1166	0.8929	0.8959
April	1.895	1.895	0.4367	0.4776	0	0.09366	1	0.8498
May	0.75	0.75	0.98	0.9867	0	0.006803	0.4605	0.994
June	9.99	9.755	5.204	5.051	0.02352	0.02939	0.5405	0.951
July	8.64	8.26	0.2286	0.3099	0.04398	0.3558	0.3864	0.2362
August	6.11	5.93	0.2512	0.2968	0.02946	0.1814	0.5135	0.7558
September	3.23	3.13	0.4218	0.4026	0.03096	0.04568	0.8679	0.8599
Parameter Group #2								
1-day minimum	0.75	0.75	0	0	0		0.00	
3-day minimum	0.75	0.75	0	0	0		0.00	
7-day minimum	0.75	0.75	0	0	0		0.00	
30-day minimum	0.9007	0.925	0.4067	0.3932	0.02702	0.03339	0.7848	0.8348
90-day minimum	1.765	1.629	0.3774	0.3475	0.07713	0.07922	0.7317	0.8939
1-day maximum	108.6	103.7	1.417	1.475	0.04468	0.04082	0.8869	0.8689
3-day maximum	92.07	47.29	1.536	2.852	0.4863	0.8562	0.6446	0.3514
7-day maximum	70.96	30.95	1.88	3.828	0.5638	1.037	0.7057	0.3624
30-day maximum	21.58	14.45	3.687	5.148	0.3304	0.3962	0.8408	0.7417
90-day maximum	12.21	9.825	2.149	2.528	0.1956	0.1765	0.7988	0.7267
Number of zero days	0	0	0	0				
Base flow index	0.1517	0.177	0.9269	0.7806	0.1664	0.1578	0.6496	0.6286
Parameter Group #3								
Date of minimum	275	276	0.008197	0.01366	0.005464	0.6667	0.1622	0.3253
Date of maximum	170	170	0.03552	0.04235	0	0.1923	0.7698	0.4074
Parameter Group #4								
Low pulse count	11	10	0.9091	0.75	0.09091	0.175	0.5646	0.5606
Low pulse duration	3	3	1.333	1.5	0	0.125	0.5746	0.6817
High pulse count	6	6	1	1.083	0	0.08333	0.7578	0.7237
High pulse duration	4	4	2.188	2.938	0	0.3429	0.5946	0.6356
Low Pulse Threshold	1.81							
High Pulse Threshold	2.9							
Parameter Group #5								
Rise rate	0.205	0.21	0.5244	0.5476	0.02439	0.04429	0.5636	0.8989
Fall rate	-0.21	-0.21	-0.3571	-0.3333	0	0.06667	0.6066	0.9019
Number of reversals	162	165	0.1481	0.1273	0.01852	0.1409	0.2783	0.6356
EFC Low flows								
October Low Flow	1.185	1.13	0.7595	0.7478	0.04641	0.01541	0.7608	0.9469
November Low Flow	1.89	1.785	0.5172	0.7045	0.05556	0.3621	0.6577	0.4775
December Low Flow	2.3	2.25	0.2783	0.2556	0.02174	0.0816	0.7197	0.8589
January Low Flow	2.41	2.53	0.2801	0.2352	0.04979	0.1603	0.1532	0.6957
February Low Flow	2.48	2.57	0.2913	0.2763	0.03629	0.05171	0.4144	0.9099
March Low Flow	2.51	2.52	0.3127	0.3492	0.003984	0.1166	0.8929	0.8959
April Low Flow	1.895	1.895	0.4367	0.4776	0	0.09366	1	0.8498
May Low Flow	0.75	0.75	0.5	0.6	0	0.2	0.03904	0.8478
June Low Flow	7.265	7.16	0.6831	0.6487	0.01445	0.05025	0.9139	0.8819
July Low Flow	8.36	7.84	0.3044	0.3827	0.0622	0.257	0.4464	0.2803
August Low Flow	6.11	5.93	0.2512	0.2968	0.02946	0.1814	0.5135	0.7558
September Low Flow	3.23	3.13	0.4218	0.4026	0.03096	0.04568	0.8679	0.8599
EFC Parameters								
High flow peak	42.21	32.02	1.041	1.608	0.2413	0.5448	0.8418	0.2643
High flow duration	1	1	0.5	0.5	0	0	0.01802	0.7658
High flow timing	180	179	0.05601	0.07104	0.005464	0.2683	0.6246	0.4645
High flow frequency	1	1	3	2	0	0.3333	0.1261	0.3083
High flow rise rate	19.61	25.77	1.624	1.28	0.3136	0.2118	0.2492	0.7988
High flow fall rate	-21.78	-25.33	-1.544	-1.69	0.1628	0.09428	0.8028	0.8178
Small Flood peak	151.6	133.3	0.2118	0.2337	0.1204	0.1035	0.1231	0.7447
Small Flood duration	13	10.25	1.538	2.183	0.2115	0.4189	0.6867	0.3924
Small Flood timing	171	172.5	0.02903	0.03996	0.008197	0.3765	0.6016	0.4515
Small Flood freq.	0	0	0	0				
Small Flood riserate	58.12	55.83	1.495	1.6	0.03948	0.07024	0.971	0.8719
Small Flood fallrate	-14.66	-32.63	-1.913	-1.634	1.226	0.1458	0.06607	0.7788
Large flood peak	248.2	251.1	0.1322	0.1272	0.01148	0.03773	0.6136	0.8158
Large flood duration	34	27.5	1.169	1.264	0.1912	0.08085	0.8348	0.8408
Large flood timing	171.5	171.5	0.05601	0.06216	0	0.1098	0.9079	0.7127
Large flood freq.	0	0	0	0				
Large flood riserate	12.31	14.36	3.325	12.77	0.1664	2.842	0.8529	0.4154
Large flood fallrate	-17.61	-18.07	-0.5694	-1.018	0.02645	0.7886	0.9439	0.2733
EFC low flow threshold:								
EFC high flow threshold:		11						
EFC small flood minimum peak flow:		108.6						
EFC large flood minimum peak flow:		229.6						

Appendix H-14
Peak Flows

IHA Non-Parametric RVA Scorecard
Fraser River Diversion (Node 2120)

	Pre-impact period: Current Conditions				Post-impact period: Full Use				RVA Boundaries		Hydrologic Alteration (Middle
	Medians	Coeff. of Dispersion	Minimum	Maximum	Medians	Coeff. of Dispersion	Minimum	Maximum	Low	High	Category)
Parameter Group #1											
October	1.2	0.75	0.75	2.81	1.13	0.7478	0.75	2.83	0.8144	1.41	-0.0625
November	1.89	0.5172	0.75	3	1.785	0.7045	0.75	3.03	1.594	2.187	-0.06667
December	2.3	0.2783	0.75	4.9	2.25	0.2556	0.75	4.9	2.061	2.5	0.0625
January	2.41	0.2801	0.75	5.1	2.53	0.2352	0.75	5.1	2.146	2.61	-0.1176
February	2.48	0.2913	0.75	4.25	2.57	0.2763	0.83	4.25	2.289	2.58	-0.3125
March	2.51	0.3127	0.75	3.41	2.52	0.3492	0.75	3.44	2.215	2.61	-0.3889
April	1.895	0.4367	0.75	2.7	1.895	0.4776	0.75	2.73	1.631	2.176	0
May	0.75	0.98	0.75	4.91	0.75	0.9867	0.75	39.4	0.75	1.108	-0.03333
June	9.99	5.204	1.77	177	9.755	5.051	0.785	177	7.826	17.86	-0.06667
July	8.64	0.2286	3.76	110.8	8.26	0.3099	3.21	84.67	7.844	9.069	-0.2
August	6.11	0.2512	1.33	7.91	5.93	0.2968	0.75	7.73	5.562	6.451	-0.06667
September	3.23	0.4218	0.83	4.59	3.13	0.4026	0.75	4.51	2.58	3.512	0
Parameter Group #2											
1-day minimum	0.75	0	0.75	0.75	0.75	0	0.75	0.75	0.75	0.75	0
3-day minimum	0.75	0	0.75	0.75	0.75	0	0.75	0.75	0.75	0.75	0
7-day minimum	0.75	0	0.75	0.8357	0.75	0	0.75	0.8486	0.75	0.75	0
30-day minimum	0.9007	0.4067	0.75	1.732	0.925	0.3932	0.75	1.749	0.8004	1.059	0.06667
90-day minimum	1.765	0.3774	0.7764	2.353	1.629	0.3475	0.7614	2.266	1.551	1.865	0
1-day maximum	108.6	1.417	7.09	275.9	103.7	1.475	5.11	275.9	11.41	156.6	0.1333
3-day maximum	92.07	1.536	7.063	269.8	47.29	2.852	5.083	269.8	10.52	147.3	0.2667
7-day maximum	70.96	1.88	6.887	244.5	30.95	3.828	4.901	244.5	10.19	124.8	0.3333
30-day maximum	21.58	3.687	6.021	186.1	14.45	5.148	4.03	184.1	9.993	66.43	0
90-day maximum	12.21	2.149	4.734	97.78	9.825	2.528	2.762	90.99	8.185	28.13	0.06667
Number of zero days	0	0	0	0	0	0	0	0	0	0	0
Base flow index	0.1517	0.9269	0.02977	0.379	0.177	0.7806	0.0319	0.5622	0.08689	0.1978	0.2
Parameter Group #3											
Date of minimum	275	0.008197	92	313	276	0.01366	92	313	275	277	-0.04167
Date of maximum	170	0.03552	153	301	170	0.04235	153	203	165.4	174	-0.1765
Parameter Group #4											
Low pulse count	11	0.9091	2	33	10	0.75	4	35	8	14	0.05
Low pulse duration	3	1.333	1	50.5	3	1.5	1	24.5	2	4	-0.08696
High pulse count	6	1	1	25	6	1.083	1	28	5	8.82	0
High pulse duration	4	2.188	1	112	4	2.938	1.5	111	3	6.41	-0.0625
The low pulse threshold is			1.81								
The high pulse threshold is			2.9								
Parameter Group #5											
Rise rate	0.205	0.5244	0.11	0.64	0.21	0.5476	0.11	0.55	0.2	0.2341	-0.0625
Fall rate	-0.21	-0.3571	-0.57	-0.1	-0.21	-0.3333	-0.6	-0.1	-0.2282	-0.2	0.06667
Number of reversals	162	0.1481	111	196	165	0.1273	97	192	153.2	170.6	0.2667

Assessment of Hydrologic Alteration

	Middle RVA Category			High RVA Category			Low RVA Category		
	Expected	Observed	Alter.	Expected	Observed	Alter.	Expected	Observed	Alter.
Parameter Group #1									
October	16	15	-0.0625	14	16	0.1429	15	14	-0.06667
November	15	14	-0.06667	15	15	0	15	16	0.06667
December	16	17	0.0625	14	14	0	15	14	-0.06667
January	17	15	-0.1176	13	18	0.3846	15	12	-0.2
February	16	11	-0.3125	14	19	0.3571	15	15	0
March	18	11	-0.3889	12	19	0.5833	15	15	0
April	15	15	0	15	16	0.06667	15	14	-0.06667
May	30	29	-0.03333	15	16	0.06667			
June	15	14	-0.06667	15	14	-0.06667	15	17	0.1333
July	15	12	-0.2	15	12	-0.2	15	21	0.4
August	15	14	-0.06667	15	14	-0.06667	15	17	0.1333
September	15	15	0	15	14	-0.06667	15	16	0.06667
Parameter Group #2									
1-day minimum	45	45	0	0	0		0	0	
3-day minimum	45	45	0	0	0		0	0	
7-day minimum	42	42	0	3	3	0	0	0	
30-day minimum	15	16	0.06667	15	16	0.06667	15	13	-0.1333
90-day minimum	15	15	0	15	15	0	15	15	0
1-day maximum	15	17	0.1333	15	12	-0.2	15	16	0.06667
3-day maximum	15	19	0.2667	15	11	-0.2667	15	15	0
7-day maximum	15	20	0.3333	15	11	-0.2667	15	14	-0.06667
30-day maximum	15	15	0	15	13	-0.1333	15	17	0.1333
90-day maximum	15	16	0.06667	15	13	-0.1333	15	16	0.06667
Number of zero days	45	45	0	0	0		0	0	
Base flow index	15	18	0.2	15	14	-0.06667	15	13	-0.1333
Parameter Group #3									
Date of minimum	24	23	-0.04167	14	16	0.1429	7	6	-0.1429
Date of maximum	17	14	-0.1765	13	15	0.1538	15	16	0.06667
Parameter Group #4									
Low pulse count	20	21	0.05	13	8	-0.3846	12	16	0.3333
Low pulse duration	23	21	-0.08696	14	16	0.1429	8	8	0
High pulse count	19	19	0	15	15	0	11	11	0
High pulse duration	16	15	-0.0625	15	17	0.1333	14	13	-0.07143
Parameter Group #5									
Rise rate	16	15	-0.0625	15	14	-0.06667	14	16	0.1429
Fall rate	15	16	0.06667	15	15	0	15	14	-0.06667
Number of reversals	15	19	0.2667	15	16	0.06667	15	10	-0.3333

Non-Parametric IHA Scorecard								
Jim Creek Diversion (Node 2160)								
Pre-impact period: Current Conditions (1947-1991)				Post-impact period: Alt. 1a (1947-1991)				
NormalizationFactor	1			1				
Mean annual flow	1.14			0.49				
Non-Normalized Mean Fl	1.14			0.49				
Annual C. V.	6.87			10.83				
Flow predictability	0.91			0.94				
Constancy/predictability	0.95			0.97				
% of floods in 60d period	1			1				
Flood-free season	43			46				
	MEDIANS		COEFF. of DISP.		DEVIATION FACTOR		SIGNIFICANCE COUNT	
	Pre	Post	Pre	Post	Medians	C.D.	Medians	C.D.
Parameter Group #1								
October	0	0	0	0				
November	0	0	0	0				
December	0	0	0	0				
January	0	0	0	0				
February	0	0	0	0				
March	0	0	0	0				
April	0	0	0	0				
May	0	0	0	0				
June	0	0	0	0				
July	0	0	0	0				
August	0	0	0	0				
September	0	0	0	0				
Parameter Group #2								
1-day minimum	0	0	0	0				
3-day minimum	0	0	0	0				
7-day minimum	0	0	0	0				
30-day minimum	0	0	0	0				
90-day minimum	0	0	0	0				
1-day maximum	34.43	13.3	1.878	3.489	0.6137	0.858	0.2262	0.1572
3-day maximum	15.78	7.233	3.931	3.659	0.5416	0.06901	0.2042	0.9309
7-day maximum	8.653	3.1	5.508	5.482	0.6417	0.004875	0.2152	0.994
30-day maximum	2.697	0.832	8.501	5.134	0.6915	0.396	0.1722	0.5606
90-day maximum	0.8989	0.4189	8.501	3.399	0.534	0.6001	0.1992	0.3233
Number of zero days	354	359	0.0678	0.03621	0.01412	0.4659	0.1441	0.2152
Base flow index	0	0	0	0				
Parameter Group #3								
Date of minimum	275	275	0	0	0		0.00	
Date of maximum	168	172	0.06557	0.2814	0.02186	3.292	0.2513	0.1752
Parameter Group #4								
Low pulse count	0	0	0	0				
Low pulse duration								
High pulse count	2	2	1.75	1.25	0	0.2857	0.1181	0.5045
High pulse duration	3	2.5	1.583	1.3	0.1667	0.1789	0.6577	0.6667
Low Pulse Threshold	0							
High Pulse Threshold	0							
Parameter Group #5								
Rise rate	2.05	1.8	2.626	4.275	0.122	0.6282	0.8889	0.2923
Fall rate	-2.57	-2.5	-2.375	-2.93	0.02724	0.2334	0.959	0.6597
Number of reversals	5	3	2.8	2.667	0.4	0.04762	0.1101	0.9299
EFC Low flows								
October Low Flow	0	0	0	0				
November Low Flow	0	0	0	0				
December Low Flow	0	0	0	0				
January Low Flow	0	0	0	0				
February Low Flow	0	0	0	0				
March Low Flow	0	0	0	0				
April Low Flow	0	0	0	0				
May Low Flow	0	0	0	0				
June Low Flow	0	0	0	0				
July Low Flow	0	0	0	0				
August Low Flow	0	0	0	0				
September Low Flow	0	0	0	0				
EFC Parameters								
High flow peak	12.47	11.75	0.9313	0.8987	0.05776	0.03503	0.8278	0.9279
High flow duration	2.25	2.25	2.222	1.222	0	0.45	0.957	0.3303
High flow timing	172.3	169.5	0.0526	0.02664	0.01503	0.4935	0.3584	0.3524
High flow frequency	0	0	0	0				
High flow rise rate	7.338	8.157	0.6158	0.7328	0.1118	0.1899	0.3213	0.7928
High flow fall rate	-5.417	-5.85	-1.023	-1.234	0.08	0.2057	0.8669	0.7768
Small Flood peak	56.46	54.2	0.4009	0.4801	0.03999	0.1976	0.6867	0.4575
Small Flood duration	4.75	3	2.684	2	0.3684	0.2549	0.6286	0.5926
Small Flood timing	168.3	171	0.03723	0.05601	0.01503	0.5046	0.5015	0.1952
Small Flood freq.	0	0	0	0				
Small Flood riserate	23.77	34.93	1.662	1.081	0.4693	0.3492	0.2523	0.4955
Small Flood fallrate	-16.81	-29.03	-0.7737	-1.317	0.7269	0.7017	0.01702	0.08008
Large flood peak	100.7	100.2	0.1753	0.2033	0.004768	0.1595	0.9499	0.6897
Large flood duration	22	12	0.5909	1.5	0.4545	1.538	0.4885	0.09209
Large flood timing	164.3	165	0.03381	0.03962	0.004098	0.1717	0.7247	0.7347
Large flood freq.	0	0	0	0				
Large flood riserate	9.433	17.15	1.224	1.272	0.8179	0.03921	0.1652	0.8729
Large flood fallrate	-10.87	-14.72	-0.798	-0.6717	0.3544	0.1583	0.5085	0.7227
EFC low flow threshold:								
EFC high flow threshold:		3						
EFC small flood minimum peak flow:		34.43						
EFC large flood minimum peak flow:		83.95						

Appendix H-14
Peak Flows

IHA Non-Parametric RVA Scorecard
Jim Creek Diversion (Node 2160)

	Pre-impact period: Current Conditions				Post-impact period: Alt. 1a						Hydrologic Alteration
		Coeff. of				Coeff. of			RVA Boundaries		(Middle
	Medians	Dispersion	Minimum	Maximum	Medians	Dispersion	Minimum	Maximum	Low	High	Category)
Parameter Group #1											
October	0	0	0	0	0	0	0	0	0	0	0
November	0	0	0	0	0	0	0	0	0	0	0
December	0	0	0	4.9	0	0	0	0.84	0	0	0.02381
January	0	0	0	3.1	0	0	0	0.33	0	0	0.02381
February	0	0	0	2.6	0	0	0	0.63	0	0	0.05
March	0	0	0	0.2	0	0	0	0.22	0	0	0
April	0	0	0	0	0	0	0	0	0	0	0
May	0	0	0	0	0	0	0	0	0	0	0
June	0	0	0	74.37	0	0	0	69.18	0	0	0.2059
July	0	0	0	0	0	0	0	0	0	0	0
August	0	0	0	0	0	0	0	0	0	0	0
September	0	0	0	0	0	0	0	0	0	0	0
Parameter Group #2											
1-day minimum	0	0	0	0	0	0	0	0	0	0	0
3-day minimum	0	0	0	0	0	0	0	0	0	0	0
7-day minimum	0	0	0	0	0	0	0	0	0	0	0
30-day minimum	0	0	0	0	0	0	0	0	0	0	0
90-day minimum	0	0	0	0	0	0	0	0	0	0	0
1-day maximum	34.43	1.878	0	116.8	13.3	3.489	0	115.8	3.257	57.85	0.06667
3-day maximum	15.78	3.931	0	114.2	7.233	3.659	0	101.7	1.56	54.21	0.3333
7-day maximum	8.653	5.508	0	99.9	3.1	5.482	0	94.02	1.317	28.52	0.1333
30-day maximum	2.697	8.501	0	73.73	0.832	5.134	0	63.67	0.7361	9.191	0.06667
90-day maximum	0.8989	8.501	0	31.73	0.4189	3.399	0	21.9	0.2659	3.064	0.1333
Number of zero days	354	0.0678	262	366	359	0.03621	267	366	345.2	359.8	0
Base flow index	0	0	0	0	0	0	0	0	0	0	0
Parameter Group #3											
Date of minimum	275	0	275	275	275	0	275	275	275	275	0
Date of maximum	168	0.06557	64	358	172	0.2814	43	366	162.2	176.5	-0.06667
Parameter Group #4											
Low pulse count	0	0	0	0	0	0	0	0	0	0	0
Low pulse duration											
High pulse count	2	1.75	0	12	2	1.25	0	10	2	3	-0.1667
High pulse duration	3	1.583	1	47	2.5	1.3	1	13	2	5.07	0.05882
The low pulse threshold is			0								
The high pulse threshold is			0								
Parameter Group #5											
Rise rate	2.05	2.626	0.04	40.53	1.8	4.275	0.08	34.34	0.5269	4.214	-0.4
Fall rate	-2.57	-2.375	-21.31	-0.08	-2.5	-2.93	-34.34	-0.095	-5.178	-0.3232	-0.06667
Number of reversals	5	2.8	0	29	3	2.667	0	39	3.36	12.64	-0.1333

Assessment of Hydrologic Alteration

	Middle RVA Category			High RVA Category			Low RVA Category		
	Expected	Observed	Alter.	Expected	Observed	Alter.	Expected	Observed	Alter.
Parameter Group #1									
October	45	45	0						
November	45	45	0						
December	42	43	0.02381	3	2	-0.3333			
January	42	43	0.02381	3	2	-0.3333			
February	40	42	0.05	5	3	-0.4			
March	44	44	0	1	1	0			
April	45	45	0						
May	45	45	0						
June	34	41	0.2059	11	4	-0.6364			
July	45	45	0						
August	45	45	0						
September	45	45	0						
Parameter Group #2									
1-day minimum	45	45	0	0	0		0	0	
3-day minimum	45	45	0	0	0		0	0	
7-day minimum	45	45	0	0	0		0	0	
30-day minimum	45	45	0	0	0		0	0	
90-day minimum	45	45	0	0	0		0	0	
1-day maximum	15	16	0.06667	15	8	-0.4667	15	21	0.4
3-day maximum	15	20	0.3333	15	4	-0.7333	15	21	0.4
7-day maximum	15	17	0.1333	15	7	-0.5333	15	21	0.4
30-day maximum	15	16	0.06667	15	7	-0.5333	15	22	0.4667
90-day maximum	15	17	0.1333	15	7	-0.5333	15	21	0.4
Number of zero days	15	15	0	15	22	0.4667	15	8	-0.4667
Base flow index	45	45	0	0	0		0	0	
Parameter Group #3									
Date of minimum	45	45	0	0	0		0	0	
Date of maximum	15	14	-0.06667	15	18	0.2	15	13	-0.1333
Parameter Group #4									
Low pulse count	45	45	0	0	0		0	0	
Low pulse duration	0	0		0	0		0	0	
High pulse count	18	15	-0.1667	14	11	-0.2143	13	19	0.4615
High pulse duration	17	18	0.05882	13	8	-0.3846	11	11	0
Parameter Group #5									
Rise rate	15	9	-0.4	13	14	0.07692	13	14	0.07692
Fall rate	15	14	-0.06667	13	12	-0.07692	13	11	-0.1538
Number of reversals	15	13	-0.1333	15	9	-0.4	15	23	0.5333

Non-Parametric IHA Scorecard								
Jim Creek Diversion (Node 2160)								
Pre-impact period: Current Conditions (1947-1991)				Post-impact period: Full Use (1947-1991)				
NormalizationFactor	1			1				
Mean annual flow	1.14			1				
Non-Normalized Mean Fl	1.14			1				
Annual C. V.	6.87			7.49				
Flow predictability	0.91			0.91				
Constancy/predictability	0.95			0.95				
% of floods in 60d period	1			1				
Flood-free season	43			40				
	MEDIANS		COEFF. of DISP.		DEVIATION FACTOR		SIGNIFICANCE COUNT	
	Pre	Post	Pre	Post	Medians	C.D.	Medians	C.D.
Parameter Group #1								
October	0	0	0	0				
November	0	0	0	0				
December	0	0	0	0				
January	0	0	0	0				
February	0	0	0	0				
March	0	0	0	0				
April	0	0	0	0				
May	0	0	0	0				
June	0	0	0	0				
July	0	0	0	0				
August	0	0	0	0				
September	0	0	0	0				
Parameter Group #2								
1-day minimum	0	0	0	0				
3-day minimum	0	0	0	0				
7-day minimum	0	0	0	0				
30-day minimum	0	0	0	0				
90-day minimum	0	0	0	0				
1-day maximum	34.43	26.37	1.878	2.387	0.2341	0.2712	0.8599	0.8098
3-day maximum	15.78	13.3	3.931	4.236	0.1572	0.07756	0.5706	0.7187
7-day maximum	8.653	6.986	5.508	6.174	0.1927	0.1208	0.6276	0.7898
30-day maximum	2.697	2.123	8.501	9.39	0.2126	0.1046	0.7487	0.8138
90-day maximum	0.8989	0.7078	8.501	9.485	0.2126	0.1157	0.8408	0.8198
Number of zero days	354	354	0.0678	0.06356	0	0.0625	0.9369	0.7538
Base flow index	0	0	0	0				
Parameter Group #3								
Date of minimum	275	275	0	0	0		0.00	
Date of maximum	168	169	0.06557	0.05464	0.005464	0.1667	0.8128	0.7207
Parameter Group #4								
Low pulse count	0	0	0	0				
Low pulse duration								
High pulse count	2	3	1.75	1	0.5	0.4286	0.001001	0.1982
High pulse duration	3	2.5	1.583	2	0.1667	0.2632	0.5946	0.4705
Low Pulse Threshold	0							
High Pulse Threshold	0							
Parameter Group #5								
Rise rate	2.05	2.88	2.626	2.093	0.4049	0.2029	0.5375	0.7347
Fall rate	-2.57	-3.81	-2.375	-2.039	0.4825	0.1415	0.3493	0.7247
Number of reversals	5	7	2.8	1.714	0.4	0.3878	0.2102	0.3383
EFC Low flows								
October Low Flow	0	0	0	0				
November Low Flow	0	0	0	0				
December Low Flow	0	0	0	0				
January Low Flow	0	0	0	0				
February Low Flow	0	0	0	0				
March Low Flow	0	0	0	0				
April Low Flow	0	0	0	0				
May Low Flow	0	0	0	0				
June Low Flow	0	0	0	0				
July Low Flow	0	0	0	0				
August Low Flow	0	0	0	0				
September Low Flow	0	0	0	0				
EFC Parameters								
High flow peak	12.47	14.86	0.9313	0.968	0.1919	0.03943	0.3373	0.9229
High flow duration	2.25	2	2.222	1.938	0.1111	0.1281	0.7497	0.8288
High flow timing	172.3	171	0.0526	0.06113	0.006831	0.1623	0.5816	0.6757
High flow frequency	0	0	0	0				
High flow rise rate	7.338	6.888	0.6158	1.23	0.06133	0.998	0.8028	0.1822
High flow fall rate	-5.417	-6.054	-1.023	-1.46	0.1177	0.4265	0.7417	0.6156
Small Flood peak	56.46	58.78	0.4009	0.2718	0.04109	0.3219	0.6196	0.5375
Small Flood duration	4.75	3	2.684	3.125	0.3684	0.1642	0.5075	0.7497
Small Flood timing	168.3	167.5	0.03723	0.0304	0.004098	0.1835	0.8008	0.7227
Small Flood freq.	0	0	0	0				
Small Flood riserate	23.77	31.42	1.662	1.185	0.3216	0.2871	0.5726	0.5706
Small Flood fallrate	-16.81	-26.05	-0.7737	-1.247	0.5497	0.6124	0.06106	0.1191
Large flood peak	100.7	104.2	0.1753	0.1339	0.03506	0.2362	0.5686	0.7548
Large flood duration	22	17	0.5909	0.8824	0.2273	0.4932	0.6366	0.3874
Large flood timing	164.3	174	0.03381	0.05464	0.05328	0.6162	0.3574	0.1882
Large flood freq.	0	0	0	0				
Large flood riserate	9.433	10.41	1.224	2.261	0.1037	0.847	0.7968	0.5516
Large flood fallrate	-10.87	-15.22	-0.798	-1.244	0.4008	0.5593	0.5075	0.4284
EFC low flow threshold:								
EFC high flow threshold:		3						
EFC small flood minimum peak flow:		34.43						
EFC large flood minimum peak flow:		83.95						

IHA Non-Parametric RVA Scorecard											
Jim Creek Diversion (Node 2160)											
											Hydrologic
	Pre-impact period: Current Conditions				Post-impact period: Full Use						Alteration
		Coeff. of				Coeff. of			RVA Boundaries		(Middle
	Medians	Dispersion	Minimum	Maximum	Medians	Dispersion	Minimum	Maximum	Low	High	Category)
Parameter Group #1											
October	0	0	0	0	0	0	0	0	0	0	0
November	0	0	0	0	0	0	0	0	0	0	0
December	0	0	0	4.9	0	0	0	4.9	0	0	0
January	0	0	0	3.1	0	0	0	3.1	0	0	0
February	0	0	0	2.6	0	0	0	2.6	0	0	0
March	0	0	0	0.2	0	0	0	0.22	0	0	0
April	0	0	0	0	0	0	0	0	0	0	0
May	0	0	0	0	0	0	0	14.53	0	0	-0.02222
June	0	0	0	74.37	0	0	0	69.91	0	0	0.08824
July	0	0	0	0	0	0	0	0	0	0	0
August	0	0	0	0	0	0	0	0	0	0	0
September	0	0	0	0	0	0	0	0	0	0	0
Parameter Group #2											
1-day minimum	0	0	0	0	0	0	0	0	0	0	0
3-day minimum	0	0	0	0	0	0	0	0	0	0	0
7-day minimum	0	0	0	0	0	0	0	0	0	0	0
30-day minimum	0	0	0	0	0	0	0	0	0	0	0
90-day minimum	0	0	0	0	0	0	0	0	0	0	0
1-day maximum	34.43	1.878	0	116.8	26.37	2.387	0	117.9	3.257	57.85	-0.06667
3-day maximum	15.78	3.931	0	114.2	13.3	4.236	0	107.4	1.56	54.21	0.2
7-day maximum	8.653	5.508	0	99.9	6.986	6.174	0	97.62	1.317	28.52	0.1333
30-day maximum	2.697	8.501	0	73.73	2.123	9.39	0	69.6	0.7361	9.191	0.06667
90-day maximum	0.8989	8.501	0	31.73	0.7078	9.485	0	28.8	0.2659	3.064	0.06667
Number of zero days	354	0.0678	262	366	354	0.06356	262	366	345.2	359.8	0
Base flow index	0	0	0	0	0	0	0	0	0	0	0
Parameter Group #3											
Date of minimum	275	0	275	275	275	0	275	275	275	275	0
Date of maximum	168	0.06557	64	358	169	0.05464	24	358	162.2	176.5	0.06667
Parameter Group #4											
Low pulse count	0	0	0	0	0	0	0	0	0	0	0
Low pulse duration											
High pulse count	2	1.75	0	12	3	1	0	10	2	3	-0.2222
High pulse duration	3	1.583	1	47	2.5	2	1	50	2	5.07	-0.05882
The low pulse threshold is			0								
The high pulse threshold is			0								
Parameter Group #5											
Rise rate	2.05	2.626	0.04	40.53	2.88	2.093	0.08	53.42	0.5269	4.214	-0.2667
Fall rate	-2.57	-2.375	-21.31	-0.08	-3.81	-2.039	-43.93	-0.095	-5.178	-0.3232	-0.2
Number of reversals	5	2.8	0	29	7	1.714	0	39	3.36	12.64	0.06667
Assessment of Hydrologic Alteration											
	Middle RVA Category			High RVA Category			Low RVA Category				
	Expected	Observed	Alter.	Expected	Observed	Alter.	Expected	Observed	Alter.		
Parameter Group #1											
October	45	45	0								
November	45	45	0								
December	42	42	0	3	3	0					
January	42	42	0	3	3	0					
February	40	40	0	5	5	0					
March	44	44	0	1	1	0					
April	45	45	0								
May	45	44	-0.02222								
June	34	37	0.08824	11	8	-0.2727					
July	45	45	0								
August	45	45	0								
September	45	45	0								
Parameter Group #2											
1-day minimum	45	45	0	0	0		0	0			
3-day minimum	45	45	0	0	0		0	0			
7-day minimum	45	45	0	0	0		0	0			
30-day minimum	45	45	0	0	0		0	0			
90-day minimum	45	45	0	0	0		0	0			
1-day maximum	15	14	-0.06667	15	15	0	15	16	0.06667		
3-day maximum	15	18	0.2	15	11	-0.2667	15	16	0.06667		
7-day maximum	15	17	0.1333	15	12	-0.2	15	16	0.06667		
30-day maximum	15	16	0.06667	15	13	-0.1333	15	16	0.06667		
90-day maximum	15	16	0.06667	15	13	-0.1333	15	16	0.06667		
Number of zero days	15	15	0	15	16	0.06667	15	14	-0.06667		
Base flow index	45	45	0	0	0		0	0			
Parameter Group #3											
Date of minimum	45	45	0	0	0		0	0			
Date of maximum	15	16	0.06667	15	13	-0.1333	15	16	0.06667		
Parameter Group #4											
Low pulse count	45	45	0	0	0		0	0			
Low pulse duration	0	0		0	0		0	0			
High pulse count	18	14	-0.2222	14	16	0.1429	13	15	0.1538		
High pulse duration	17	16	-0.05882	13	11	-0.1538	11	14	0.2727		
Parameter Group #5											
Rise rate	15	11	-0.2667	13	15	0.1538	13	15	0.1538		
Fall rate	15	12	-0.2	13	13	0	13	16	0.2308		
Number of reversals	15	16	0.06667	15	14	-0.06667	15	15	0		

Non-Parametric IHA Scorecard								
St. Louis Creek Diversion (Node 2170)								
Pre-impact period: Current Conditions (1947-1991)				Post-impact period: Alt. 1a (1947-1991)				
NormalizationFactor	1			1				
Mean annual flow	8.54			6.87				
Non-Normalized Mean Fl	8.54			6.87				
Annual C. V.	2.11			2.16				
Flow predictability	0.65			0.72				
Constancy/predictability	0.5			0.59				
% of floods in 60d period	0.7			0.7				
Flood-free season	184			208				
	MEDIANS		COEFF. of DISP.		DEVIATION FACTOR		SIGNIFICANCE COUNT	
	Pre	Post	Pre	Post	Medians	C.D.	Medians	C.D.
Parameter Group #1								
October	3	3	0	0	0		0.00	
November	2.55	2.49	0.3745	0.506	0.02353	0.3512	0.8488	0.4304
December	2.08	2.08	0.4519	0.5361	0	0.1862	0.998	0.7047
January	1.74	1.74	0.4598	0.431	0	0.0625	0.9279	0.8589
February	1.74	1.74	0.2759	0.2759	0	0	0.993	1
March	1.71	1.71	0.3743	0.3743	0	0	0.998	1
April	2.02	2.02	0.4158	0.4134	0	0.005952	1	0.972
May	10	10	0.3	0.296	0	0.01333	0.02402	0.6537
June	10	10	6.08	3.071	0	0.4949	0.07107	0.1421
July	10	10	0.5175	0	0	1	0.00	0.00
August	10	10	0.111	0.2125	0	0.9144	0.001001	0.3443
September	4.145	4.145	0.3752	0.3625	0	0.03376	0.8889	0.8809
Parameter Group #2								
1-day minimum	1.12	1.12	0.8214	0.8214	0	0	0.998	1
3-day minimum	1.26	1.26	0.7222	0.7222	0	0	0.999	1
7-day minimum	1.403	1.403	0.6354	0.6354	0	0	0.999	1
30-day minimum	1.539	1.539	0.5599	0.5599	0	0	0.999	1
90-day minimum	1.645	1.638	0.402	0.3811	0.004457	0.05198	0.8999	0.975
1-day maximum	81.53	70.91	1.28	1.339	0.1303	0.04557	0.4845	0.8058
3-day maximum	79.92	63.5	1.22	1.424	0.2055	0.1667	0.2362	0.3333
7-day maximum	69.86	52.21	1.251	1.563	0.2526	0.249	0.2613	0.2212
30-day maximum	44.88	25.33	1.502	1.819	0.4357	0.211	0.3694	0.5916
90-day maximum	22.34	15.11	1.123	1.024	0.3238	0.08808	0.3263	0.6807
Number of zero days	0	0	0	0				
Base flow index	0.1702	0.2073	1.152	0.9372	0.2177	0.1861	0.2342	0.4825
Parameter Group #3								
Date of minimum	61	61	0.1995	0.1995	0	0	0.999	0.991
Date of maximum	167	166	0.06148	0.09563	0.005464	0.5556	0.8949	0.3574
Parameter Group #4								
Low pulse count	3	3	1.333	1.333	0	0	0.2643	0.8779
Low pulse duration	5.5	5.5	7.455	7.455	0	0	0.9139	0.999
High pulse count	1	1	1	1	0	0	0.00	0.5455
High pulse duration	124	124	0.4637	0.4536	0	0.02174	0.5836	0.991
Low Pulse Threshold	2.1							
High Pulse Threshold	4.66							
Parameter Group #5								
Rise rate	0.205	0.2	1.256	0.8625	0.02439	0.3133	0.2943	0.3093
Fall rate	-0.28	-0.22	-0.7946	-0.8409	0.2143	0.05822	0.1892	0.8919
Number of reversals	66	60	0.4621	0.4083	0.09091	0.1164	0.2783	0.6046
EFC Low flows								
October Low Flow	3	3	0	0	0		0.00	
November Low Flow	2.55	2.49	0.3745	0.506	0.02353	0.3512	0.8488	0.4304
December Low Flow	2.08	2.08	0.4519	0.5361	0	0.1862	0.998	0.7047
January Low Flow	1.74	1.74	0.4598	0.431	0	0.0625	0.9279	0.8589
February Low Flow	1.74	1.74	0.2759	0.2759	0	0	0.993	1
March Low Flow	1.71	1.71	0.3743	0.3743	0	0	0.998	1
April Low Flow	2.02	2.02	0.4158	0.4134	0	0.005952	1	0.972
May Low Flow	7.35	10	0.7082	0.3	0.3605	0.5764	0.02503	0.2893
June Low Flow	10	10	0	0	0		0.00	
July Low Flow	10	10	0	0	0		0.00	
August Low Flow	10	10	0.1425	0.2125	0	0.4912	0.002002	0.6517
September Low Flow	4.145	4.145	0.383	0.3625	0	0.05354	0.8889	0.8228
EFC Parameters								
High flow peak	38.93	46.66	0.6399	0.7438	0.1984	0.1624	0.2022	0.7047
High flow duration	3	2.5	1	1.2	0.1667	0.2	0.5035	0.6727
High flow timing	183	189	0.0929	0.0888	0.03279	0.04412	0.7848	0.7918
High flow frequency	1	1	2.5	2	0	0.2	0.008008	0.8108
High flow rise rate	13.25	14.17	1.934	1.85	0.06984	0.04334	0.8168	0.8799
High flow fall rate	-9.138	-12.13	-1.372	-1.48	0.3278	0.0792	0.2482	0.8258
Small Flood peak	108.1	99.29	0.3102	0.2951	0.08129	0.04851	0.7047	0.9159
Small Flood duration	30	11.25	0.9	1.489	0.625	0.6543	0.2182	0.1502
Small Flood timing	173	171.8	0.03723	0.03176	0.006831	0.1468	0.7568	0.6747
Small Flood freq.	0	0	0	0				
Small Flood riserate	15.22	36.94	1.283	1.149	1.427	0.1042	0.004004	0.7998
Small Flood fallrate	-5.506	-11.14	-1.2	-1.577	1.024	0.3146	0.02402	0.5996
Large flood peak	149.7	149.7	0.1145	0.1145	0	0	0.8839	0.8589
Large flood duration	54.5	37	1.454	1.547	0.3211	0.06407	0.6386	0.8699
Large flood timing	179	179	0.03005	0.03005	0	0	0.8929	0.8328
Large flood freq.	0	0	0	0				
Large flood riserate	4.794	11.53	9.769	4.092	1.405	0.5811	0.1582	0.5536
Large flood fallrate	-7.666	-9.341	-2.416	-1.915	0.2185	0.2073	0.5716	0.7367
EFC low flow threshold:								
EFC high flow threshold:		10.01						
EFC small flood minimum peak flow:		81.53						
EFC large flood minimum peak flow:		139.6						

IHA Non-Parametric RVA Scorecard
St. Louis Creek Diversion (Node 2170)

	Pre-impact period: Current Conditions				Post-impact period: Alt. 1a				RVA Boundaries		Hydrologic Alteration (Middle
	Medians	Coeff. of Dispersion	Minimum	Maximum	Medians	Coeff. of Dispersion	Minimum	Maximum	Low	High	Category)
Parameter Group #1											
October	3	0	0.61	5.26	3	0	0.61	5.27	3	3	0
November	2.55	0.3745	0.51	3.39	2.49	0.506	0.51	3	2.116	2.864	0
December	2.08	0.4519	0.87	3	2.08	0.5361	0.87	3	1.808	2.29	0
January	1.74	0.4598	0.58	3	1.74	0.431	0.58	3	1.59	2.098	0
February	1.74	0.2759	0.59	3	1.74	0.2759	0.59	3	1.564	1.89	0
March	1.71	0.3743	0.56	3	1.71	0.3743	0.56	3	1.513	1.89	0
April	2.02	0.4158	0.82	3	2.02	0.4134	0.82	3	1.749	2.304	0
May	10	0.3	2.39	37.17	10	0.296	2.39	10	7.375	10	0.1034
June	10	6.08	7	122.8	10	3.071	5	122.8	10	54.5	0.07143
July	10	0.5175	7	97.2	10	0	5	97.2	10	10	0.03125
August	10	0.111	4.2	46.69	10	0.2125	4.2	46.69	10	10	0.07407
September	4.145	0.3752	0.91	8.865	4.145	0.3625	0.91	8.865	3.758	4.528	-0.1333
Parameter Group #2											
1-day minimum	1.12	0.8214	0.01	2.27	1.12	0.8214	0.01	2.27	0.749	1.556	0
3-day minimum	1.26	0.7222	0.01	2.343	1.26	0.7222	0.01	2.343	0.7924	1.59	0
7-day minimum	1.403	0.6354	0.01	2.69	1.403	0.6354	0.01	2.69	0.8271	1.59	0
30-day minimum	1.539	0.5599	0.5673	2.897	1.539	0.5599	0.5673	2.897	1.195	1.691	0
90-day minimum	1.645	0.402	0.6656	2.95	1.638	0.3811	0.6656	2.95	1.542	1.845	0.06667
1-day maximum	81.53	1.28	7	161.4	70.91	1.339	7	161.4	63.22	98.54	-0.2
3-day maximum	79.92	1.22	7	159.3	63.5	1.424	7	159.3	46.92	94.47	-0.06667
7-day maximum	69.86	1.251	7	154.6	52.21	1.563	6.439	154.6	38.74	90.69	-0.06667
30-day maximum	44.88	1.502	7	130.6	25.33	1.819	5.336	130.6	17.41	65.28	0.2667
90-day maximum	22.34	1.123	7	82.21	15.11	1.024	5.112	73.58	12.47	32.93	0.4
Number of zero days	0	0	0	0	0	0	0	0	0	0	0
Base flow index	0.1702	1.152	0.00213	0.5548	0.2073	0.9372	0.002233	0.5548	0.1034	0.2135	-0.2
Parameter Group #3											
Date of minimum	61	0.1995	1	335	61	0.1995	1	335	61.72	99.48	0
Date of maximum	167	0.06148	136	187	166	0.09563	136	192	161	173	-0.1429
Parameter Group #4											
Low pulse count	3	1.333	0	10	3	1.333	0	10	2	5	-0.125
Low pulse duration	5.5	7.455	1	184	5.5	7.455	1	214	3.5	19.94	0
High pulse count	1	1	1	4	1	1	1	4	1	1	0
High pulse duration	124	0.4637	1	124	124	0.4536	1	124	111.3	124	0
The low pulse threshold is			2.1								
The high pulse threshold is			4.66								
Parameter Group #5											
Rise rate	0.205	1.256	0.055	3.39	0.2	0.8625	0.05	2.04	0.1436	0.3082	0.4667
Fall rate	-0.28	-0.7946	-2.29	-0.06	-0.22	-0.8409	-1.59	-0.06	-0.391	-0.2036	0.06667
Number of reversals	66	0.4621	22	116	60	0.4083	22	114	54.36	77.64	0.2

Assessment of Hydrologic Alteration

	Middle RVA Category			High RVA Category			Low RVA Category		
	Expected	Observed	Alter.	Expected	Observed	Alter.	Expected	Observed	Alter.
Parameter Group #1									
October	35	35	0	2	1	-0.5	8	9	0.125
November	15	15	0	15	14	-0.06667	15	16	0.06667
December	17	17	0	13	12	-0.07692	15	16	0.06667
January	17	17	0	15	15	0	13	13	0
February	17	17	0	13	13	0	15	15	0
March	17	17	0	13	13	0	15	15	0
April	15	15	0	15	15	0	15	15	0
May	29	32	0.1034	1	0	-1	15	13	-0.1333
June	28	30	0.07143	15	9	-0.4	2	6	2
July	32	33	0.03125	11	6	-0.4545	2	6	2
August	27	29	0.07407	4	1	-0.75	14	15	0.07143
September	15	13	-0.1333	15	17	0.1333	15	15	0
Parameter Group #2									
1-day minimum	15	15	0	15	15	0	15	15	0
3-day minimum	19	19	0	11	11	0	15	15	0
7-day minimum	17	17	0	13	13	0	15	15	0
30-day minimum	15	15	0	15	15	0	15	15	0
90-day minimum	15	16	0.06667	15	14	-0.06667	15	15	0
1-day maximum	15	12	-0.2	15	13	-0.1333	15	20	0.3333
3-day maximum	15	14	-0.06667	15	13	-0.1333	15	18	0.2
7-day maximum	15	14	-0.06667	15	12	-0.2	15	19	0.2667
30-day maximum	15	19	0.2667	15	7	-0.5333	15	19	0.2667
90-day maximum	15	21	0.4	15	4	-0.7333	15	20	0.3333
Number of zero days	45	45	0	0	0		0	0	
Base flow index	15	12	-0.2	15	22	0.4667	15	11	-0.2667
Parameter Group #3									
Date of minimum	15	15	0	15	15	0	15	15	0
Date of maximum	21	18	-0.1429	12	13	0.08333	12	14	0.1667
Parameter Group #4									
Low pulse count	24	21	-0.125	14	15	0.07143	7	9	0.2857
Low pulse duration	16	16	0	14	14	0	13	13	0
High pulse count	33	33	0	12	12	0	0	0	
High pulse duration	30	30	0	0	0		15	15	0
Parameter Group #5									
Rise rate	15	22	0.4667	15	7	-0.5333	15	16	0.06667
Fall rate	15	16	0.06667	15	20	0.3333	15	9	-0.4
Number of reversals	15	18	0.2	15	9	-0.4	15	18	0.2

Non-Parametric IHA Scorecard								
St. Louis Creek Diversion (Node 2170)								
Pre-impact period: Current Conditions (1947-1991)				Post-impact period: Full Use (1947-1991)				
NormalizationFactor	1			1				
Mean annual flow	8.54			8.23				
Non-Normalized Mean Flo	8.54			8.23				
Annual C. V.	2.11			2.16				
Flow predictability	0.65			0.65				
Constancy/predictability	0.5			0.51				
% of floods in 60d period	0.7			0.7				
Flood-free season	184			195				
	MEDIANS		COEFF. of DISP.		DEVIATION FACTOR		SIGNIFICANCE COUNT	
	Pre	Post	Pre	Post	Medians	C.D.	Medians	C.D.
Parameter Group #1								
October	3	3	0	0	0		0.00	
November	2.55	2.49	0.3745	0.506	0.02353	0.3512	0.8659	0.4695
December	2.08	2.08	0.4519	0.5361	0	0.1862	0.999	0.7087
January	1.74	1.74	0.4598	0.431	0	0.0625	0.9179	0.8739
February	1.74	1.74	0.2759	0.2759	0	0	0.998	1
March	1.71	1.71	0.3743	0.3743	0	0	0.999	1
April	2.02	2.02	0.4158	0.4134	0	0.005952	0.999	0.975
May	10	10	0.3	0.296	0	0.01333	0.01602	0.6476
June	10	10	6.08	6.029	0	0.00847	0.9169	0.991
July	10	10	0.5175	0	0	1	0.00	0.00
August	10	10	0.111	0.2125	0	0.9144	0.001001	0.2873
September	4.145	4.145	0.3752	0.3625	0	0.03376	0.8969	0.8729
Parameter Group #2								
1-day minimum	1.12	1.12	0.8214	0.8214	0	0	0.997	1
3-day minimum	1.26	1.26	0.7222	0.7222	0	0	1	1
7-day minimum	1.403	1.403	0.6354	0.6354	0	0	0.998	1
30-day minimum	1.539	1.539	0.5599	0.5599	0	0	0.994	1
90-day minimum	1.645	1.638	0.402	0.3811	0.004457	0.05198	0.9059	0.974
1-day maximum	81.53	80.45	1.28	1.286	0.01325	0.004056	0.8949	0.993
3-day maximum	79.92	74.65	1.22	1.302	0.06594	0.06693	0.6537	0.7508
7-day maximum	69.86	67.25	1.251	1.335	0.03732	0.06739	0.7848	0.7077
30-day maximum	44.88	42.31	1.502	1.506	0.05733	0.002451	0.8428	0.994
90-day maximum	22.34	22.82	1.123	1.068	0.02134	0.04892	0.9379	0.8098
Number of zero days	0	0	0	0				
Base flow index	0.1702	0.1829	1.152	1.087	0.07445	0.05604	0.8699	0.8408
Parameter Group #3								
Date of minimum	61	61	0.1995	0.1995	0	0	0.998	0.993
Date of maximum	167	168	0.06148	0.06011	0.005464	0.02222	0.7518	0.971
Parameter Group #4								
Low pulse count	3	3	1.333	1.333	0	0	0.2553	0.8619
Low pulse duration	5.5	5.5	7.455	7.455	0	0	0.9299	0.999
High pulse count	1	1	1	1	0	0	0.00	0.4775
High pulse duration	124	124	0.4637	0.4597	0	0.008696	0.5706	0.983
Low Pulse Threshold	2.1							
High Pulse Threshold	4.66							
Parameter Group #5								
Rise rate	0.205	0.205	1.256	1.366	0	0.08738	0.991	0.7257
Fall rate	-0.28	-0.23	-0.7946	-1.065	0.1786	0.3405	0.6647	0.3453
Number of reversals	66	62	0.4621	0.5161	0.06061	0.1169	0.3964	0.5796
EFC Low flows								
October Low Flow	3	3	0	0	0		0.00	
November Low Flow	2.55	2.49	0.3745	0.506	0.02353	0.3512	0.8659	0.4695
December Low Flow	2.08	2.08	0.4519	0.5361	0	0.1862	0.999	0.7087
January Low Flow	1.74	1.74	0.4598	0.431	0	0.0625	0.9179	0.8739
February Low Flow	1.74	1.74	0.2759	0.2759	0	0	0.998	1
March Low Flow	1.71	1.71	0.3743	0.3743	0	0	0.999	1
April Low Flow	2.02	2.02	0.4158	0.4134	0	0.005952	0.999	0.975
May Low Flow	7.35	7.49	0.7082	0.9346	0.01905	0.3197	0.8729	0.5816
June Low Flow	10	10	0	0	0		0.00	
July Low Flow	10	10	0	0	0		0.00	
August Low Flow	10	10	0.1425	0.2283	0	0.6018	0.004004	0.4835
September Low Flow	4.145	4.145	0.383	0.3776	0	0.01417	0.8969	0.963
EFC Parameters								
High flow peak	38.93	39.42	0.6399	0.6093	0.01259	0.04771	0.969	0.8949
High flow duration	3	2.5	1	1.55	0.1667	0.55	0.5636	0.1792
High flow timing	183	182.8	0.0929	0.08572	0.001366	0.07721	0.964	0.7397
High flow frequency	1	1	2.5	2	0	0.2	0.0951	0.7307
High flow rise rate	13.25	14.8	1.934	1.215	0.1174	0.3718	0.6867	0.2693
High flow fall rate	-9.138	-13.27	-1.372	-0.8238	0.4517	0.3995	0.03203	0.1712
Small Flood peak	108.1	110.1	0.3102	0.3027	0.01846	0.02398	0.8989	0.9349
Small Flood duration	30	32	0.9	0.8125	0.06667	0.09722	0.7818	0.7718
Small Flood timing	173	170	0.03723	0.03279	0.01639	0.1193	0.4765	0.7668
Small Flood freq.	0	0	0	0				
Small Flood riserate	15.22	14.08	1.283	1.088	0.07493	0.1522	0.8148	0.7317
Small Flood fallrate	-5.506	-6.135	-1.2	-0.9805	0.1143	0.1827	0.8278	0.7067
Large flood peak	149.7	149.7	0.1145	0.1145	0	0	0.9059	0.8418
Large flood duration	54.5	50.5	1.454	1.45	0.07339	0.002499	0.9009	0.9189
Large flood timing	179	179	0.03005	0.03005	0	0	0.9089	0.8108
Large flood freq.	0	0	0	0				
Large flood riserate	4.794	4.871	9.769	9.577	0.01592	0.01962	0.5986	0.8458
Large flood fallrate	-7.666	-8.753	-2.416	-2.073	0.1418	0.1419	0.6246	0.7648
EFC low flow threshold:								
EFC high flow threshold:		10.01						
EFC small flood minimum peak flow:		81.53						
EFC large flood minimum peak flow:		139.6						

IHA Non-Parametric RVA Scorecard
St. Louis Creek Diversion (Node 2170)

	Pre-impact period: Current Conditions				Post-impact period: Full Use				RVA Boundaries		Hydrologic Alteration (Middle
	Medians	Coeff. of Dispersion	Minimum	Maximum	Medians	Coeff. of Dispersion	Minimum	Maximum	Low	High	Category)
Parameter Group #1											
October	3	0	0.61	5.26	3	0	0.61	5.27	3	3	-0.02857
November	2.55	0.3745	0.51	3.39	2.49	0.506	0.51	3.39	2.116	2.864	0
December	2.08	0.4519	0.87	3	2.08	0.5361	0.87	3	1.808	2.29	0
January	1.74	0.4598	0.58	3	1.74	0.431	0.58	3	1.59	2.098	0
February	1.74	0.2759	0.59	3	1.74	0.2759	0.59	3	1.564	1.89	0
March	1.71	0.3743	0.56	3	1.71	0.3743	0.56	3	1.513	1.89	0
April	2.02	0.4158	0.82	3	2.02	0.4134	0.82	3	1.749	2.304	0
May	10	0.3	2.39	37.17	10	0.296	2.39	27.39	7.375	10	0.06897
June	10	6.08	7	122.8	10	6.029	5	122.8	10	54.5	-0.1786
July	10	0.5175	7	97.2	10	0	5	97.2	10	10	-0.03125
August	10	0.111	4.2	46.69	10	0.2125	4.2	46.69	10	10	0
September	4.145	0.3752	0.91	8.865	4.145	0.3625	0.91	8.865	3.758	4.528	-0.1333
Parameter Group #2											
1-day minimum	1.12	0.8214	0.01	2.27	1.12	0.8214	0.01	2.27	0.749	1.556	0
3-day minimum	1.26	0.7222	0.01	2.343	1.26	0.7222	0.01	2.343	0.7924	1.59	0
7-day minimum	1.403	0.6354	0.01	2.69	1.403	0.6354	0.01	2.69	0.8271	1.59	0
30-day minimum	1.539	0.5599	0.5673	2.897	1.539	0.5599	0.5673	2.897	1.195	1.691	0
90-day minimum	1.645	0.402	0.6656	2.95	1.638	0.3811	0.6656	2.95	1.542	1.845	0.06667
1-day maximum	81.53	1.28	7	161.4	80.45	1.286	7	161.4	63.22	98.54	-0.06667
3-day maximum	79.92	1.22	7	159.3	74.65	1.302	7	159.3	46.92	94.47	0
7-day maximum	69.86	1.251	7	154.6	67.25	1.335	6.439	154.6	38.74	90.69	-0.06667
30-day maximum	44.88	1.502	7	130.6	42.31	1.506	5.336	130.6	17.41	65.28	-0.06667
90-day maximum	22.34	1.123	7	82.21	22.82	1.068	5.112	79.41	12.47	32.93	-0.06667
Number of zero days	0	0	0	0	0	0	0	0	0	0	0
Base flow index	0.1702	1.152	0.00213	0.5548	0.1829	1.087	0.00203	0.5548	0.1034	0.2135	0
Parameter Group #3											
Date of minimum	61	0.1995	1	335	61	0.1995	1	335	61.72	99.48	0
Date of maximum	167	0.06148	136	187	168	0.06011	136	192	161	173	0
Parameter Group #4											
Low pulse count	3	1.333	0	10	3	1.333	0	10	2	5	-0.125
Low pulse duration	5.5	7.455	1	184	5.5	7.455	1	214	3.5	19.94	0
High pulse count	1	1	1	4	1	1	1	4	1	1	-0.0303
High pulse duration	124	0.4637	1	124	124	0.4597	1	124	111.3	124	-0.03333
The low pulse threshold is			2.1								
The high pulse threshold is			4.66								
Parameter Group #5											
Rise rate	0.205	1.256	0.055	3.39	0.205	1.366	0.05	2.04	0.1436	0.3082	0.2667
Fall rate	-0.28	-0.7946	-2.29	-0.06	-0.23	-1.065	-2.03	-0.06	-0.391	-0.2036	0
Number of reversals	66	0.4621	22	116	62	0.5161	22	116	54.36	77.64	0.2

Assessment of Hydrologic Alteration

	Middle RVA Category			High RVA Category			Low RVA Category		
	Expected	Observed	Alter.	Expected	Observed	Alter.	Expected	Observed	Alter.
Parameter Group #1									
October	35	34	-0.02857	2	2	0	8	9	0.125
November	15	15	0	15	14	-0.06667	15	16	0.06667
December	17	17	0	13	12	-0.07692	15	16	0.06667
January	17	17	0	15	15	0	13	13	0
February	17	17	0	13	13	0	15	15	0
March	17	17	0	13	13	0	15	15	0
April	15	15	0	15	15	0	15	15	0
May	29	31	0.06897	1	1	0	15	13	-0.1333
June	28	23	-0.1786	15	16	0.06667	2	6	2
July	32	31	-0.03125	11	8	-0.2727	2	6	2
August	27	27	0	4	3	-0.25	14	15	0.07143
September	15	13	-0.1333	15	17	0.1333	15	15	0
Parameter Group #2									
1-day minimum	15	15	0	15	15	0	15	15	0
3-day minimum	19	19	0	11	11	0	15	15	0
7-day minimum	17	17	0	13	13	0	15	15	0
30-day minimum	15	15	0	15	15	0	15	15	0
90-day minimum	15	16	0.06667	15	14	-0.06667	15	15	0
1-day maximum	15	14	-0.06667	15	15	0	15	16	0.06667
3-day maximum	15	15	0	15	15	0	15	15	0
7-day maximum	15	14	-0.06667	15	15	0	15	16	0.06667
30-day maximum	15	14	-0.06667	15	15	0	15	16	0.06667
90-day maximum	15	14	-0.06667	15	14	-0.06667	15	17	0.1333
Number of zero days	45	45	0	0	0		0	0	
Base flow index	15	15	0	15	16	0.06667	15	14	-0.06667
Parameter Group #3									
Date of minimum	15	15	0	15	15	0	15	15	0
Date of maximum	21	21	0	12	12	0	12	12	0
Parameter Group #4									
Low pulse count	24	21	-0.125	14	15	0.07143	7	9	0.2857
Low pulse duration	16	16	0	14	14	0	13	13	0
High pulse count	33	32	-0.0303	12	13	0.08333	0	0	
High pulse duration	30	29	-0.03333	0	0		15	16	0.06667
Parameter Group #5									
Rise rate	15	19	0.2667	15	13	-0.1333	15	13	-0.1333
Fall rate	15	15	0	15	16	0.06667	15	14	-0.06667
Number of reversals	15	18	0.2	15	13	-0.1333	15	14	-0.06667

Non-Parametric IHA Scorecard								
St. Louis Creek and Tributaries Diversion (Node 2180)								
Pre-impact period: Current Conditions (1947-1991)				Post-impact period: Alt. 1a (1947-1991)				
NormalizationFactor	1			1				
Mean annual flow	3.7			1.99				
Non-Normalized Mean Flo	3.7			1.99				
Annual C. V.	4.15			6.01				
Flow predictability	0.89			0.95				
Constancy/predictability	0.93			0.97				
% of floods in 60d period	1			1				
Flood-free season	33			127				
	MEDIANS		COEFF. of DISP.		DEVIATION	FACTOR	SIGNIFICANCE	COUNT
	Pre	Post	Pre	Post	Medians	C.D.	Medians	C.D.
Parameter Group #1								
October	0	0	0	0				
November	0	0	0	0				
December	0	0	0	0				
January	0	0	0	0				
February	0	0	0	0				
March	0	0	0	0				
April	0	0	0	0				
May	0	0	0	0				
June	0	0	0	0				
July	0	0	0	0				
August	0	0	0	0				
September	0	0	0	0				
Parameter Group #2								
1-day minimum	0	0	0	0				
3-day minimum	0	0	0	0				
7-day minimum	0	0	0	0				
30-day minimum	0	0	0	0				
90-day minimum	0	0	0	0				
1-day maximum	67.4	51.83	1.48	1.725	0.231	0.1652	0.2663	0.3183
3-day maximum	65.94	47.51	1.39	1.696	0.2795	0.22	0.3303	0.3483
7-day maximum	56.97	33.97	1.443	2.17	0.4037	0.5037	0.2272	0.1491
30-day maximum	34.32	7.926	1.783	4.944	0.7691	1.773	0.3373	0.1411
90-day maximum	11.44	2.642	2.129	5.071	0.7691	1.382	0.3453	0.1842
Number of zero days	348	361	0.1293	0.06094	0.03736	0.5287	0.06206	0.03003
Base flow index	0	0	0	0				
Parameter Group #3								
Date of minimum	275	275	0	0	0		0.00	
Date of maximum	178	188	0.291	0.2828	0.05464	0.02817	0.06907	0.4635
Parameter Group #4								
Low pulse count	0	0	0	0				
Low pulse duration								
High pulse count	2	1	1.5	3	0.5	1	0.4014	0.05105
High pulse duration	5	3	3	0.6667	0.4	0.7778	0.04805	0.1582
Low Pulse Threshold	0							
High Pulse Threshold	0							
Parameter Group #5								
Rise rate	6.38	10.9	1.616	3.14	0.7085	0.9428	0.04204	0.04705
Fall rate	-4.955	-6.76	-1.345	-2.633	0.3643	0.9576	0.2102	0.1972
Number of reversals	9	3	2.111	4	0.6667	0.8947	0.2232	0.1351
EFC Low flows								
October Low Flow	0	0	0	0				
November Low Flow	0	0	0	0				
December Low Flow	0	0	0	0				
January Low Flow	0	0	0	0				
February Low Flow	0	0	0	0				
March Low Flow	0	0	0	0				
April Low Flow	0	0	0	0				
May Low Flow	0	0	0	0				
June Low Flow	0	0	0	0				
July Low Flow	0	0	0	0				
August Low Flow	0	0	0	0				
September Low Flow	0	0	0	0				
EFC Parameters								
High flow peak	37.84	39.9	0.522	0.2053	0.05458	0.6068	0.2022	0.2482
High flow duration	3	2	1.667	1	0.3333	0.4	0.2042	0.5235
High flow timing	187	186	0.06557	0.05601	0.005464	0.1458	0.8458	0.5095
High flow frequency	1	0	2	0	1	1	0.00	0.00
High flow rise rate	26.37	36.22	0.8236	0.6448	0.3737	0.2171	0.07708	0.4815
High flow fall rate	-15.37	-20.25	-1.338	-0.8281	0.3172	0.381	0.2112	0.2603
Small Flood peak	90.62	81.7	0.3043	0.3503	0.09838	0.1513	0.4565	0.6827
Small Flood duration	24.5	9.75	0.9592	1.179	0.602	0.2297	0.1141	0.5475
Small Flood timing	173	175	0.03586	0.02903	0.01093	0.1905	0.3373	0.6547
Small Flood freq.	0	0	0	0				
Small Flood riserate	12.26	31.52	1.516	1.373	1.571	0.09457	0.003003	0.8699
Small Flood fallrate	-6.764	-15.71	-1.284	-1.249	1.323	0.02771	0.005005	0.965
Large flood peak	127.6	127.6	0.1145	0.1145	0	0	0.9149	0.8829
Large flood duration	50	29	1.625	2.069	0.42	0.2732	0.6056	0.6537
Large flood timing	179	179	0.03005	0.03005	0	0	0.9129	0.8519
Large flood freq.	0	0	0	0				
Large flood riserate	4.369	19.84	20.15	4.68	3.541	0.7677	0.2503	0.5506
Large flood fallrate	-9.268	-11.6	-3.148	-2.449	0.2512	0.2218	0.5936	0.7528
EFC low flow threshold:								
EFC high flow threshold:		5						
EFC small flood minimum peak flow:		67.4						
EFC large flood minimum peak flow:		118.9						

Appendix H-14
Peak Flows

IHA Non-Parametric RVA Scorecard
St. Louis Creek and Tributaries Diversion (Node 2180)

	Pre-impact period: Current Conditions				Post-impact period: Alt. 1a						Hydrologic Alteration
		Coeff. of				Coeff. of			RVA Boundaries		(Middle
	Medians	Dispersion	Minimum	Maximum	Medians	Dispersion	Minimum	Maximum	Low	High	Category)
Parameter Group #1											
October	0	0	0	4.25	0	0	0	0	0	0	0.02273
November	0	0	0	2.85	0	0	0	0	0	0	0.04651
December	0	0	0	2.25	0	0	0	0	0	0	0.04651
January	0	0	0	2.05	0	0	0	0	0	0	0.04651
February	0	0	0	1.65	0	0	0	0	0	0	0.04651
March	0	0	0	0	0	0	0	0	0	0	0
April	0	0	0	0	0	0	0	0	0	0	0
May	0	0	0	2.29	0	0	0	0	0	0	0.02273
June	0	0	0	104.6	0	0	0	104.6	0	45.29	0.2333
July	0	0	0	82.8	0	0	0	82.8	0	0	0.1143
August	0	0	0	39.77	0	0	0	39.77	0	0	0.07317
September	0	0	0	0	0	0	0	0	0	0	0
Parameter Group #2											
1-day minimum	0	0	0	0	0	0	0	0	0	0	0
3-day minimum	0	0	0	0	0	0	0	0	0	0	0
7-day minimum	0	0	0	0	0	0	0	0	0	0	0
30-day minimum	0	0	0	0	0	0	0	0	0	0	0
90-day minimum	0	0	0	0.2058	0	0	0	0	0	0	0.02273
1-day maximum	67.4	1.48	0	137.5	51.83	1.725	0	137.5	44.31	83.98	-0.3333
3-day maximum	65.94	1.39	0	135.7	47.51	1.696	0	135.7	26.79	80.45	-0.2
7-day maximum	56.97	1.443	0	131.7	33.97	2.17	0	131.7	11.48	75.74	-0.1333
30-day maximum	34.32	1.783	0	111.3	7.926	4.944	0	111.3	2.679	51	0.3333
90-day maximum	11.44	2.129	0	67.13	2.642	5.071	0	60.89	1.279	17.74	0.2667
Number of zero days	348	0.1293	172	366	361	0.06094	292	366	329	358.6	0.125
Base flow index	0	0	0	0	0	0	0	0	0	0	0
Parameter Group #3											
Date of minimum	275	0	275	275	275	0	275	275	275	275	0
Date of maximum	178	0.291	151	312	188	0.2828	157	275	172.2	186.8	-0.2667
Parameter Group #4											
Low pulse count	0	0	0	0	0	0	0	0	0	0	0
Low pulse duration											
High pulse count	2	1.5	0	8	1	3	0	11	1	3	-0.1739
High pulse duration	5	3	1	104	3	0.6667	1	73	3	14.78	-0.1429
The low pulse threshold is			0								
The high pulse threshold is			0								
Parameter Group #5											
Rise rate	6.38	1.616	0.09	66.19	10.9	3.14	0.55	120.2	4.136	8.779	-0.6364
Fall rate	-4.955	-1.345	-36.69	-0.1	-6.76	-2.633	-39.57	-0.64	-7.327	-3.436	-0.2727
Number of reversals	9	2.111	0	59	3	4	0	49	5	15	-0.2778

Assessment of Hydrologic Alteration

	Middle RVA Category			High RVA Category			Low RVA Category		
	Expected	Observed	Alter.	Expected	Observed	Alter.	Expected	Observed	Alter.
Parameter Group #1									
October	44	45	0.02273	1	0	-1			
November	43	45	0.04651	2	0	-1			
December	43	45	0.04651	2	0	-1			
January	43	45	0.04651	2	0	-1			
February	43	45	0.04651	2	0	-1			
March	45	45	0						
April	45	45	0						
May	44	45	0.02273	1	0	-1			
June	30	37	0.2333	15	8	-0.4667			
July	35	39	0.1143	10	6	-0.4			
August	41	44	0.07317	4	1	-0.75			
September	45	45	0						
Parameter Group #2									
1-day minimum	45	45	0	0	0		0	0	
3-day minimum	45	45	0	0	0		0	0	
7-day minimum	45	45	0	0	0		0	0	
30-day minimum	45	45	0	0	0		0	0	
90-day minimum	44	45	0.02273	1	0	-1	0	0	
1-day maximum	15	10	-0.3333	15	13	-0.1333	15	22	0.4667
3-day maximum	15	12	-0.2	15	12	-0.2	15	21	0.4
7-day maximum	15	13	-0.1333	15	11	-0.2667	15	21	0.4
30-day maximum	15	20	0.3333	15	4	-0.7333	15	21	0.4
90-day maximum	15	19	0.2667	15	5	-0.6667	15	21	0.4
Number of zero days	16	18	0.125	15	24	0.6	14	3	-0.7857
Base flow index	45	45	0	0	0		0	0	
Parameter Group #3									
Date of minimum	45	45	0	0	0		0	0	
Date of maximum	15	11	-0.2667	15	23	0.5333	15	11	-0.2667
Parameter Group #4									
Low pulse count	45	45	0	0	0		0	0	
Low pulse duration	0	0		0	0		0	0	
High pulse count	23	19	-0.1739	10	8	-0.2	12	18	0.5
High pulse duration	14	12	-0.1429	11	3	-0.7273	8	12	0.5
Parameter Group #5									
Rise rate	11	4	-0.6364	11	16	0.4545	11	7	-0.3636
Fall rate	11	8	-0.2727	11	7	-0.3636	11	12	0.09091
Number of reversals	18	13	-0.2778	13	7	-0.4615	14	25	0.7857

Non-Parametric IHA Scorecard								
St. Louis Creek and Tributaries Diversion (Node 2180)								
Pre-impact period: Current Conditions (1947-1991)				Post-impact period: Full Use (1947-1991)				
NormalizationFactor	1			1				
Mean annual flow	3.7			3.43				
Non-Normalized Mean Fl	3.7			3.43				
Annual C. V.	4.15			4.37				
Flow predictability	0.89			0.9				
Constancy/predictability	0.93			0.94				
% of floods in 60d period	1			1				
Flood-free season	33			44				
	MEDIANS		COEFF. of DISP.		DEVIATION FACTOR		SIGNIFICANCE COUNT	
	Pre	Post	Pre	Post	Medians	C.D.	Medians	C.D.
Parameter Group #1								
October	0	0	0	0				
November	0	0	0	0				
December	0	0	0	0				
January	0	0	0	0				
February	0	0	0	0				
March	0	0	0	0				
April	0	0	0	0				
May	0	0	0	0				
June	0	0	0	0				
July	0	0	0	0				
August	0	0	0	0				
September	0	0	0	0				
Parameter Group #2								
1-day minimum	0	0	0	0				
3-day minimum	0	0	0	0				
7-day minimum	0	0	0	0				
30-day minimum	0	0	0	0				
90-day minimum	0	0	0	0				
1-day maximum	67.4	65.94	1.48	1.513	0.02166	0.02214	0.8128	0.8799
3-day maximum	65.94	58.36	1.39	1.571	0.1149	0.1298	0.6787	0.4164
7-day maximum	56.97	56.58	1.443	1.516	0.006846	0.05075	0.9459	0.7598
30-day maximum	34.32	30.93	1.783	1.935	0.09896	0.08568	0.8889	0.8428
90-day maximum	11.44	10.31	2.129	2.246	0.09896	0.05512	0.8899	0.9279
Number of zero days	348	347	0.1293	0.1167	0.002874	0.09741	0.9219	0.7207
Base flow index	0	0	0	0				
Parameter Group #3								
Date of minimum	275	275	0	0	0		0.00	
Date of maximum	178	177	0.291	0.2951	0.005464	0.01408	0.7888	0.8408
Parameter Group #4								
Low pulse count	0	0	0	0				
Low pulse duration								
High pulse count	2	2	1.5	1.5	0	0	0.2743	0.8078
High pulse duration	5	4	3	2.219	0.2	0.2604	0.6637	0.5285
Low Pulse Threshold	0							
High Pulse Threshold	0							
Parameter Group #5								
Rise rate	6.38	6.36	1.616	1.645	0.003135	0.01774	0.985	0.982
Fall rate	-4.955	-5.95	-1.345	-1.002	0.2008	0.255	0.7077	0.5125
Number of reversals	9	9	2.111	2	0	0.05263	0.7878	0.8649
EFC Low flows								
October Low Flow	0	0	0	0				
November Low Flow	0	0	0	0				
December Low Flow	0	0	0	0				
January Low Flow	0	0	0	0				
February Low Flow	0	0	0	0				
March Low Flow	0	0	0	0				
April Low Flow	0	0	0	0				
May Low Flow	0	0	0	0				
June Low Flow	0	0	0	0				
July Low Flow	0	0	0	0				
August Low Flow	0	0	0	0				
September Low Flow	0	0	0	0				
EFC Parameters								
High flow peak	37.84	39.28	0.522	0.428	0.03819	0.1802	0.5846	0.6587
High flow duration	3	3	1.667	1	0	0.4	0.4304	0.3063
High flow timing	187	187.5	0.06557	0.05464	0.002732	0.1667	0.9389	0.5175
High flow frequency	1	1	2	2	0	0	0.1261	0.6667
High flow rise rate	26.37	28.03	0.8236	0.861	0.06322	0.04549	0.6116	0.8959
High flow fall rate	-15.37	-15.14	-1.338	-1.201	0.01522	0.1026	0.8308	0.7768
Small Flood peak	90.62	90.62	0.3043	0.3501	0	0.1506	0.983	0.6106
Small Flood duration	24.5	21	0.9592	0.9405	0.1429	0.0195	0.8128	0.975
Small Flood timing	173	173	0.03586	0.03074	0	0.1429	0.6787	0.7698
Small Flood freq.	0	0	0	0				
Small Flood riserate	12.26	13.57	1.516	1.29	0.1069	0.1493	0.5175	0.8639
Small Flood fallrate	-6.764	-10.21	-1.284	-1.669	0.5092	0.2993	0.1752	0.4625
Large flood peak	127.6	127.6	0.1145	0.1145	0	0	0.9159	0.8759
Large flood duration	50	38.5	1.625	2.045	0.23	0.2587	0.8498	0.6947
Large flood timing	179	179	0.03005	0.03005	0	0	0.9099	0.8549
Large flood freq.	0	0	0	0				
Large flood riserate	4.369	7.001	20.15	12.73	0.6023	0.3681	0.4424	0.7487
Large flood fallrate	-9.268	-11.25	-3.148	-2.587	0.2136	0.1782	0.6376	0.8238
EFC low flow threshold:								
EFC high flow threshold:		5						
EFC small flood minimum peak flow:		67.4						
EFC large flood minimum peak flow:		118.9						

Appendix H-14
Peak Flows

IHA Non-Parametric RVA Scorecard
St. Louis Creek and Tributaries Diversion (Node 2180)

	Pre-impact period: Current Conditions				Post-impact period: Full Use				RVA Boundaries		Hydrologic Alteration (Middle Category)
	Medians	Coeff. of Dispersion	Minimum	Maximum	Medians	Coeff. of Dispersion	Minimum	Maximum	Low	High	
Parameter Group #1											
October	0	0	0	4.25	0	0	0	4.05	0	0	0
November	0	0	0	2.85	0	0	0	2.85	0	0	0.02326
December	0	0	0	2.25	0	0	0	2.05	0	0	0.02326
January	0	0	0	2.05	0	0	0	2.05	0	0	0.02326
February	0	0	0	1.65	0	0	0	1.65	0	0	0
March	0	0	0	0	0	0	0	0	0	0	0
April	0	0	0	0	0	0	0	0	0	0	0
May	0	0	0	2.29	0	0	0	23.35	0	0	0
June	0	0	0	104.6	0	0	0	104.6	0	45.29	0.03333
July	0	0	0	82.8	0	0	0	82.8	0	0	0.08571
August	0	0	0	39.77	0	0	0	39.77	0	0	0.02439
September	0	0	0	0	0	0	0	0	0	0	0
Parameter Group #2											
1-day minimum	0	0	0	0	0	0	0	0	0	0	0
3-day minimum	0	0	0	0	0	0	0	0	0	0	0
7-day minimum	0	0	0	0	0	0	0	0	0	0	0
30-day minimum	0	0	0	0	0	0	0	0	0	0	0
90-day minimum	0	0	0	0.2058	0	0	0	0	0	0	0.02273
1-day maximum	67.4	1.48	0	137.5	65.94	1.513	0	137.5	44.31	83.98	-0.1333
3-day maximum	65.94	1.39	0	135.7	58.36	1.571	0	135.7	26.79	80.45	-0.06667
7-day maximum	56.97	1.443	0	131.7	56.58	1.516	0	131.7	11.48	75.74	0.06667
30-day maximum	34.32	1.783	0	111.3	30.93	1.935	0	111.3	2.679	51	0
90-day maximum	11.44	2.129	0	67.13	10.31	2.246	0	66.74	1.279	17.74	0
Number of zero days	348	0.1293	172	366	347	0.1167	197	366	329	358.6	-0.125
Base flow index	0	0	0	0	0	0	0	0	0	0	0
Parameter Group #3											
Date of minimum	275	0	275	275	275	0	275	275	275	275	0
Date of maximum	178	0.291	151	312	177	0.2951	24	275	172.2	186.8	-0.2
Parameter Group #4											
Low pulse count	0	0	0	0	0	0	0	0	0	0	0
Low pulse duration											
High pulse count	2	1.5	0	8	2	1.5	0	7	1	3	0
High pulse duration	5	3	1	104	4	2.219	1	97	3	14.78	0.1429
The low pulse threshold is			0								
The high pulse threshold is			0								
Parameter Group #5											
Rise rate	6.38	1.616	0.09	66.19	6.36	1.645	0.075	44.11	4.136	8.779	0
Fall rate	-4.955	-1.345	-36.69	-0.1	-5.95	-1.002	-42.01	-0.07	-7.327	-3.436	0
Number of reversals	9	2.111	0	59	9	2	0	51	5	15	0

Assessment of Hydrologic Alteration

	Middle RVA Category			High RVA Category			Low RVA Category		
	Expected	Observed	Alter.	Expected	Observed	Alter.	Expected	Observed	Alter.
Parameter Group #1									
October	44	44	0	1	1	0			
November	43	44	0.02326	2	1	-0.5			
December	43	44	0.02326	2	1	-0.5			
January	43	44	0.02326	2	1	-0.5			
February	43	43	0	2	2	0			
March	45	45	0						
April	45	45	0						
May	44	44	0	1	1	0			
June	30	31	0.03333	15	14	-0.06667			
July	35	38	0.08571	10	7	-0.3			
August	41	42	0.02439	4	3	-0.25			
September	45	45	0						
Parameter Group #2									
1-day minimum	45	45	0	0	0		0	0	
3-day minimum	45	45	0	0	0		0	0	
7-day minimum	45	45	0	0	0		0	0	
30-day minimum	45	45	0	0	0		0	0	
90-day minimum	44	45	0.02273	1	0	-1	0	0	
1-day maximum	15	13	-0.1333	15	15	0	15	17	0.1333
3-day maximum	15	14	-0.06667	15	14	-0.06667	15	17	0.1333
7-day maximum	15	16	0.06667	15	13	-0.1333	15	16	0.06667
30-day maximum	15	15	0	15	14	-0.06667	15	16	0.06667
90-day maximum	15	15	0	15	14	-0.06667	15	16	0.06667
Number of zero days	16	14	-0.125	15	17	0.1333	14	14	0
Base flow index	45	45	0	0	0		0	0	
Parameter Group #3									
Date of minimum	45	45	0	0	0		0	0	
Date of maximum	15	12	-0.2	15	17	0.1333	15	16	0.06667
Parameter Group #4									
Low pulse count	45	45	0	0	0		0	0	
Low pulse duration	0	0		0	0		0	0	
High pulse count	23	23	0	10	9	-0.1	12	13	0.08333
High pulse duration	14	16	0.1429	11	7	-0.3636	8	9	0.125
Parameter Group #5									
Rise rate	11	11	0	11	9	-0.1818	11	12	0.09091
Fall rate	11	11	0	11	10	-0.09091	11	11	0
Number of reversals	18	18	0	13	13	0	14	14	0

Non-Parametric IHA Scorecard								
King Creek Diversion (Node 2220)								
Pre-impact period: Current Conditions (1947-1991)				Post-impact period: Alt. 1a (1947-1991)				
NormalizationFactor	1			1				
Mean annual flow	0.16			0.09				
Non-Normalized Mean Fl	0.16			0.09				
Annual C. V.	4.3			6.34				
Flow predictability	0.9			0.96				
Constancy/predictability	0.94			0.97				
% of floods in 60d period	1			1				
Flood-free season	33			93				
	MEDIANS		COEFF. of DISP.		DEVIATION FACTOR		SIGNIFICANCE COUNT	
	Pre	Post	Pre	Post	Medians	C.D.	Medians	C.D.
Parameter Group #1								
October	0	0	0	0				
November	0	0	0	0				
December	0	0	0	0				
January	0	0	0	0				
February	0	0	0	0				
March	0	0	0	0				
April	0	0	0	0				
May	0	0	0	0				
June	0	0	0	0				
July	0	0	0	0				
August	0	0	0	0				
September	0	0	0	0				
Parameter Group #2								
1-day minimum	0	0	0	0				
3-day minimum	0	0	0	0				
7-day minimum	0	0	0	0				
30-day minimum	0	0	0	0				
90-day minimum	0	0	0	0				
1-day maximum	3	2.3	1.533	1.913	0.2333	0.2476	0.3804	0.2472
3-day maximum	2.8	2.033	1.476	1.877	0.2738	0.2715	0.3243	0.2573
7-day maximum	2.543	0.8714	1.511	3.893	0.6573	1.576	0.2933	0.1231
30-day maximum	1.523	0.2033	1.769	8.09	0.8665	3.573	0.2953	0.1181
90-day maximum	0.5078	0.06778	2.136	8.189	0.8665	2.834	0.2793	0.1361
Number of zero days	351	362	0.114	0.05249	0.03134	0.5394	0.08208	0.1161
Base flow index	0	0	0	0				
Parameter Group #3								
Date of minimum	275	275	0	0	0		0.00	
Date of maximum	177	189	0.291	0.2828	0.06557	0.02817	0.08909	0.3934
Parameter Group #4								
Low pulse count	0	0	0	0				
Low pulse duration								
High pulse count	2	1	2	3	0.5	0.5	0.4024	0.3293
High pulse duration	4	2	2.719	2.25	0.5	0.1724	0.1742	0.7898
Low Pulse Threshold	0							
High Pulse Threshold	0							
Parameter Group #5								
Rise rate	0.375	1.4	2.7	1.411	2.733	0.4775	0.004004	0.1772
Fall rate	-0.3	-0.5	-0.6667	-2.8	0.6667	3.2	0.06707	0.02803
Number of reversals	7	1	2	7	0.8571	2.5	0.1762	0.09009
EFC Low flows								
October Low Flow	0	0	0	0				
November Low Flow	0	0	0	0				
December Low Flow	0	0	0	0				
January Low Flow	0	0	0	0				
February Low Flow	0	0	0	0				
March Low Flow	0	0	0	0				
April Low Flow	0	0	0	0				
May Low Flow	0	0	0	0				
June Low Flow	0	0	0	0				
July Low Flow	0	0	0	0				
August Low Flow	0	0	0	0				
September Low Flow	0	0	0	0				
EFC Parameters								
High flow peak	2	2.028	0.1875	0.2219	0.01375	0.1837	0.7958	0.4875
High flow duration	2	1.75	1.5	1.071	0.125	0.2857	0.2993	0.7808
High flow timing	180	189	0.08128	0.04986	0.04918	0.3866	0.3784	0.3874
High flow frequency	1	0	2	0	1	1	0.00	0.00
High flow rise rate	1.9	1.85	0.4868	0.2777	0.02632	0.4296	0.8128	0.6166
High flow fall rate	-0.6667	-1.375	-2.337	-0.8636	1.063	0.6305	0.04104	0.1562
Small Flood peak	4	4	0.3	0.1562	0	0.4792	0.9499	0.2543
Small Flood duration	21	8	0.881	1.375	0.619	0.5608	0.1061	0.2222
Small Flood timing	173	176	0.03825	0.02869	0.01639	0.25	0.2693	0.4915
Small Flood freq.	0	0	0	0				
Small Flood riserate	0.4857	2.08	3.493	1.385	3.282	0.6036	0.008008	0.1722
Small Flood fallrate	-0.5167	-1.5	-1.794	-1.291	1.903	0.2805	0.02903	0.5786
Large flood peak	6.25	6.1	0.06	0.04918	0.024	0.1803	0.7087	0.5576
Large flood duration	17	9	3.265	7.667	0.4706	1.348	0.7387	0.1912
Large flood timing	174	176	0.02527	0.03005	0.01093	0.1892	0.6797	0.6707
Large flood freq.	0	0	0	0				
Large flood riserate	0.7552	3.2	5.932	1.787	3.237	0.6988	0.2563	0.5836
Large flood fallrate	-0.6763	-0.8	-6.771	-7.486	0.183	0.1056	0.8468	0.7437
EFC low flow threshold:								
EFC high flow threshold:		1.5						
EFC small flood minimum peak flow:		3						
EFC large flood minimum peak flow:		5.92						

Appendix H-14
Peak Flows

IHA Non-Parametric RVA Scorecard											
King Creek Diversion (Node 2220)											
											Hydrologic
	Pre-impact period: Current Conditions				Post-impact period: Alt. 1a						Alteration
		Coeff. of				Coeff. of			RVA Boundaries		(Middle
	Medians	Dispersion	Minimum	Maximum	Medians	Dispersion	Minimum	Maximum	Low	High	Category)
Parameter Group #1											
October	0	0	0	0.2	0	0	0	0	0	0	0.02273
November	0	0	0	0.2	0	0	0	0	0	0	0.02273
December	0	0	0	0.1	0	0	0	0	0	0	0.02273
January	0	0	0	0.1	0	0	0	0	0	0	0.04651
February	0	0	0	0.1	0	0	0	0	0	0	0.04651
March	0	0	0	0	0	0	0	0	0	0	0
April	0	0	0	0	0	0	0	0	0	0	0
May	0	0	0	0	0	0	0	0	0	0	0
June	0	0	0	4.6	0	0	0	4.6	0	1.973	0.2333
July	0	0	0	4.9	0	0	0	4.9	0	0	0.05263
August	0	0	0	1.8	0	0	0	1.8	0	0	0.07317
September	0	0	0	0	0	0	0	0	0	0	0
Parameter Group #2											
1-day minimum	0	0	0	0	0	0	0	0	0	0	0
3-day minimum	0	0	0	0	0	0	0	0	0	0	0
7-day minimum	0	0	0	0	0	0	0	0	0	0	0
30-day minimum	0	0	0	0	0	0	0	0	0	0	0
90-day minimum	0	0	0	0.008889	0	0	0	0	0	0	0.02273
1-day maximum	3	1.533	0	6.5	2.3	1.913	0	6.4	1.972	4.2	-0.3125
3-day maximum	2.8	1.476	0	6.033	2.033	1.877	0	6.033	0.6993	3.655	-0.1333
7-day maximum	2.543	1.511	0	5.857	0.8714	3.893	0	5.857	0.2997	3.469	-0.06667
30-day maximum	1.523	1.769	0	5.293	0.2033	8.09	0	5.293	0.1	2.083	0.125
90-day maximum	0.5078	2.136	0	3.25	0.06778	8.189	0	2.943	0.03813	0.8151	0.2
Number of zero days	351	0.114	175	366	362	0.05249	295	366	330	363.6	0.1765
Base flow index	0	0	0	0	0	0	0	0	0	0	0
Parameter Group #3											
Date of minimum	275	0	275	275	275	0	275	275	275	275	0
Date of maximum	177	0.291	151	301	189	0.2828	157	337	171.2	188.8	-0.2667
Parameter Group #4											
Low pulse count	0	0	0	0	0	0	0	0	0	0	0
Low pulse duration											
High pulse count	2	2	0	7	1	3	0	12	1	3	-0.1111
High pulse duration	4	2.719	1	50	2	2.25	1	70	2	6.44	-0.3571
The low pulse threshold is			0								
The high pulse threshold is			0								
Parameter Group #5											
Rise rate	0.375	2.7	0.1	3.1	1.4	1.411	0.01	6.1	0.3	0.633	-0.4167
Fall rate	-0.3	-0.6667	-3.1	-0.1	-0.5	-2.8	-6.1	-0.01	-0.4	-0.2	-0.5833
Number of reversals	7	2	0	45	1	7	0	41	1.36	10.64	-0.2
Assessment of Hydrologic Alteration											
	Middle RVA Category			High RVA Category			Low RVA Category				
	Expected	Observed	Alter.	Expected	Observed	Alter.	Expected	Observed	Alter.		
Parameter Group #1											
October	44	45	0.02273	1	0	-1					
November	44	45	0.02273	1	0	-1					
December	44	45	0.02273	1	0	-1					
January	43	45	0.04651	2	0	-1					
February	43	45	0.04651	2	0	-1					
March	45	45	0								
April	45	45	0								
May	45	45	0								
June	30	37	0.2333	15	8	-0.4667					
July	38	40	0.05263	7	5	-0.2857					
August	41	44	0.07317	4	1	-0.75					
September	45	45	0								
Parameter Group #2											
1-day minimum	45	45	0	0	0		0	0			
3-day minimum	45	45	0	0	0		0	0			
7-day minimum	45	45	0	0	0		0	0			
30-day minimum	45	45	0	0	0		0	0			
90-day minimum	44	45	0.02273	1	0	-1	0	0			
1-day maximum	16	11	-0.3125	14	12	-0.1429	15	22	0.4667		
3-day maximum	15	13	-0.1333	15	11	-0.2667	15	21	0.4		
7-day maximum	15	14	-0.06667	15	10	-0.3333	15	21	0.4		
30-day maximum	16	18	0.125	15	6	-0.6	14	21	0.5		
90-day maximum	15	18	0.2	15	6	-0.6	15	21	0.4		
Number of zero days	17	20	0.1765	15	22	0.4667	13	3	-0.7692		
Base flow index	45	45	0	0	0		0	0			
Parameter Group #3											
Date of minimum	45	45	0	0	0		0	0			
Date of maximum	15	11	-0.2667	15	23	0.5333	15	11	-0.2667		
Parameter Group #4											
Low pulse count	45	45	0	0	0		0	0			
Low pulse duration	0	0		0	0		0	0			
High pulse count	18	16	-0.1111	14	9	-0.3571	13	20	0.5385		
High pulse duration	14	9	-0.3571	10	6	-0.4	8	10	0.25		
Parameter Group #5											
Rise rate	12	7	-0.4167	10	14	0.4	10	4	-0.6		
Fall rate	12	5	-0.5833	10	6	-0.4	10	14	0.4		
Number of reversals	15	12	-0.2	15	9	-0.4	15	24	0.6		

Non-Parametric IHA Scorecard								
King Creek Diversion (Node 2220)								
Pre-impact period: Current Conditions (1947-1991)				Post-impact period: Full Use (1947-1991)				
NormalizationFactor	1			1				
Mean annual flow	0.16			0.15				
Non-Normalized Mean Fl	0.16			0.15				
Annual C. V.	4.3			4.53				
Flow predictability	0.9			0.91				
Constancy/predictability	0.94			0.94				
% of floods in 60d period	1			1				
Flood-free season	33			44				
	MEDIANS		COEFF. of DISP.		DEVIATION FACTOR		SIGNIFICANCE COUNT	
	Pre	Post	Pre	Post	Medians	C.D.	Medians	C.D.
Parameter Group #1								
October	0	0	0	0				
November	0	0	0	0				
December	0	0	0	0				
January	0	0	0	0				
February	0	0	0	0				
March	0	0	0	0				
April	0	0	0	0				
May	0	0	0	0				
June	0	0	0	0				
July	0	0	0	0				
August	0	0	0	0				
September	0	0	0	0				
Parameter Group #2								
1-day minimum	0	0	0	0				
3-day minimum	0	0	0	0				
7-day minimum	0	0	0	0				
30-day minimum	0	0	0	0				
90-day minimum	0	0	0	0				
1-day maximum	3	2.9	1.533	1.586	0.03333	0.03448	0.8098	0.8138
3-day maximum	2.8	2.6	1.476	1.577	0.07143	0.06824	0.6767	0.5876
7-day maximum	2.543	2.457	1.511	1.57	0.03371	0.03873	0.7678	0.7157
30-day maximum	1.523	1.31	1.769	2.053	0.14	0.1607	0.8438	0.7568
90-day maximum	0.5078	0.4367	2.136	2.282	0.14	0.06873	0.8448	0.9029
Number of zero days	351	351	0.114	0.1083	0	0.05	0.983	0.8729
Base flow index	0	0	0	0				
Parameter Group #3								
Date of minimum	275	275	0	0	0		0.00	
Date of maximum	177	176	0.291	0.2951	0.005464	0.01408	0.7508	0.7928
Parameter Group #4								
Low pulse count	0	0	0	0				
Low pulse duration								
High pulse count	2	2	2	2	0	0	0.2693	0.6006
High pulse duration	4	4	2.719	3	0	0.1034	0.7648	0.7798
Low Pulse Threshold	0							
High Pulse Threshold	0							
Parameter Group #5								
Rise rate	0.375	0.35	2.7	1.143	0.06667	0.5767	0.8539	0.5666
Fall rate	-0.3	-0.25	-0.6667	-1.56	0.1667	1.34	0.6917	0.1562
Number of reversals	7	5	2	3	0.2857	0.5	0.6416	0.3033
EFC Low flows								
October Low Flow	0	0	0	0				
November Low Flow	0	0	0	0				
December Low Flow	0	0	0	0				
January Low Flow	0	0	0	0				
February Low Flow	0	0	0	0				
March Low Flow	0	0	0	0				
April Low Flow	0	0	0	0				
May Low Flow	0	0	0	0				
June Low Flow	0	0	0	0				
July Low Flow	0	0	0	0				
August Low Flow	0	0	0	0				
September Low Flow	0	0	0	0				
EFC Parameters								
High flow peak	2	2	0.1875	0.2063	0	0.1	0.7467	0.8278
High flow duration	2	2	1.5	1.375	0	0.08333	0.2823	0.8168
High flow timing	180	181.8	0.08128	0.08197	0.009563	0.008403	0.9199	0.975
High flow frequency	1	1	2	2	0	0	0.2973	0.5265
High flow rise rate	1.9	1.813	0.4868	0.4759	0.04605	0.02255	0.7257	0.962
High flow fall rate	-0.6667	-0.7833	-2.337	-1.927	0.175	0.1756	0.5966	0.6416
Small Flood peak	4	4.05	0.3	0.2716	0.0125	0.09465	0.9029	0.6987
Small Flood duration	21	15.5	0.881	1.677	0.2619	0.9041	0.6456	0.1401
Small Flood timing	173	173.5	0.03825	0.0403	0.002732	0.05357	0.8338	0.9069
Small Flood freq.	0	0	0	0				
Small Flood riserate	0.4857	0.6214	3.493	4.154	0.2794	0.1892	0.3554	0.7618
Small Flood fallrate	-0.5167	-0.5655	-1.794	-2.122	0.09447	0.1832	0.8579	0.7628
Large flood peak	6.25	6.25	0.06	0.06	0	0	0.8539	0.8078
Large flood duration	17	16	3.265	3.5	0.05882	0.07207	0.956	0.8348
Large flood timing	174	174	0.02527	0.02527	0	0	0.9159	0.8168
Large flood freq.	0	0	0	0				
Large flood riserate	0.7552	0.6972	5.932	6.385	0.07685	0.07623	0.9439	0.8288
Large flood fallrate	-0.6763	-0.97	-6.771	-4.821	0.4344	0.2881	0.6787	0.7227
EFC low flow threshold:								
EFC high flow threshold:		1.5						
EFC small flood minimum peak flow:		3						
EFC large flood minimum peak flow:		5.92						

IHA Non-Parametric RVA Scorecard
King Creek Diversion (Node 2220)

	Pre-impact period: Current Conditions				Post-impact period: Full Use				RVA Boundaries		Hydrologic Alteration (Middle
	Medians	Coeff. of Dispersion	Minimum	Maximum	Medians	Coeff. of Dispersion	Minimum	Maximum	Low	High	Category)
Parameter Group #1											
October	0	0	0	0.2	0	0	0	0	0	0	0.02273
November	0	0	0	0.2	0	0	0	0.2	0	0	0
December	0	0	0	0.1	0	0	0	0.1	0	0	0
January	0	0	0	0.1	0	0	0	0.1	0	0	0.02326
February	0	0	0	0.1	0	0	0	0.1	0	0	0
March	0	0	0	0	0	0	0	0	0	0	0
April	0	0	0	0	0	0	0	0	0	0	0
May	0	0	0	0	0	0	0	1.1	0	0	-0.02222
June	0	0	0	4.6	0	0	0	4.6	0	1.973	0.03333
July	0	0	0	4.9	0	0	0	4.9	0	0	0.02632
August	0	0	0	1.8	0	0	0	1.8	0	0	0.02439
September	0	0	0	0	0	0	0	0	0	0	0
Parameter Group #2											
1-day minimum	0	0	0	0	0	0	0	0	0	0	0
3-day minimum	0	0	0	0	0	0	0	0	0	0	0
7-day minimum	0	0	0	0	0	0	0	0	0	0	0
30-day minimum	0	0	0	0	0	0	0	0	0	0	0
90-day minimum	0	0	0	0.008889	0	0	0	0	0	0	0.02273
1-day maximum	3	1.533	0	6.5	2.9	1.586	0	6.5	1.972	4.2	-0.125
3-day maximum	2.8	1.476	0	6.033	2.6	1.577	0	6.033	0.6993	3.655	0
7-day maximum	2.543	1.511	0	5.857	2.457	1.57	0	5.857	0.2997	3.469	-0.06667
30-day maximum	1.523	1.769	0	5.293	1.31	2.053	0	5.293	0.1	2.083	0
90-day maximum	0.5078	2.136	0	3.25	0.4367	2.282	0	3.228	0.03813	0.8151	0
Number of zero days	351	0.114	175	366	351	0.1083	204	366	330	363.6	0.1176
Base flow index	0	0	0	0	0	0	0	0	0	0	0
Parameter Group #3											
Date of minimum	275	0	275	275	275	0	275	275	275	275	0
Date of maximum	177	0.291	151	301	176	0.2951	24	337	171.2	188.8	-0.06667
Parameter Group #4											
Low pulse count	0	0	0	0	0	0	0	0	0	0	0
Low pulse duration											
High pulse count	2	2	0	7	2	2	0	10	1	3	-0.05556
High pulse duration	4	2.719	1	50	4	3	1	46	2	6.44	-0.1429
The low pulse threshold is			0								
The high pulse threshold is			0								
Parameter Group #5											
Rise rate	0.375	2.7	0.1	3.1	0.35	1.143	0.01	4.2	0.3	0.633	0
Fall rate	-0.3	-0.6667	-3.1	-0.1	-0.25	-1.56	-3.7	-0.01	-0.4	-0.2	0.08333
Number of reversals	7	2	0	45	5	3	0	43	1.36	10.64	-0.2

Assessment of Hydrologic Alteration

	Middle RVA Category			High RVA Category			Low RVA Category		
	Expected	Observed	Alter.	Expected	Observed	Alter.	Expected	Observed	Alter.
Parameter Group #1									
October	44	45	0.02273	1	0	-1			
November	44	44	0	1	1	0			
December	44	44	0	1	1	0			
January	43	44	0.02326	2	1	-0.5			
February	43	43	0	2	2	0			
March	45	45	0						
April	45	45	0						
May	45	44	-0.02222						
June	30	31	0.03333	15	14	-0.06667			
July	38	39	0.02632	7	6	-0.1429			
August	41	42	0.02439	4	3	-0.25			
September	45	45	0						
Parameter Group #2									
1-day minimum	45	45	0	0	0		0	0	
3-day minimum	45	45	0	0	0		0	0	
7-day minimum	45	45	0	0	0		0	0	
30-day minimum	45	45	0	0	0		0	0	
90-day minimum	44	45	0.02273	1	0	-1	0	0	
1-day maximum	16	14	-0.125	14	14	0	15	17	0.1333
3-day maximum	15	15	0	15	13	-0.1333	15	17	0.1333
7-day maximum	15	14	-0.06667	15	14	-0.06667	15	17	0.1333
30-day maximum	16	16	0	15	14	-0.06667	14	15	0.07143
90-day maximum	15	15	0	15	15	0	15	15	0
Number of zero days	17	19	0.1176	15	15	0	13	11	-0.1538
Base flow index	45	45	0	0	0		0	0	
Parameter Group #3									
Date of minimum	45	45	0	0	0		0	0	
Date of maximum	15	14	-0.06667	15	16	0.06667	15	15	0
Parameter Group #4									
Low pulse count	45	45	0	0	0		0	0	
Low pulse duration	0	0		0	0		0	0	
High pulse count	18	17	-0.05556	14	14	0	13	14	0.07692
High pulse duration	14	12	-0.1429	10	13	0.3	8	6	-0.25
Parameter Group #5									
Rise rate	12	12	0	10	7	-0.3	10	12	0.2
Fall rate	12	13	0.08333	10	8	-0.2	10	10	0
Number of reversals	15	12	-0.2	15	17	0.1333	15	16	0.06667

Non-Parametric IHA Scorecard								
Vasquez Creek Diversion (Node 2280)								
Pre-impact period: Current Conditions (1947-1991)				Post-impact period: Alt. 1a (1947-1991)				
NormalizationFactor	1			1				
Mean annual flow	10.94			7.6				
Non-Normalized Mean Fl	10.94			7.6				
Annual C. V.	2.81			3.01				
Flow predictability	0.78			0.82				
Constancy/predictability	0.65			0.67				
% of floods in 60d period	0.78			0.78				
Flood-free season	77			180				
	MEDIANS		COEFF. of DISP.		DEVIATION FACTOR		SIGNIFICANCE COUNT	
	Pre	Post	Pre	Post	Medians	C.D.	Medians	C.D.
Parameter Group #1								
October	3	3	0	0.1733	0		0.00	
November	3	3	0	0.01917	0		0.00	
December	3	3	0	0.2867	0		0.00	
January	3	3	0	0	0		0.00	
February	3	3	0.07667	0.07667	0	0	0.00	0.9199
March	3	3	0.1683	0.1683	0	0	0.06106	1
April	3	3	0	0	0		0.00	
May	8	8	0	0	0		0.00	
June	8	8	11.77	0	0	1	0.00	0.2212
July	8	8	0	0	0		0.00	
August	8	8	0	0	0		0.00	
September	5.5	5.62	0.03182	0.1508	0.02182	3.739	0.00	0.1151
Parameter Group #2								
1-day minimum	2.27	2.23	0.6233	0.6345	0.01762	0.01794	0.6997	0.964
3-day minimum	2.43	2.43	0.4527	0.4527	0	0	0.999	1
7-day minimum	2.743	2.743	0.3281	0.3281	0	0	0.999	1
30-day minimum	2.954	2.913	0.2074	0.2257	0.01399	0.08811	0.8509	0.8038
90-day minimum	2.985	2.955	0.09677	0.09774	0.009939	0.01004	0.8128	0.974
1-day maximum	136.5	99.68	1.327	1.668	0.2696	0.2576	0.2673	0.2563
3-day maximum	123.2	75.9	1.42	1.746	0.3839	0.2295	0.2873	0.4575
7-day maximum	113.6	39.43	1.345	2.871	0.653	1.135	0.3634	0.1401
30-day maximum	51.3	15.33	1.924	3.196	0.7011	0.6617	0.3083	0.2933
90-day maximum	22.43	10.44	1.714	1.564	0.5344	0.08709	0.2302	0.8208
Number of zero days	0	0	0	0				
Base flow index	0.2969	0.4284	1.109	0.7403	0.443	0.3324	0.05405	0.2302
Parameter Group #3								
Date of minimum	275	293	0.474	0.4057	0.09836	0.1441	0.5135	0.5225
Date of maximum	167	159	0.1079	0.1093	0.04372	0.01266	0.1512	0.8498
Parameter Group #4								
Low pulse count	1	1	4.5	5	0	0.1111	0.04304	0.5816
Low pulse duration	3.5	3	9.143	1.75	0.1429	0.8086	0.6817	0.5155
High pulse count	1	1	0	0	0		0.00	
High pulse duration	124	124	0.1694	0.1371	0	0.1905	0.00	0.7858
Low Pulse Threshold	3							
High Pulse Threshold	5.6							
Parameter Group #5								
Rise rate	5	0.18	2.489	1.556	0.964	0.3749	0.1992	0.5355
Fall rate	-5	-0.17	-2.19	-1.529	0.966	0.3016	0.09209	0.5676
Number of reversals	20	36	1.2	0.5417	0.8	0.5486	0.00	0.1001
EFC Low flows								
October Low Flow	3	3	0	0.1733	0		0.00	
November Low Flow	3	3	0	0.01917	0		0.00	
December Low Flow	3	3	0	0.2867	0		0.00	
January Low Flow	3	3	0	0	0		0.00	
February Low Flow	3	3	0.07667	0.07667	0	0	0.00	0.9199
March Low Flow	3	3	0.1683	0.1683	0	0	0.06106	1
April Low Flow	3	3	0	0	0		0.00	
May Low Flow	8	8	0.3063	0	0	1	0.00	0.2973
June Low Flow	8	8	0	0	0		0.00	
July Low Flow	8	8	0	0	0		0.00	
August Low Flow	8	8	0	0	0		0.00	
September Low Flow	5.5	5.58	0.1209	0.151	0.01455	0.2488	0.00	0.7578
EFC Parameters								
High flow peak	70.68	78.3	0.6049	0.3452	0.1078	0.4293	0.3293	0.3403
High flow duration	3	1.75	1.25	1.714	0.4167	0.3714	0.3584	0.3724
High flow timing	189.3	187	0.06421	0.06011	0.0123	0.06383	0.5786	0.8358
High flow frequency	1	0	3	0	1	1	0.002002	0.00
High flow rise rate	34.3	47.58	1.378	0.6857	0.387	0.5023	0.08909	0.1441
High flow fall rate	-22	-33.87	-1.247	-0.8616	0.5396	0.3088	0.1351	0.4104
Small Flood peak	174	180.6	0.2874	0.2834	0.03776	0.01374	0.6376	0.986
Small Flood duration	16	7	1.375	2.286	0.5625	0.6623	0.1972	0.1261
Small Flood timing	172	172	0.04098	0.03689	0	0.1	0.8889	0.8729
Small Flood freq.	0	0	0	0				
Small Flood riserate	34.75	53.33	1.62	2.005	0.5348	0.2372	0.1371	0.7307
Small Flood fallrate	-20	-40.43	-1.38	-1.405	1.021	0.01809	0.02803	0.976
Large flood peak	310.5	303.9	0.3367	0.4442	0.02118	0.3193	0.8829	0.4795
Large flood duration	51.5	15	1.286	4.067	0.7087	2.161	0.4815	0.08108
Large flood timing	176.5	176	0.04167	0.03552	0.002732	0.1475	0.7057	0.7367
Large flood freq.	0	0	0	0				
Large flood riserate	15.27	51.2	0.8333	2.302	2.352	1.763	0.03704	0.3033
Large flood fallrate	-10.33	-23.27	-1.883	-1.3	1.253	0.3098	0.2743	0.6076
EFC low flow threshold:								
EFC high flow threshold:		8.01						
EFC small flood minimum peak flow:		136.5						
EFC large flood minimum peak flow:		253.8						

IHA Non-Parametric RVA Scorecard
Vasquez Creek Diversion (Node 2280)

	Pre-impact period: Current Conditions				Post-impact period: Alt. 1a						Hydrologic Alteration
		Coeff. of				Coeff. of			RVA Boundaries		(Middle
	Medians	Dispersion	Minimum	Maximum	Medians	Dispersion	Minimum	Maximum	Low	High	Category)
Parameter Group #1											
October	3	0	2.1	5.04	3	0.1733	2.48	3.86	3	3	-0.425
November	3	0	2.1	18.96	3	0.01917	1.5	3.735	3	3	-0.3077
December	3	0	2.1	11	3	0.2867	1.5	4.36	3	3	-0.5
January	3	0	1.5	6.5	3	0	1.5	3	3	3	0.05714
February	3	0.07667	1.5	5.4	3	0.07667	1.5	3	2.984	3	0.07143
March	3	0.1683	1.5	3	3	0.1683	1.5	3	2.692	3	0
April	3	0	1.5	3	3	0	1.5	3	3	3	0
May	8	0	4	8	8	0	4	8	8	8	0.02703
June	8	11.77	5.6	210.5	8	0	4	210.5	8	70.48	0.2692
July	8	0	5.6	185.9	8	0	4	169	8	8	-0.05405
August	8	0	5.6	49.6	8	0	4	21.87	8	8	0.02703
September	5.5	0.03182	3.85	5.5	5.62	0.1508	3.62	6.655	5.5	5.5	-0.8824
Parameter Group #2											
1-day minimum	2.27	0.6233	0	3	2.23	0.6345	0	3	2.005	3	0
3-day minimum	2.43	0.4527	0	3	2.43	0.4527	0	3	2.23	3	-0.03226
7-day minimum	2.743	0.3281	0.7271	3	2.743	0.3281	0.7271	3	2.293	3	-0.03333
30-day minimum	2.954	0.2074	1.313	3	2.913	0.2257	1.233	3	2.634	3	-0.03333
90-day minimum	2.985	0.09677	1.5	3.682	2.955	0.09774	1.411	3	2.795	3	0
1-day maximum	136.5	1.327	5.6	399	99.68	1.668	4	399	11.73	168	-0.2
3-day maximum	123.2	1.42	5.6	380	75.9	1.746	4	380	10.04	149.7	-0.1333
7-day maximum	113.6	1.345	5.6	367.1	39.43	2.871	4	367.1	9.169	134.4	0
30-day maximum	51.3	1.924	5.6	286	15.33	3.196	4	286	8.32	97.83	0.3333
90-day maximum	22.43	1.714	5.6	154.4	10.44	1.564	4	132.9	8.01	40.68	0.3333
Number of zero days	0	0	0	8	0	0	0	8	0	0	0
Base flow index	0.2969	1.109	0.02104	0.6398	0.4284	0.7403	0.08431	0.6394	0.1886	0.4647	0.4667
Parameter Group #3											
Date of minimum	275	0.474	8	348	293	0.4057	47	349	92.18	275	-0.375
Date of maximum	167	0.1079	136	351	159	0.1093	136	191	151.7	172	-0.25
Parameter Group #4											
Low pulse count	1	4.5	0	12	1	5	0	12	0	2	-0.125
Low pulse duration	3.5	9.143	1	242	3	1.75	1	227	1.62	6	0.2
High pulse count	1	0	0	8	1	0	0	4	1	1	0
High pulse duration	124	0.1694	5	124	124	0.1371	17	124	123.5	124	0
The low pulse threshold is			3								
The high pulse threshold is			5.6								
Parameter Group #5											
Rise rate	5	2.489	0.04	39.55	0.18	1.556	0.04	6	1.221	8.964	-0.6
Fall rate	-5	-2.19	-29.83	-0.08	-0.17	-1.529	-12.3	-0.05	-8.554	-0.9016	-0.8667
Number of reversals	20	1.2	1	75	36	0.5417	9	72	10.18	26.82	-0.2667

Assessment of Hydrologic Alteration

	Middle RVA Category			High RVA Category			Low RVA Category		
	Expected	Observed	Alter.	Expected	Observed	Alter.	Expected	Observed	Alter.
Parameter Group #1									
October	40	23	-0.425	1	20	19	4	2	-0.5
November	39	27	-0.3077	1	13	12	5	5	0
December	38	19	-0.5	2	22	10	5	4	-0.2
January	35	37	0.05714	2	0	-1	8	8	0
February	28	30	0.07143	2	0	-1	15	15	0
March	30	30	0				15	15	0
April	36	36	0				9	9	0
May	37	38	0.02703				8	7	-0.125
June	26	33	0.2692	15	6	-0.6	4	6	0.5
July	37	35	-0.05405	6	4	-0.3333	2	6	2
August	37	38	0.02703	4	1	-0.75	4	6	0.5
September	34	4	-0.8824				11	13	0.1818
Parameter Group #2									
1-day minimum	30	30	0	0	0		15	15	0
3-day minimum	31	30	-0.03226	0	0		14	15	0.07143
7-day minimum	30	29	-0.03333	0	0		15	16	0.06667
30-day minimum	30	29	-0.03333	0	0		15	16	0.06667
90-day minimum	29	29	0	1	0	-1	15	16	0.06667
1-day maximum	15	12	-0.2	15	12	-0.2	15	21	0.4
3-day maximum	15	13	-0.1333	15	11	-0.2667	15	21	0.4
7-day maximum	15	15	0	15	9	-0.4	15	21	0.4
30-day maximum	15	20	0.3333	15	4	-0.7333	15	21	0.4
90-day maximum	15	20	0.3333	15	4	-0.7333	15	21	0.4
Number of zero days	44	44	0	1	1	0	0	0	
Base flow index	15	22	0.4667	15	19	0.2667	15	4	-0.7333
Parameter Group #3									
Date of minimum	24	15	-0.375	6	16	1.667	15	14	-0.06667
Date of maximum	16	12	-0.25	14	12	-0.1429	15	21	0.4
Parameter Group #4									
Low pulse count	32	28	-0.125	13	17	0.3077	0	0	
Low pulse duration	10	12	0.2	8	7	-0.125	9	11	0.2222
High pulse count	36	36	0	7	6	-0.1429	2	3	0.5
High pulse duration	29	29	0	0	0		14	13	-0.07143
Parameter Group #5									
Rise rate	15	6	-0.6	15	0	-1	15	39	1.6
Fall rate	15	2	-0.8667	15	40	1.667	15	3	-0.8
Number of reversals	15	11	-0.2667	15	33	1.2	15	1	-0.9333

Non-Parametric IHA Scorecard								
Vasquez Creek Diversion (Node 2280)								
Pre-impact period: Current Conditions (1947-1991)				Post-impact period: Full Use (1947-1991)				
NormalizationFactor	1			1				
Mean annual flow	10.94			10.37				
Non-Normalized Mean Fl	10.94			10.37				
Annual C. V.	2.81			2.87				
Flow predictability	0.78			0.79				
Constancy/predictability	0.65			0.68				
% of floods in 60d period	0.78			0.78				
Flood-free season	77			76				
	MEDIANS		COEFF. of DISP.		DEVIATION FACTOR		SIGNIFICANCE COUNT	
	Pre	Post	Pre	Post	Medians	C.D.	Medians	C.D.
Parameter Group #1								
October	3	3	0	0.1733	0		0.00	
November	3	3	0	0.055	0		0.00	
December	3	3	0	0.2933	0		0.00	
January	3	3	0	0	0		0.00	
February	3	3	0.07667	0.07667	0	0	0.002002	0.9219
March	3	3	0.1683	0.1683	0	0	0.06807	0.999
April	3	3	0	0	0		0.00	
May	8	8	0	0	0		0.00	
June	8	8	11.77	11.51	0	0.02264	0.08108	0.8569
July	8	8	0	0	0		0.00	
August	8	8	0	0	0		0.00	
September	5.5	5.62	0.03182	0.1508	0.02182	3.739	0.00	0.1101
Parameter Group #2								
1-day minimum	2.27	2.23	0.6233	0.6345	0.01762	0.01794	0.7117	0.962
3-day minimum	2.43	2.43	0.4527	0.4527	0	0	0.998	1
7-day minimum	2.743	2.743	0.3281	0.3281	0	0	0.996	1
30-day minimum	2.954	2.913	0.2074	0.2257	0.01399	0.08811	0.8639	0.7818
90-day minimum	2.985	2.955	0.09677	0.09774	0.009939	0.01004	0.8218	0.964
1-day maximum	136.5	135.8	1.327	1.364	0.004909	0.02833	0.959	0.8799
3-day maximum	123.2	110.3	1.42	1.558	0.105	0.09708	0.8208	0.6857
7-day maximum	113.6	97.29	1.345	1.546	0.1437	0.1498	0.6296	0.5816
30-day maximum	51.3	36.6	1.924	2.723	0.2865	0.4154	0.7167	0.4284
90-day maximum	22.43	17.65	1.714	2.077	0.2131	0.2123	0.7417	0.6096
Number of zero days	0	0	0	0				
Base flow index	0.2969	0.306	1.109	1.235	0.03076	0.1133	0.8368	0.6096
Parameter Group #3								
Date of minimum	275	293	0.474	0.4057	0.09836	0.1441	0.4825	0.5375
Date of maximum	167	164	0.1079	0.09836	0.01639	0.08861	0.5125	0.5035
Parameter Group #4								
Low pulse count	1	1	4.5	5	0	0.1111	0.04705	0.6146
Low pulse duration	3.5	3	9.143	1.75	0.1429	0.8086	0.6897	0.4555
High pulse count	1	1	0	0	0		0.00	
High pulse duration	124	124	0.1694	0.2238	0	0.3214	0.001001	0.8378
Low Pulse Threshold	3							
High Pulse Threshold	5.6							
Parameter Group #5								
Rise rate	5	0.24	2.489	1.323	0.952	0.4684	0.2012	0.3744
Fall rate	-5	-0.235	-2.19	-3.043	0.953	0.3893	0.1091	0.4264
Number of reversals	20	42	1.2	0.5714	1.1	0.5238	0.00	0.08509
EFC Low flows								
October Low Flow	3	3	0	0.1733	0		0.00	
November Low Flow	3	3	0	0.055	0		0.00	
December Low Flow	3	3	0	0.2933	0		0.00	
January Low Flow	3	3	0	0	0		0.00	
February Low Flow	3	3	0.07667	0.07667	0	0	0.002002	0.9219
March Low Flow	3	3	0.1683	0.1683	0	0	0.06807	0.999
April Low Flow	3	3	0	0	0		0.00	
May Low Flow	8	8	0.3063	0.5	0	0.6327	0.04505	0.3614
June Low Flow	8	8	0	0	0		0.00	
July Low Flow	8	8	0	0	0		0.00	
August Low Flow	8	8	0	0	0		0.00	
September Low Flow	5.5	5.58	0.1209	0.1868	0.01455	0.5452	0.00	0.4304
EFC Parameters								
High flow peak	70.68	72.05	0.6049	0.5579	0.01935	0.07772	0.956	0.8048
High flow duration	3	2	1.25	0.8125	0.3333	0.35	0.1451	0.3263
High flow timing	189.3	187.8	0.06421	0.07616	0.008197	0.1862	0.8418	0.6196
High flow frequency	1	1	3	3	0	0	0.5826	0.6286
High flow rise rate	34.3	50.1	1.378	0.9041	0.4606	0.3438	0.1171	0.3584
High flow fall rate	-22	-31.47	-1.247	-1.123	0.4307	0.09941	0.06306	0.8078
Small Flood peak	174	171.9	0.2874	0.357	0.01236	0.2424	0.8969	0.6296
Small Flood duration	16	17.5	1.375	1.1	0.09375	0.2	0.8348	0.5806
Small Flood timing	172	170	0.04098	0.04235	0.01093	0.03333	0.2492	0.9369
Small Flood freq.	0	0	0	0				
Small Flood riserate	34.75	36.33	1.62	3.709	0.04532	1.289	0.9049	0.1522
Small Flood fallrate	-20	-24.51	-1.38	-0.801	0.2257	0.4196	0.4174	0.5856
Large flood peak	310.5	310.5	0.3367	0.3367	0	0	0.9039	0.8809
Large flood duration	51.5	47	1.286	1.218	0.08738	0.05311	0.8689	0.9269
Large flood timing	176.5	176.5	0.04167	0.04167	0	0	0.9089	0.8408
Large flood freq.	0	0	0	0				
Large flood riserate	15.27	14.09	0.8333	0.7782	0.07735	0.06608	0.7097	0.9049
Large flood fallrate	-10.33	-13.71	-1.883	-1.468	0.3271	0.2203	0.8509	0.6737
EFC low flow threshold:								
EFC high flow threshold:		8.01						
EFC small flood minimum peak flow:		136.5						
EFC large flood minimum peak flow:		253.8						

IHA Non-Parametric RVA Scorecard
Vasquez Creek Diversion (Node 2280)

	Pre-impact period: Current Conditions				Post-impact period: Full Use				RVA Boundaries		Hydrologic Alteration (Middle
	Medians	Coeff. of Dispersion	Minimum	Maximum	Medians	Coeff. of Dispersion	Minimum	Maximum	Low	High	Category)
Parameter Group #1											
October	3	0	2.1	5.04	3	0.1733	2.48	3.86	3	3	-0.45
November	3	0	2.1	18.96	3	0.055	1.5	8.045	3	3	-0.3333
December	3	0	2.1	11	3	0.2933	1.5	10.03	3	3	-0.5
January	3	0	1.5	6.5	3	0	1.5	6.3	3	3	0.02857
February	3	0.07667	1.5	5.4	3	0.07667	1.5	5.4	2.984	3	0
March	3	0.1683	1.5	3	3	0.1683	1.5	3	2.692	3	0
April	3	0	1.5	3	3	0	1.5	3	3	3	0
May	8	0	4	8	8	0	4	44.19	8	8	0
June	8	11.77	5.6	210.5	8	11.51	4	210.5	8	70.48	-0.07692
July	8	0	5.6	185.9	8	0	4	185.9	8	8	-0.1081
August	8	0	5.6	49.6	8	0	4	28.74	8	8	-0.02703
September	5.5	0.03182	3.85	5.5	5.62	0.1508	3.62	6.655	5.5	5.5	-0.8824
Parameter Group #2											
1-day minimum	2.27	0.6233	0	3	2.23	0.6345	0	3	2.005	3	0
3-day minimum	2.43	0.4527	0	3	2.43	0.4527	0	3	2.23	3	-0.03226
7-day minimum	2.743	0.3281	0.7271	3	2.743	0.3281	0.7271	3	2.293	3	-0.03333
30-day minimum	2.954	0.2074	1.313	3	2.913	0.2257	1.233	3	2.634	3	-0.03333
90-day minimum	2.985	0.09677	1.5	3.682	2.955	0.09774	1.411	3.682	2.795	3	-0.03448
1-day maximum	136.5	1.327	5.6	399	135.8	1.364	4	399	11.73	168	-0.06667
3-day maximum	123.2	1.42	5.6	380	110.3	1.558	4	380	10.04	149.7	-0.06667
7-day maximum	113.6	1.345	5.6	367.1	97.29	1.546	4	367.1	9.169	134.4	-0.06667
30-day maximum	51.3	1.924	5.6	286	36.6	2.723	4	286	8.32	97.83	0.06667
90-day maximum	22.43	1.714	5.6	154.4	17.65	2.077	4	149.7	8.01	40.68	0.06667
Number of zero days	0	0	0	8	0	0	0	8	0	0	0
Base flow index	0.2969	1.109	0.02104	0.6398	0.306	1.235	0.023	0.6394	0.1886	0.4647	0.1333
Parameter Group #3											
Date of minimum	275	0.474	8	348	293	0.4057	47	349	92.18	275	-0.375
Date of maximum	167	0.1079	136	351	164	0.09836	136	192	151.7	172	0.0625
Parameter Group #4											
Low pulse count	1	4.5	0	12	1	5	0	12	0	2	-0.125
Low pulse duration	3.5	9.143	1	242	3	1.75	1	227	1.62	6	0.2
High pulse count	1	0	0	8	1	0	0	10	1	1	-0.02778
High pulse duration	124	0.1694	5	124	124	0.2238	3.5	125	123.5	124	-0.06897
The low pulse threshold is			3								
The high pulse threshold is			5.6								
Parameter Group #5											
Rise rate	5	2.489	0.04	39.55	0.24	1.323	0.04	11.5	1.221	8.964	-0.6
Fall rate	-5	-2.19	-29.83	-0.08	-0.235	-3.043	-10.97	-0.05	-8.554	-0.9016	-0.5333
Number of reversals	20	1.2	1	75	42	0.5714	9	82	10.18	26.82	-0.6667

Assessment of Hydrologic Alteration

	Middle RVA Category			High RVA Category			Low RVA Category		
	Expected	Observed	Alter.	Expected	Observed	Alter.	Expected	Observed	Alter.
Parameter Group #1									
October	40	22	-0.45	1	21	20	4	2	-0.5
November	39	26	-0.3333	1	14	13	5	5	0
December	38	19	-0.5	2	22	10	5	4	-0.2
January	35	36	0.02857	2	1	-0.5	8	8	0
February	28	28	0	2	2	0	15	15	0
March	30	30	0				15	15	0
April	36	36	0				9	9	0
May	37	37	0				8	7	-0.125
June	26	24	-0.07692	15	15	0	4	6	0.5
July	37	33	-0.1081	6	6	0	2	6	2
August	37	36	-0.02703	4	3	-0.25	4	6	0.5
September	34	4	-0.8824				11	13	0.1818
Parameter Group #2									
1-day minimum	30	30	0	0	0		15	15	0
3-day minimum	31	30	-0.03226	0	0		14	15	0.07143
7-day minimum	30	29	-0.03333	0	0		15	16	0.06667
30-day minimum	30	29	-0.03333	0	0		15	16	0.06667
90-day minimum	29	28	-0.03448	1	1	0	15	16	0.06667
1-day maximum	15	14	-0.06667	15	15	0	15	16	0.06667
3-day maximum	15	14	-0.06667	15	15	0	15	16	0.06667
7-day maximum	15	14	-0.06667	15	15	0	15	16	0.06667
30-day maximum	15	16	0.06667	15	13	-0.1333	15	16	0.06667
90-day maximum	15	16	0.06667	15	13	-0.1333	15	16	0.06667
Number of zero days	44	44	0	1	1	0	0	0	
Base flow index	15	17	0.1333	15	15	0	15	13	-0.1333
Parameter Group #3									
Date of minimum	24	15	-0.375	6	16	1.667	15	14	-0.06667
Date of maximum	16	17	0.0625	14	10	-0.2857	15	18	0.2
Parameter Group #4									
Low pulse count	32	28	-0.125	13	17	0.3077	0	0	
Low pulse duration	10	12	0.2	8	7	-0.125	9	11	0.2222
High pulse count	36	35	-0.02778	7	7	0	2	3	0.5
High pulse duration	29	27	-0.06897	0	1		14	14	0
Parameter Group #5									
Rise rate	15	6	-0.6	15	1	-0.9333	15	38	1.533
Fall rate	15	7	-0.5333	15	34	1.267	15	4	-0.7333
Number of reversals	15	5	-0.6667	15	39	1.6	15	1	-0.9333

Non-Parametric IHA Scorecard								
Elk Creek and Tributaries Diversion (Node 2300)								
Pre-impact period: Current Conditions (1947-1991)				Post-impact period: Alt. 1a (1947-1991)				
NormalizationFactor	1			1				
Mean annual flow	1.21			0.83				
Non-Normalized Mean Fl	1.21			0.83				
Annual C. V.	2.99			3.35				
Flow predictability	0.7			0.74				
Constancy/predictability	0.62			0.64				
% of floods in 60d period	0.56			0.56				
Flood-free season	30			49				
	MEDIANS		COEFF. of DISP.		DEVIATION FACTOR		SIGNIFICANCE COUNT	
	Pre	Post	Pre	Post	Medians	C.D.	Medians	C.D.
Parameter Group #1								
October	0	0	0	0				
November	0	0	0	0				
December	0	0	0	0				
January	0	0	0	0				
February	0	0	0	0				
March	0	0	0	0				
April	0	0	0	0				
May	0	0	0	0				
June	2.15	2.15	5.698	1.879	0	0.6702	0.2763	0.2663
July	2.65	2.55	0.4925	0.4627	0.03774	0.06033	0.7688	0.8068
August	1.3	1.3	0.5	0.5	0	0	0.5295	0.989
September	0.5	0.5	0.545	0.545	0	0	0.02503	1
Parameter Group #2								
1-day minimum	0	0	0	0				
3-day minimum	0	0	0	0				
7-day minimum	0	0	0	0				
30-day minimum	0	0	0	0				
90-day minimum	0	0	0	0				
1-day maximum	15.8	10.7	1.336	1.853	0.3228	0.3871	0.2272	0.1431
3-day maximum	14.97	9.16	1.282	1.829	0.388	0.4273	0.3373	0.2513
7-day maximum	13.03	5.154	1.337	3.083	0.6044	1.306	0.2332	0.1101
30-day maximum	7.737	3.263	1.529	2.177	0.5782	0.4239	0.2282	0.3463
90-day maximum	3.543	2.223	1.388	1.003	0.3725	0.2772	0.1311	0.2603
Number of zero days	238	243	0.09034	0.09671	0.02101	0.07053	0.2102	0.8178
Base flow index	0	0	0	0				
Parameter Group #3								
Date of minimum	275	275	0	0	0		0.00	
Date of maximum	173	180	0.04918	0.07377	0.03825	0.5	0.09309	0.0951
Parameter Group #4								
Low pulse count	0	0	0	0				
Low pulse duration								
High pulse count	4	4	0.75	0.75	0	0	0.5996	0.8729
High pulse duration	13.5	9	4.352	6.194	0.3333	0.4234	0.5536	0.3243
Low Pulse Threshold	0							
High Pulse Threshold	0.2							
Parameter Group #5								
Rise rate	0.11	0.11	1.023	0.7273	5.419E-07	0.2889	0.5816	0.08008
Fall rate	-0.185	-0.11	-0.8649	-0.9091	0.4054	0.05114	0.2643	0.8849
Number of reversals	45	43	0.2667	0.3256	0.04444	0.2209	0.5916	0.3654
EFC Low flows								
October Low Flow	0	0	0	0				
November Low Flow	0	0	0	0				
December Low Flow	0	0	0	0				
January Low Flow	0	0	0	0				
February Low Flow	0	0	0	0				
March Low Flow	0	0	0	0				
April Low Flow	0	0	0	0				
May Low Flow	0	0	0	0				
June Low Flow	1.58	0.93	1.176	2.27	0.4114	0.931	0.6366	0.2693
July Low Flow	2.18	2.095	0.3337	0.364	0.03899	0.09063	0.5736	0.6567
August Low Flow	1.3	1.2	0.5192	0.5417	0.07692	0.04321	0.3954	0.8298
September Low Flow	0.5	0.5	0.545	0.545	0	0	0.02503	1
EFC Parameters								
High flow peak	7.3	4.475	0.8247	1.278	0.387	0.55	0.6677	0.3173
High flow duration	3	2	1.167	3.375	0.3333	1.893	0.2372	0.002002
High flow timing	190	191.5	0.05055	0.05943	0.008197	0.1757	0.7477	0.3844
High flow frequency	2	1	1	3	0.5	2	0.4474	0.007007
High flow rise rate	2.525	3.161	2.22	2.102	0.2518	0.05291	0.6336	0.9159
High flow fall rate	-1.311	-1.334	-2.61	-3.789	0.01763	0.4516	0.972	0.3924
Small Flood peak	23.4	21.7	0.2115	0.2408	0.07265	0.1382	0.3874	0.6857
Small Flood duration	26	9	0.75	1.444	0.6538	0.9259	0.07207	0.03804
Small Flood timing	169	171	0.03757	0.02937	0.01093	0.2182	0.4244	0.7798
Small Flood freq.	0	0	0	0				
Small Flood riserate	3.16	6.038	2.173	1.608	0.9109	0.26	0.02903	0.8228
Small Flood fallrate	-1.862	-4.334	-1.569	-2.564	1.328	0.6346	0.04104	0.4114
Large flood peak	32.9	32.9	0.1467	0.1467	0	0	0.9039	0.8679
Large flood duration	46.5	5.5	1.763	9.455	0.8817	4.361	0.7037	0.1532
Large flood timing	176.5	176.5	0.04372	0.04372	0	0	0.9119	0.8368
Large flood freq.	0	0	0	0				
Large flood riserate	4.091	7.855	5.942	2.893	0.9201	0.5132	0.2893	0.5335
Large flood fallrate	-1.174	-17.43	-20.01	-1.34	13.84	0.933	0.2232	0.4474
EFC low flow threshold:								
EFC high flow threshold:		3						
EFC small flood minimum peak flow:		15.8						
EFC large flood minimum peak flow:		29.42						

IHA Non-Parametric RVA Scorecard
Elk Creek and Tributaries Diversion (Node 2300)

	Pre-impact period: Current Conditions				Post-impact period: Alt. 1a				RVA Boundaries		Hydrologic Alteration (Middle
	Medians	Coeff. of Dispersion	Minimum	Maximum	Medians	Coeff. of Dispersion	Minimum	Maximum	Low	High	Category)
Parameter Group #1											
October	0	0	0	1	0	0	0	0.36	0	0	0.02703
November	0	0	0	1	0	0	0	0.095	0	0	0.02326
December	0	0	0	0.9	0	0	0	0.14	0	0	0.02326
January	0	0	0	1	0	0	0	0.1	0	0	0.04762
February	0	0	0	0.95	0	0	0	0.2	0	0	0.05
March	0	0	0	0.2	0	0	0	0.2	0	0	0
April	0	0	0	0	0	0	0	0	0	0	0
May	0	0	0	0.82	0	0	0	0.41	0	0	0.05
June	2.15	5.698	0	23.7	2.15	1.879	0	21.95	2.109	13.4	0.4667
July	2.65	0.4925	0	16.5	2.55	0.4627	0	16.5	2.225	3.132	0.1333
August	1.3	0.5	0	7.7	1.3	0.5	0	7.7	1.118	1.5	0.0625
September	0.5	0.545	0	0.9	0.5	0.545	0	0.9	0.4	0.55	0
Parameter Group #2											
1-day minimum	0	0	0	0	0	0	0	0	0	0	0
3-day minimum	0	0	0	0	0	0	0	0	0	0	0
7-day minimum	0	0	0	0	0	0	0	0	0	0	0
30-day minimum	0	0	0	0	0	0	0	0	0	0	0
90-day minimum	0	0	0	0.2167	0	0	0	0.08167	0	0	0.05
1-day maximum	15.8	1.336	2.15	35.4	10.7	1.853	2.15	35.4	5.001	23.35	-0.1333
3-day maximum	14.97	1.282	2.15	34	9.16	1.829	2.15	34	4.116	20.8	-0.06667
7-day maximum	13.03	1.337	2.15	33.4	5.154	3.083	2.15	27.57	3.75	19.06	-0.0625
30-day maximum	7.737	1.529	1.652	22.78	3.263	2.177	1.652	22.36	3.391	12.9	0.1333
90-day maximum	3.543	1.388	0.6081	14.04	2.223	1.003	0.6081	12.19	2.095	6.009	0.4
Number of zero days	238	0.09034	99	319	243	0.09671	141	334	226.4	243	-0.05882
Base flow index	0	0	0	0	0	0	0	0	0	0	0
Parameter Group #3											
Date of minimum	275	0	275	306	275	0	275	306	275	275	0
Date of maximum	173	0.04918	152	213	180	0.07377	153	213	167	180.8	-0.375
Parameter Group #4											
Low pulse count	0	0	0	0	0	0	0	0	0	0	0
Low pulse duration											
High pulse count	4	0.75	1	16	4	0.75	1	19	2	4.82	0.1429
High pulse duration	13.5	4.352	1	128	9	6.194	1	128	6.18	57.01	-0.2
The low pulse threshold is			0								
The high pulse threshold is			0.2								
Parameter Group #5											
Rise rate	0.11	1.023	0.095	0.6	0.11	0.7273	0.095	0.65	0.1	0.2	0.2353
Fall rate	-0.185	-0.8649	-0.9	-0.1	-0.11	-0.9091	-0.8	-0.1	-0.2	-0.1018	0.06667
Number of reversals	45	0.2667	21	88	43	0.3256	15	98	41	50	-0.2105

Assessment of Hydrologic Alteration

	Middle RVA Category			High RVA Category			Low RVA Category		
	Expected	Observed	Alter.	Expected	Observed	Alter.	Expected	Observed	Alter.
Parameter Group #1									
October	37	38	0.02703	8	7	-0.125			
November	43	44	0.02326	2	1	-0.5			
December	43	44	0.02326	2	1	-0.5			
January	42	44	0.04762	3	1	-0.6667			
February	40	42	0.05	5	3	-0.4			
March	42	42	0	3	3	0			
April	45	45	0						
May	40	42	0.05	5	3	-0.4			
June	15	22	0.4667	15	3	-0.8	15	20	0.3333
July	15	17	0.1333	15	12	-0.2	15	16	0.06667
August	16	17	0.0625	14	12	-0.1429	15	16	0.06667
September	19	19	0	14	14	0	12	12	0
Parameter Group #2									
1-day minimum	45	45	0	0	0		0	0	
3-day minimum	45	45	0	0	0		0	0	
7-day minimum	45	45	0	0	0		0	0	
30-day minimum	45	45	0	0	0		0	0	
90-day minimum	40	42	0.05	5	3	-0.4	0	0	
1-day maximum	15	13	-0.1333	15	11	-0.2667	15	21	0.4
3-day maximum	15	14	-0.06667	15	10	-0.3333	15	21	0.4
7-day maximum	16	15	-0.0625	15	11	-0.2667	14	19	0.3571
30-day maximum	15	17	0.1333	15	5	-0.6667	15	23	0.5333
90-day maximum	15	21	0.4	15	4	-0.7333	15	20	0.3333
Number of zero days	17	16	-0.05882	13	20	0.5385	15	9	-0.4
Base flow index	45	45	0	0	0		0	0	
Parameter Group #3									
Date of minimum	39	39	0	6	6	0	0	0	
Date of maximum	16	10	-0.375	15	22	0.4667	14	13	-0.07143
Parameter Group #4									
Low pulse count	45	45	0	0	0		0	0	
Low pulse duration	0	0		0	0		0	0	
High pulse count	21	24	0.1429	15	15	0	9	6	-0.3333
High pulse duration	15	12	-0.2	15	12	-0.2	15	21	0.4
Parameter Group #5									
Rise rate	17	21	0.2353	14	7	-0.5	14	17	0.2143
Fall rate	15	16	0.06667	15	21	0.4	15	8	-0.4667
Number of reversals	19	15	-0.2105	13	12	-0.07692	13	18	0.3846

Non-Parametric IHA Scorecard								
Elk Creek and Tributaries Diversion (Node 2300)								
Pre-impact period: Current Conditions (1947-1991)				Post-impact period: Full Use (1947-1991)				
NormalizationFactor	1			1				
Mean annual flow	1.21			1.15				
Non-Normalized Mean	1.21			1.15				
Annual C. V.	2.99			3.06				
Flow predictability	0.7			0.71				
Constancy/predictability	0.62			0.63				
% of floods in 60d peric	0.56			0.56				
Flood-free season	30			30				
	MEDIANS		COEFF. of DISP.		DEVIATION FACTOR		SIGNIFICANCE COUNT	
	Pre	Post	Pre	Post	Medians	C.D.	Medians	C.D.
Parameter Group #1								
October	0	0	0	0				
November	0	0	0	0				
December	0	0	0	0				
January	0	0	0	0				
February	0	0	0	0				
March	0	0	0	0				
April	0	0	0	0				
May	0	0	0	0				
June	2.15	2.15	5.698	5.442	0	0.0449	0.9119	0.9219
July	2.65	2.55	0.4925	0.4314	0.03774	0.124	0.7738	0.6827
August	1.3	1.3	0.5	0.5	0	0	0.5215	0.99
September	0.5	0.5	0.545	0.545	0	0	0.02302	0.999
Parameter Group #2								
1-day minimum	0	0	0	0				
3-day minimum	0	0	0	0				
7-day minimum	0	0	0	0				
30-day minimum	0	0	0	0				
90-day minimum	0	0	0	0				
1-day maximum	15.8	15.8	1.336	1.336	0	0	1	1
3-day maximum	14.97	14.97	1.282	1.257	0	0.01946	1	0.963
7-day maximum	13.03	13.03	1.337	1.286	0	0.03773	1	0.8979
30-day maximum	7.737	6.943	1.529	1.54	0.1026	0.007227	0.8158	0.983
90-day maximum	3.543	3.257	1.388	1.37	0.08054	0.01286	0.9089	0.983
Number of zero days	238	238	0.09034	0.1092	0	0.2093	0.9319	0.5626
Base flow index	0	0	0	0				
Parameter Group #3								
Date of minimum	275	275	0	0	0		0.00	
Date of maximum	173	173	0.04918	0.04918	0	0	0.9279	0.969
Parameter Group #4								
Low pulse count	0	0	0	0				
Low pulse duration								
High pulse count	4	4	0.75	1	0	0.3333	0.5846	0.2492
High pulse duration	13.5	11	4.352	5.455	0.1852	0.2534	0.7628	0.5726
Low Pulse Threshold	0							
High Pulse Threshold	0.2							
Parameter Group #5								
Rise rate	0.11	0.12	1.023	0.8542	0.09091	0.1648	0.8689	0.5315
Fall rate	-0.185	-0.17	-0.8649	-0.6765	0.08108	0.2178	0.8198	0.5996
Number of reversals	45	45	0.2667	0.2778	0	0.04167	0.9459	0.8759
EFC Low flows								
October Low Flow	0	0	0	0				
November Low Flow	0	0	0	0				
December Low Flow	0	0	0	0				
January Low Flow	0	0	0	0				
February Low Flow	0	0	0	0				
March Low Flow	0	0	0	0				
April Low Flow	0	0	0	0				
May Low Flow	0	0	0	0				
June Low Flow	1.58	1.305	1.176	1.648	0.1741	0.4014	0.8629	0.5716
July Low Flow	2.18	2.15	0.3337	0.3349	0.01376	0.0035	0.8098	0.987
August Low Flow	1.3	1.3	0.5192	0.5385	0	0.03704	0.6707	0.8939
September Low Flow	0.5	0.5	0.545	0.545	0	0	0.02302	0.999
EFC Parameters								
High flow peak	7.3	5.6	0.8247	1.223	0.2329	0.4833	0.7528	0.2723
High flow duration	3	2	1.167	0.5	0.3333	0.5714	0.2713	0.3984
High flow timing	190	191	0.05055	0.06148	0.005464	0.2162	0.8148	0.4104
High flow frequency	2	2	1	1.5	0	0.5	0.7477	0.4254
High flow rise rate	2.525	3.18	2.22	1.649	0.2594	0.257	0.6426	0.5836
High flow fall rate	-1.311	-1.651	-2.61	-2.948	0.2594	0.1291	0.5405	0.7708
Small Flood peak	23.4	22.55	0.2115	0.2151	0.03632	0.01673	0.8118	0.952
Small Flood duration	26	23.5	0.75	0.8298	0.09615	0.1064	0.6987	0.7938
Small Flood timing	169	171.5	0.03757	0.02869	0.01366	0.2364	0.4535	0.7838
Small Flood freq.	0	0	0	0				
Small Flood riserate	3.16	2.469	2.173	5.437	0.2187	1.501	0.6426	0.2152
Small Flood fallrate	-1.862	-1.708	-1.569	-4.405	0.08275	1.808	0.952	0.07608
Large flood peak	32.9	32.9	0.1467	0.1467	0	0	0.9079	0.8729
Large flood duration	46.5	41.5	1.763	1.801	0.1075	0.02141	0.8899	0.9319
Large flood timing	176.5	176.5	0.04372	0.04372	0	0	0.9049	0.8338
Large flood freq.	0	0	0	0				
Large flood riserate	4.091	4.235	5.942	5.718	0.03509	0.03765	0.9099	0.8719
Large flood fallrate	-1.174	-1.608	-20.01	-14.71	0.3691	0.2648	0.8468	0.7618
EFC low flow threshold:								
EFC high flow threshold:		3						
EFC small flood minimum peak flov		15.8						
EFC large flood minimum peak flow		29.42						

Appendix H-14
Peak Flows

IHA Non-Parametric RVA Scorecard
Elk Creek and Tributaries Diversion (Node 2300)

	Pre-impact period: Current Conditions				Post-impact period: Full Use						Hydrologic Alteration
		Coeff. of				Coeff. of			RVA Boundaries		(Middle
	Medians	Dispersion	Minimum	Maximum	Medians	Dispersion	Minimum	Maximum	Low	High	Category)
Parameter Group #1											
October	0	0	0	1	0	0	0	0.36	0	0	0.02703
November	0	0	0	1	0	0	0	1	0	0	0
December	0	0	0	0.9	0	0	0	0.9	0	0	0
January	0	0	0	1	0	0	0	1	0	0	0.02381
February	0	0	0	0.95	0	0	0	0.95	0	0	0
March	0	0	0	0.2	0	0	0	0.2	0	0	0
April	0	0	0	0	0	0	0	0	0	0	0
May	0	0	0	0.82	0	0	0	5	0	0	-0.025
June	2.15	5.698	0	23.7	2.15	5.442	0	23.7	2.109	13.4	0.2667
July	2.65	0.4925	0	16.5	2.55	0.4314	0	16.5	2.225	3.132	0.1333
August	1.3	0.5	0	7.7	1.3	0.5	0	7.7	1.118	1.5	0.0625
September	0.5	0.545	0	0.9	0.5	0.545	0	0.9	0.4	0.55	0
Parameter Group #2											
1-day minimum	0	0	0	0	0	0	0	0	0	0	0
3-day minimum	0	0	0	0	0	0	0	0	0	0	0
7-day minimum	0	0	0	0	0	0	0	0	0	0	0
30-day minimum	0	0	0	0	0	0	0	0	0	0	0
90-day minimum	0	0	0	0.2167	0	0	0	0.1722	0	0	0.025
1-day maximum	15.8	1.336	2.15	35.4	15.8	1.336	2.15	35.4	5.001	23.35	-0.06667
3-day maximum	14.97	1.282	2.15	34	14.97	1.257	2.15	34	4.116	20.8	0
7-day maximum	13.03	1.337	2.15	33.4	13.03	1.286	2.15	33.4	3.75	19.06	0.125
30-day maximum	7.737	1.529	1.652	22.78	6.943	1.54	1.652	22.78	3.391	12.9	0.1333
90-day maximum	3.543	1.388	0.6081	14.04	3.257	1.37	0.6081	13.86	2.095	6.009	0.1333
Number of zero days	238	0.09034	99	319	238	0.1092	126	316	226.4	243	-0.1176
Base flow index	0	0	0	0	0	0	0	0	0	0	0
Parameter Group #3											
Date of minimum	275	0	275	306	275	0	275	306	275	275	0
Date of maximum	173	0.04918	152	213	173	0.04918	152	213	167	180.8	0.0625
Parameter Group #4											
Low pulse count	0	0	0	0	0	0	0	0	0	0	0
Low pulse duration											
High pulse count	4	0.75	1	16	4	1	1	19	2	4.82	0
High pulse duration	13.5	4.352	1	128	11	5.455	1	128	6.18	57.01	-0.06667
The low pulse threshold is			0								
The high pulse threshold is			0.2								
Parameter Group #5											
Rise rate	0.11	1.023	0.095	0.6	0.12	0.8542	0.095	0.7	0.1	0.2	0
Fall rate	-0.185	-0.8649	-0.9	-0.1	-0.17	-0.6765	-0.85	-0.1	-0.2	-0.1018	0.06667
Number of reversals	45	0.2667	21	88	45	0.2778	25	96	41	50	-0.2105

Assessment of Hydrologic Alteration

	Middle RVA Category			High RVA Category			Low RVA Category		
	Expected	Observed	Alter.	Expected	Observed	Alter.	Expected	Observed	Alter.
Parameter Group #1									
October	37	38	0.02703	8	7	-0.125			
November	43	43	0	2	2	0			
December	43	43	0	2	2	0			
January	42	43	0.02381	3	2	-0.3333			
February	40	40	0	5	5	0			
March	42	42	0	3	3	0			
April	45	45	0						
May	40	39	-0.025	5	6	0.2			
June	15	19	0.2667	15	11	-0.2667	15	15	0
July	15	17	0.1333	15	13	-0.1333	15	15	0
August	16	17	0.0625	14	13	-0.07143	15	15	0
September	19	19	0	14	14	0	12	12	0
Parameter Group #2									
1-day minimum	45	45	0	0	0		0	0	
3-day minimum	45	45	0	0	0		0	0	
7-day minimum	45	45	0	0	0		0	0	
30-day minimum	45	45	0	0	0		0	0	
90-day minimum	40	41	0.025	5	4	-0.2	0	0	
1-day maximum	15	14	-0.06667	15	15	0	15	16	0.06667
3-day maximum	15	15	0	15	14	-0.06667	15	16	0.06667
7-day maximum	16	18	0.125	15	13	-0.1333	14	14	0
30-day maximum	15	17	0.1333	15	11	-0.2667	15	17	0.1333
90-day maximum	15	17	0.1333	15	13	-0.1333	15	15	0
Number of zero days	17	15	-0.1176	13	16	0.2308	15	14	-0.06667
Base flow index	45	45	0	0	0		0	0	
Parameter Group #3									
Date of minimum	39	39	0	6	6	0	0	0	
Date of maximum	16	17	0.0625	15	14	-0.06667	14	14	0
Parameter Group #4									
Low pulse count	45	45	0	0	0		0	0	
Low pulse duration	0	0		0	0		0	0	
High pulse count	21	21	0	15	16	0.06667	9	8	-0.1111
High pulse duration	15	14	-0.06667	15	15	0	15	16	0.06667
Parameter Group #5									
Rise rate	17	17	0	14	13	-0.07143	14	15	0.07143
Fall rate	15	16	0.06667	15	15	0	15	14	-0.06667
Number of reversals	19	15	-0.2105	13	16	0.2308	13	14	0.07692

Non-Parametric IHA Scorecard								
North Fork Ranch and Dribble Creek Diversion (Node 2490)								
Pre-impact period: Current Conditions (1947-1991)				Post-impact period: Alt. 1a (1947-1991)				
NormalizationFactor	1			1				
Mean annual flow	2.04			1.49				
Non-Normalized Mean Fl	2.04			1.49				
Annual C. V.	3.51			4.21				
Flow predictability	0.72			0.77				
Constancy/predictability	0.85			0.87				
% of floods in 60d period	0.75			0.75				
Flood-free season	1			2				
	MEDIANS		COEFF. of DISP.		DEVIATION FACTOR		SIGNIFICANCE COUNT	
	Pre	Post	Pre	Post	Medians	C.D.	Medians	C.D.
Parameter Group #1								
October	0	0	0	0				
November	0	0	0	0				
December	0	0	0	0				
January	0	0	0	0				
February	0	0	0	0				
March	0	0	0	0				
April	0	0	0	0				
May	0	0	0	0				
June	17.05	6	1.551	3.061	0.6481	0.9733	0.3574	0.1952
July	0	0	0	0				
August	0	0	0	0				
September	0	0	0	0				
Parameter Group #2								
1-day minimum	0	0	0	0				
3-day minimum	0	0	0	0				
7-day minimum	0	0	0	0				
30-day minimum	0	0	0	0				
90-day minimum	0	0	0	0				
1-day maximum	34.1	30	0.6642	1.034	0.1202	0.556	0.5375	0.1782
3-day maximum	32.63	28.73	0.7834	1.133	0.1197	0.4463	0.5926	0.2733
7-day maximum	26.49	19.64	0.9683	1.527	0.2584	0.5767	0.2973	0.1712
30-day maximum	18.99	11.55	1.281	1.87	0.3916	0.46	0.3133	0.2342
90-day maximum	7.579	4.99	1.386	1.537	0.3416	0.1089	0.3694	0.7998
Number of zero days	300	308	0.1933	0.151	0.02667	0.2191	0.3624	0.4755
Base flow index	0	0	0	0				
Parameter Group #3								
Date of minimum	275	275	0	0	0		0.00	
Date of maximum	169	169	0.03962	0.05191	0	0.3103	0.8388	0.4344
Parameter Group #4								
Low pulse count	0	0	0	0				
Low pulse duration								
High pulse count	8	8	1	1	0	0	0.5495	0.968
High pulse duration	3	3	1.292	1.333	0	0.03226	0.2052	0.969
Low Pulse Threshold	0							
High Pulse Threshold	0							
Parameter Group #5								
Rise rate	0.7575	0.8	1.287	1.034	0.0561	0.1964	0.8809	0.4474
Fall rate	-0.875	-0.83	-0.6714	-0.9157	0.05143	0.3638	0.8889	0.3023
Number of reversals	33	31	0.8636	0.9032	0.06061	0.04584	0.8178	0.8859
EFC Low flows								
October Low Flow	0	0	0	0				
November Low Flow	0	0	0	0				
December Low Flow	0	0	0	0				
January Low Flow	0	0	0	0				
February Low Flow	0	0	0	0				
March Low Flow	0	0	0	0				
April Low Flow	0	0	0	0				
May Low Flow	0	0	0	0				
June Low Flow	0	0	0	0				
July Low Flow	0	0	0	0				
August Low Flow	0	0	0	0				
September Low Flow	0	0	0	0				
EFC Parameters								
High flow peak	9.1	9.65	0.8132	0.8549	0.06044	0.05132	0.6286	0.8218
High flow duration	2.5	2	1.2	1.25	0.2	0.04167	0.5115	0.8939
High flow timing	182	177	0.08197	0.07514	0.02732	0.08333	0.5836	0.7347
High flow frequency	2	2	1.5	1.5	0	0	0.2492	0.5546
High flow rise rate	5.6	4.615	0.9129	1.3	0.1759	0.4242	0.4705	0.2372
High flow fall rate	-3.853	-3.5	-1.034	-0.9787	0.0917	0.05353	0.8228	0.8569
Small Flood peak	42.3	42.2	0.1868	0.218	0.002364	0.1673	0.7898	0.7988
Small Flood duration	38	22	0.6053	0.7955	0.4211	0.3142	0.1191	0.3844
Small Flood timing	167	167	0.03552	0.03279	0	0.07692	0.964	0.8308
Small Flood freq.	0	0	0	0				
Small Flood riserate	4.625	7.88	1.043	0.9355	0.7038	0.1031	0.04304	0.7708
Small Flood fallrate	-1.839	-2.893	-0.9682	-1.039	0.5729	0.07329	0.07808	0.9139
Large flood peak	67.45	67.45	0.08451	0.08451	0	0	0.8959	0.8649
Large flood duration	71.5	26.5	0.6503	1.726	0.6294	1.655	0.4014	0.1121
Large flood timing	173	173	0.0444	0.0444	0	0	0.9039	0.8358
Large flood freq.	0	0	0	0				
Large flood riserate	5.121	7.044	1.089	0.4397	0.3755	0.5963	0.4094	0.4615
Large flood fallrate	-1.225	-3.89	-1.238	-1.062	2.175	0.1418	0.05205	0.7628
EFC low flow threshold:								
EFC high flow threshold:		4						
EFC small flood minimum peak flow:		34.1						
EFC large flood minimum peak flow:		55.7						

Appendix H-14
Peak Flows

IHA Non-Parametric RVA Scorecard
North Fork Ranch and Dribble Creek Diversion (Node 2490)

	Pre-impact period: Current Conditions				Post-impact period: Alt. 1a						Hydrologic Alteration
		Coeff. of				Coeff. of			RVA Boundaries		(Middle
	Medians	Dispersion	Minimum	Maximum	Medians	Dispersion	Minimum	Maximum	Low	High	Category)
Parameter Group #1											
October	0	0	0	1.5	0	0	0	0.8	0	0	0.02632
November	0	0	0	1.4	0	0	0	0.055	0	0	0.04762
December	0	0	0	1.6	0	0	0	0.89	0	0	0.04878
January	0	0	0	1.2	0	0	0	0.6	0	0	0.05128
February	0	0	0	0.9	0	0	0	0.2	0	0	0.04878
March	0	0	0	0.3	0	0	0	0.3	0	0	0
April	0	0	0	0.34	0	0	0	0.34	0	0	0
May	0	0	0	12.3	0	0	0	6.9	0	0	0.02381
June	17.05	1.551	0	43.9	6	3.061	0	43.9	1.059	23.46	0.4
July	0	0	0	25.3	0	0	0	25.3	0	2.971	0.1333
August	0	0	0	7.2	0	0	0	7.2	0	0	0.08108
September	0	0	0	0.875	0	0	0	0.875	0	0	0
Parameter Group #2											
1-day minimum	0	0	0	0	0	0	0	0	0	0	0
3-day minimum	0	0	0	0	0	0	0	0	0	0	0
7-day minimum	0	0	0	0	0	0	0	0	0	0	0
30-day minimum	0	0	0	0	0	0	0	0	0	0	0
90-day minimum	0	0	0	0.2389	0	0	0	0.1117	0	0	0.05556
1-day maximum	34.1	0.6642	0	68.4	30	1.034	0.1	68.4	27.32	41.93	-0.1333
3-day maximum	32.63	0.7834	0	67.63	28.73	1.133	0.03333	67.63	24.75	39.38	-0.2
7-day maximum	26.49	0.9683	0	65.51	19.64	1.527	0.01429	65.51	17.12	35.35	-0.2
30-day maximum	18.99	1.281	0	49.41	11.55	1.87	0.003333	49.41	6.934	26.86	0.4
90-day maximum	7.579	1.386	0	26.69	4.99	1.537	0.001111	24.42	3.143	10.72	0.4
Number of zero days	300	0.1933	129	366	308	0.151	212	364	276	313.3	0.125
Base flow index	0	0	0	0	0	0	0	0	0	0	0
Parameter Group #3											
Date of minimum	275	0	275	305	275	0	275	305	275	275	0.02564
Date of maximum	169	0.03962	149	300	169	0.05191	148	293	162.2	173	0
Parameter Group #4											
Low pulse count	0	0	0	0	0	0	0	0	0	0	0
Low pulse duration											
High pulse count	8	1	0	22	8	1	1	21	5	10.82	-0.1176
High pulse duration	3	1.292	1	87	3	1.333	1	46	2	4.575	0.05556
The low pulse threshold is			0								
The high pulse threshold is			0								
Parameter Group #5											
Rise rate	0.7575	1.287	0.175	4.71	0.8	1.034	0.1	2.785	0.4	1.162	0.1875
Fall rate	-0.875	-0.6714	-2.5	-0.12	-0.83	-0.9157	-2.8	-0.1	-1.037	-0.6585	0.0625
Number of reversals	33	0.8636	0	101	31	0.9032	1	78	25	40.64	-0.2778

Assessment of Hydrologic Alteration

	Middle RVA Category			High RVA Category			Low RVA Category		
	Expected	Observed	Alter.	Expected	Observed	Alter.	Expected	Observed	Alter.
Parameter Group #1									
October	38	39	0.02632	7	6	-0.1429			
November	42	44	0.04762	3	1	-0.6667			
December	41	43	0.04878	4	2	-0.5			
January	39	41	0.05128	6	4	-0.3333			
February	41	43	0.04878	4	2	-0.5			
March	44	44	0	1	1	0			
April	44	44	0	1	1	0			
May	42	43	0.02381	3	2	-0.3333			
June	15	21	0.4	15	7	-0.5333	15	17	0.1333
July	30	34	0.1333	15	11	-0.2667			
August	37	40	0.08108	8	5	-0.375			
September	38	38	0	7	7	0			
Parameter Group #2									
1-day minimum	45	45	0	0	0		0	0	
3-day minimum	45	45	0	0	0		0	0	
7-day minimum	45	45	0	0	0		0	0	
30-day minimum	45	45	0	0	0		0	0	
90-day minimum	36	38	0.05556	9	7	-0.2222	0	0	
1-day maximum	15	13	-0.1333	15	13	-0.1333	15	19	0.2667
3-day maximum	15	12	-0.2	15	13	-0.1333	15	20	0.3333
7-day maximum	15	12	-0.2	15	13	-0.1333	15	20	0.3333
30-day maximum	15	21	0.4	15	7	-0.5333	15	17	0.1333
90-day maximum	15	21	0.4	15	6	-0.6	15	18	0.2
Number of zero days	16	18	0.125	15	18	0.2	14	9	-0.3571
Base flow index	45	45	0	0	0		0	0	
Parameter Group #3									
Date of minimum	39	40	0.02564	6	5	-0.1667	0	0	
Date of maximum	16	16	0	14	15	0.07143	15	14	-0.06667
Parameter Group #4									
Low pulse count	45	45	0	0	0		0	0	
Low pulse duration	0	0		0	0		0	0	
High pulse count	17	15	-0.1176	15	17	0.1333	13	13	0
High pulse duration	18	19	0.05556	14	13	-0.07143	12	13	0.08333
Parameter Group #5									
Rise rate	16	19	0.1875	14	10	-0.2857	14	16	0.1429
Fall rate	16	17	0.0625	14	15	0.07143	14	13	-0.07143
Number of reversals	18	13	-0.2778	15	15	0	12	17	0.4167

Non-Parametric IHA Scorecard								
North Fork Ranch and Dribble Ck Diversion (Node 2490)								
Pre-impact period: Current Conditions (1947-1991)				Post-impact period: Full Use (1947-1991)				
NormalizationFactor	1			1				
Mean annual flow	2.04			1.97				
Non-Normalized Mean	2.04			1.97				
Annual C. V.	3.51			3.61				
Flow predictability	0.72			0.74				
Constancy/predictability	0.85			0.85				
% of floods in 60d peric	0.75			0.75				
Flood-free season	1			1				
	MEDIANS		COEFF. of DISP.		DEVIATION FACTOR		SIGNIFICANCE COUNT	
	Pre	Post	Pre	Post	Medians	C.D.	Medians	C.D.
Parameter Group #1								
October	0	0	0	0				
November	0	0	0	0				
December	0	0	0	0				
January	0	0	0	0				
February	0	0	0	0				
March	0	0	0	0				
April	0	0	0	0				
May	0	0	0	0				
June	17.05	17.05	1.551	1.551	0	0	0.998	1
July	0	0	0	0				
August	0	0	0	0				
September	0	0	0	0				
Parameter Group #2								
1-day minimum	0	0	0	0				
3-day minimum	0	0	0	0				
7-day minimum	0	0	0	0				
30-day minimum	0	0	0	0				
90-day minimum	0	0	0	0				
1-day maximum	34.1	34.1	0.6642	0.7396	0	0.1135	0.996	0.7588
3-day maximum	32.63	32.63	0.7834	0.8804	0	0.1239	0.998	0.8228
7-day maximum	26.49	26.49	0.9683	1.085	0	0.121	0.999	0.8208
30-day maximum	18.99	18.35	1.281	1.347	0.03374	0.05175	0.8799	0.8809
90-day maximum	7.579	6.869	1.386	1.504	0.09372	0.08509	0.8939	0.8889
Number of zero days	300	301	0.1933	0.1628	0.003333	0.158	0.8208	0.5936
Base flow index	0	0	0	0				
Parameter Group #3								
Date of minimum	275	275	0	0	0		0.00	
Date of maximum	169	169	0.03962	0.03689	0	0.06897	0.7988	0.8278
Parameter Group #4								
Low pulse count	0	0	0	0				
Low pulse duration								
High pulse count	8	8	1	1	0	0	0.5475	0.9469
High pulse duration	3	3	1.292	1.333	0	0.03226	0.3123	0.9499
Low Pulse Threshold	0							
High Pulse Threshold	0							
Parameter Group #5								
Rise rate	0.7575	0.8	1.287	1.162	0.05611	0.09683	0.7988	0.6737
Fall rate	-0.875	-0.83	-0.6714	-0.7229	0.05143	0.07665	0.8779	0.8148
Number of reversals	33	33	0.8636	1	0	0.1579	0.961	0.5996
EFC Low flows								
October Low Flow	0	0	0	0				
November Low Flow	0	0	0	0				
December Low Flow	0	0	0	0				
January Low Flow	0	0	0	0				
February Low Flow	0	0	0	0				
March Low Flow	0	0	0	0				
April Low Flow	0	0	0	0				
May Low Flow	0	0	0	0				
June Low Flow	0	0	0	0				
July Low Flow	0	0	0	0				
August Low Flow	0	0	0	0				
September Low Flow	0	0	0	0				
EFC Parameters								
High flow peak	9.1	9.94	0.8132	0.7759	0.09231	0.04585	0.4845	0.8519
High flow duration	2.5	2.75	1.2	0.9091	0.1	0.2424	0.8789	0.5636
High flow timing	182	177.5	0.08197	0.08948	0.02459	0.09167	0.6887	0.6637
High flow frequency	2	2	1.5	1.5	0	0	0.04304	0.7758
High flow rise rate	5.6	5.924	0.9129	0.8108	0.05781	0.1118	0.7387	0.6697
High flow fall rate	-3.853	-3.833	-1.034	-0.7205	0.005406	0.3032	0.99	0.3794
Small Flood peak	42.3	42.3	0.1868	0.1868	0	0	0.8969	0.997
Small Flood duration	38	37	0.6053	0.6622	0.02632	0.09401	0.7678	0.7818
Small Flood timing	167	167	0.03552	0.03552	0	0	0.962	0.9499
Small Flood freq.	0	0	0	0				
Small Flood riserate	4.625	4.236	1.043	1.126	0.08403	0.07985	0.8358	0.8388
Small Flood fallrate	-1.839	-1.663	-0.9682	-1.069	0.09579	0.1037	0.7958	0.7778
Large flood peak	67.45	67.45	0.08451	0.08451	0	0	0.9069	0.8669
Large flood duration	71.5	70	0.6503	0.6643	0.02098	0.02143	0.9289	0.8729
Large flood timing	173	173	0.0444	0.0444	0	0	0.9089	0.8398
Large flood freq.	0	0	0	0				
Large flood riserate	5.121	5.133	1.089	1.073	0.002457	0.01479	0.9089	0.8769
Large flood fallrate	-1.225	-1.258	-1.238	-1.218	0.02702	0.01568	0.8779	0.8969
EFC low flow threshold:								
EFC high flow threshold:		4						
EFC small flood minimum peak flov		34.1						
EFC large flood minimum peak flow		55.7						

Appendix H-14
Peak Flows

IHA Non-Parametric RVA Scorecard											
North Fork Ranch and Dribble Ck Diversion (Node 2490)											
											Hydrologic
	Pre-impact period: Current Conditions				Post-impact period: Full Use						Alteration
		Coeff. of				Coeff. of			RVA Boundaries		(Middle
	Medians	Dispersion	Minimum	Maximum	Medians	Dispersion	Minimum	Maximum	Low	High	Category)
Parameter Group #1											
October	0	0	0	1.5	0	0	0	0.8	0	0	0
November	0	0	0	1.4	0	0	0	0.85	0	0	0.02381
December	0	0	0	1.6	0	0	0	1.4	0	0	0.02439
January	0	0	0	1.2	0	0	0	1.2	0	0	0.02564
February	0	0	0	0.9	0	0	0	0.9	0	0	0
March	0	0	0	0.3	0	0	0	0.3	0	0	0
April	0	0	0	0.34	0	0	0	0.34	0	0	0
May	0	0	0	12.3	0	0	0	11.8	0	0	0.02381
June	17.05	1.551	0	43.9	17.05	1.551	0	43.9	1.059	23.46	-0.1333
July	0	0	0	25.3	0	0	0	25.3	0	2.971	0.06667
August	0	0	0	7.2	0	0	0	7.2	0	0	0
September	0	0	0	0.875	0	0	0	0.875	0	0	0
Parameter Group #2											
1-day minimum	0	0	0	0	0	0	0	0	0	0	0
3-day minimum	0	0	0	0	0	0	0	0	0	0	0
7-day minimum	0	0	0	0	0	0	0	0	0	0	0
30-day minimum	0	0	0	0	0	0	0	0	0	0	0
90-day minimum	0	0	0	0.2389	0	0	0	0.1844	0	0	0.02778
1-day maximum	34.1	0.6642	0	68.4	34.1	0.7396	0.4	68.4	27.32	41.93	-0.06667
3-day maximum	32.63	0.7834	0	67.63	32.63	0.8804	0.2033	67.63	24.75	39.38	-0.06667
7-day maximum	26.49	0.9683	0	65.51	26.49	1.085	0.1014	65.51	17.12	35.35	-0.1333
30-day maximum	18.99	1.281	0	49.41	18.35	1.347	0.02367	49.41	6.934	26.86	0
90-day maximum	7.579	1.386	0	26.69	6.869	1.504	0.007889	26.61	3.143	10.72	0.06667
Number of zero days	300	0.1933	129	366	301	0.1628	152	363	276	313.3	0.0625
Base flow index	0	0	0	0	0	0	0	0	0	0	0
Parameter Group #3											
Date of minimum	275	0	275	305	275	0	275	305	275	275	0.02564
Date of maximum	169	0.03962	149	300	169	0.03689	149	197	162.2	173	0.125
Parameter Group #4											
Low pulse count	0	0	0	0	0	0	0	0	0	0	0
Low pulse duration											
High pulse count	8	1	0	22	8	1	1	21	5	10.82	-0.05882
High pulse duration	3	1.292	1	87	3	1.333	1	87	2	4.575	0.05556
The low pulse threshold is			0								
The high pulse threshold is			0								
Parameter Group #5											
Rise rate	0.7575	1.287	0.175	4.71	0.8	1.162	0.175	4.71	0.4	1.162	0.0625
Fall rate	-0.875	-0.6714	-2.5	-0.12	-0.83	-0.7229	-2.49	-0.19	-1.037	-0.6585	0
Number of reversals	33	0.8636	0	101	33	1	3	91	25	40.64	-0.1111
Assessment of Hydrologic Alteration											
	Middle RVA Category			High RVA Category			Low RVA Category				
	Expected	Observed	Alter.	Expected	Observed	Alter.	Expected	Observed	Alter.		
Parameter Group #1											
October	38	38	0	7	7	0					
November	42	43	0.02381	3	2	-0.3333					
December	41	42	0.02439	4	3	-0.25					
January	39	40	0.02564	6	5	-0.1667					
February	41	41	0	4	4	0					
March	44	44	0	1	1	0					
April	44	44	0	1	1	0					
May	42	43	0.02381	3	2	-0.3333					
June	15	13	-0.1333	15	15	0	15	17	0.1333		
July	30	32	0.06667	15	13	-0.1333					
August	37	37	0	8	8	0					
September	38	38	0	7	7	0					
Parameter Group #2											
1-day minimum	45	45	0	0	0		0	0			
3-day minimum	45	45	0	0	0		0	0			
7-day minimum	45	45	0	0	0		0	0			
30-day minimum	45	45	0	0	0		0	0			
90-day minimum	36	37	0.02778	9	8	-0.1111	0	0			
1-day maximum	15	14	-0.06667	15	15	0	15	16	0.06667		
3-day maximum	15	14	-0.06667	15	15	0	15	16	0.06667		
7-day maximum	15	13	-0.1333	15	15	0	15	17	0.1333		
30-day maximum	15	15	0	15	15	0	15	15	0		
90-day maximum	15	16	0.06667	15	14	-0.06667	15	15	0		
Number of zero days	16	17	0.0625	15	16	0.06667	14	12	-0.1429		
Base flow index	45	45	0	0	0		0	0			
Parameter Group #3											
Date of minimum	39	40	0.02564	6	5	-0.1667	0	0			
Date of maximum	16	18	0.125	14	13	-0.07143	15	14	-0.06667		
Parameter Group #4											
Low pulse count	45	45	0	0	0		0	0			
Low pulse duration	0	0		0	0		0	0			
High pulse count	17	16	-0.05882	15	16	0.06667	13	13	0		
High pulse duration	18	19	0.05556	14	14	0	12	12	0		
Parameter Group #5											
Rise rate	16	17	0.0625	14	14	0	14	14	0		
Fall rate	16	16	0	14	16	0.1429	14	13	-0.07143		
Number of reversals	18	16	-0.1111	15	14	-0.06667	12	15	0.25		

Non-Parametric IHA Scorecard								
Main Ranch Creek Diversion (Node 2500)								
Pre-impact period: Current Conditions (1947-1991)				Post-impact period: Alt. 1a (1947-1991)				
NormalizationFactor	1			1				
Mean annual flow	3.92			3.31				
Non-Normalized Mean Fl	3.92			3.31				
Annual C. V.	2.2			2.26				
Flow predictability	0.63			0.64				
Constancy/predictability	0.57			0.59				
% of floods in 60d period	0.67			0.67				
Flood-free season	111			170				
	MEDIANS		COEFF. of DISP.		DEVIATION FACTOR		SIGNIFICANCE COUNT	
	Pre	Post	Pre	Post	Medians	C.D.	Medians	C.D.
Parameter Group #1								
October	1.5	1.5	0.5667	0.6	0	0.05882	0.4535	0.7538
November	1.4	1.4	0.4821	0.4821	0	0	0.9439	1
December	1.2	1.2	0.3333	0.3333	0	0	0.9239	0.974
January	1	1	0.2	0.2	0	0	0.009009	0.6416
February	0.9	0.9	0.3333	0.3333	0	0	0.3253	0.8629
March	0.8	0.8	0.375	0.375	0	0	0.1111	0.8619
April	1.1	1.1	0.6136	0.6364	0	0.03704	0.9359	0.8889
May	4	4	0.3	0.175	0	0.4167	0.00	0.6807
June	20.85	6.65	1.386	2.812	0.6811	1.029	0.4084	0.2422
July	4	4	0.9875	0	0	1	0.00	0.1982
August	2.7	2.6	0.5741	0.5962	0.03704	0.03846	0.8108	0.9329
September	1.6	1.6	0.5312	0.5312	0	0	0.9339	0.999
Parameter Group #2								
1-day minimum	0.6	0.6	0.4167	0.4167	0	0	0.9099	1
3-day minimum	0.6	0.6	0.4444	0.4444	0	0	0.8298	0.984
7-day minimum	0.7	0.7	0.449	0.449	0	0	0.9079	1
30-day minimum	0.8	0.8	0.3229	0.3229	0	0	0.9239	1
90-day minimum	0.8689	0.8689	0.2545	0.2545	0	0	0.998	1
1-day maximum	43.3	38.1	0.7102	1.228	0.1201	0.7297	0.4985	0.1031
3-day maximum	38.33	32.3	0.9307	1.384	0.1574	0.4874	0.3674	0.1602
7-day maximum	33.69	25.01	1.023	1.491	0.2574	0.4568	0.2372	0.1321
30-day maximum	23.99	13.54	1.255	1.833	0.4358	0.4603	0.3053	0.1982
90-day maximum	11.03	7.476	1.099	1.198	0.3223	0.0895	0.3423	0.7548
Number of zero days	0	0	0	0				
Base flow index	0.1983	0.2331	0.9389	0.7293	0.1755	0.2232	0.2022	0.3944
Parameter Group #3								
Date of minimum	58	58	0.3415	0.3415	0	0	0.9399	0.995
Date of maximum	168	168	0.03552	0.03689	0	0.03846	0.7047	0.8909
Parameter Group #4								
Low pulse count	5	5	1	1	0	0	0.4765	0.7638
Low pulse duration	5	6	1.5	1.583	0.2	0.05556	0.6146	0.9269
High pulse count	3	3	1.167	1	0	0.1429	0.2503	0.6807
High pulse duration	11.5	17	5.196	4.412	0.4783	0.1509	0.7397	0.8729
Low Pulse Threshold	1.1							
High Pulse Threshold	2							
Parameter Group #5								
Rise rate	0.2	0.2	0.375	0.375	2.98E-07	3.179E-07	0.2092	0.999
Fall rate	-0.2	-0.2	-0.75	-0.625	2.98E-07	0.1667	0.3113	0.8498
Number of reversals	64	62	0.4219	0.5161	0.03125	0.2234	0.6006	0.5255
EFC Low flows								
October Low Flow	1.5	1.5	0.5667	0.6	0	0.05882	0.4535	0.7538
November Low Flow	1.4	1.4	0.4821	0.4821	0	0	0.9439	1
December Low Flow	1.2	1.2	0.3333	0.3333	0	0	0.9239	0.974
January Low Flow	1	1	0.2	0.2	0	0	0.009009	0.6416
February Low Flow	0.9	0.9	0.3333	0.3333	0	0	0.3253	0.8629
March Low Flow	0.8	0.8	0.375	0.375	0	0	0.1111	0.8619
April Low Flow	1.1	1.1	0.6136	0.6364	0	0.03704	0.9359	0.8679
May Low Flow	3.6	4	0.5556	0.4438	0.1111	0.2013	0.3173	0.5285
June Low Flow	4	4	0	0	0		0.00	
July Low Flow	4	4	0	0	0		0.00	
August Low Flow	2.65	2.6	0.4906	0.5962	0.01887	0.2152	0.8899	0.5626
September Low Flow	1.6	1.6	0.5	0.5312	0	0.0625	0.9339	0.7988
EFC Parameters								
High flow peak	10.95	11.4	1.085	1.061	0.0411	0.02138	0.7878	0.9289
High flow duration	3	3	1.333	1.25	0	0.0625	0.7287	0.8699
High flow timing	184	181.8	0.06318	0.06762	0.0123	0.07027	0.4585	0.8028
High flow frequency	2	2	1	1.25	0	0.25	0.1061	0.3724
High flow rise rate	4.775	4.088	1.511	1.561	0.144	0.03302	0.4795	0.8999
High flow fall rate	-3.163	-2.522	-1.136	-1.57	0.2026	0.3816	0.6647	0.2162
Small Flood peak	53.9	53.7	0.1892	0.2238	0.003711	0.1828	0.8258	0.6757
Small Flood duration	38	23	0.6316	0.663	0.3947	0.04982	0.0951	0.8739
Small Flood timing	167	167	0.03552	0.03279	0	0.07692	0.9469	0.8228
Small Flood freq.	0	0	0	0				
Small Flood riserate	5.085	8.317	1.093	1.025	0.6357	0.06279	0.07708	0.8739
Small Flood fallrate	-2.221	-3.413	-0.8881	-0.9519	0.537	0.07189	0.1091	0.9249
Large flood peak	85.85	85.85	0.08503	0.08503	0	0	0.8999	0.8719
Large flood duration	74	28.5	0.6689	1.614	0.6149	1.413	0.4084	0.1261
Large flood timing	173	173	0.0444	0.0444	0	0	0.8999	0.8418
Large flood freq.	0	0	0	0				
Large flood riserate	6.201	8.303	1.034	0.4238	0.339	0.5903	0.4444	0.5005
Large flood fallrate	-1.497	-4.438	-1.297	-1.129	1.965	0.1296	0.06206	0.7888
EFC low flow threshold:								
EFC high flow threshold:		4						
EFC small flood minimum peak flow:		43.3						
EFC large flood minimum peak flow:		70.96						

IHA Non-Parametric RVA Scorecard
Main Ranch Creek Diversion (Node 2500)

	Pre-impact period: Current Conditions				Post-impact period: Alt. 1a						Hydrologic Alteration
		Coeff. of				Coeff. of			RVA Boundaries		(Middle
	Medians	Dispersion	Minimum	Maximum	Medians	Dispersion	Minimum	Maximum	Low	High	Category)
Parameter Group #1											
October	1.5	0.5667	0.5	2	1.5	0.6	0.5	2	1.118	1.8	0
November	1.4	0.4821	0.6	2	1.4	0.4821	0.6	2	1.218	1.632	0
December	1.2	0.3333	0.3	1.9	1.2	0.3333	0.3	1.9	1	1.3	0
January	1	0.2	0.5	1.5	1	0.2	0.5	1.5	1	1.1	0
February	0.9	0.3333	0.4	1.2	0.9	0.3333	0.4	1.2	0.8	1	0
March	0.8	0.375	0.3	1.3	0.8	0.375	0.3	1.3	0.7	0.9	0
April	1.1	0.6136	0.5	2	1.1	0.6364	0.5	2	0.959	1.4	-0.0625
May	4	0.3	2	15.6	4	0.175	2	8.9	4	4	0.1034
June	20.85	1.386	2.8	56.05	6.65	2.812	2	56.05	4	29.86	0.2593
July	4	0.9875	2.5	32.3	4	0	2	32.3	4	4	0.04
August	2.7	0.5741	1.3	9.1	2.6	0.5962	1.3	9.1	2.3	3.082	0
September	1.6	0.5312	0.6	3	1.6	0.5312	0.6	3	1.3	1.982	0
Parameter Group #2											
1-day minimum	0.6	0.4167	0.1	1	0.6	0.4167	0.1	1	0.5	0.7	0
3-day minimum	0.6	0.4444	0.3	1	0.6	0.4444	0.3	1	0.5	0.7	0
7-day minimum	0.7	0.449	0.3	1.029	0.7	0.449	0.3	1.029	0.5571	0.7831	0
30-day minimum	0.8	0.3229	0.31	1.07	0.8	0.3229	0.31	1.07	0.6751	0.8658	0
90-day minimum	0.8689	0.2545	0.4311	1.184	0.8689	0.2545	0.4311	1.184	0.8354	0.9636	0
1-day maximum	43.3	0.7102	2.8	87.1	38.1	1.228	2.8	87.1	34.76	53.36	-0.2
3-day maximum	38.33	0.9307	2.8	86.1	32.3	1.384	2.8	86.1	25.96	50.11	-0.06667
7-day maximum	33.69	1.023	2.8	83.41	25.01	1.491	2.8	83.41	20.23	43.08	-0.06667
30-day maximum	23.99	1.255	2.8	62.88	13.54	1.833	2.453	62.88	9.203	32.75	0.4
90-day maximum	11.03	1.099	2.799	33.96	7.476	1.198	2.151	31.5	5.504	15.17	0.4
Number of zero days	0	0	0	0	0	0	0	0	0	0	0
Base flow index	0.1983	0.9389	0.05249	0.5113	0.2331	0.7293	0.06047	0.5196	0.1417	0.2366	0.06667
Parameter Group #3											
Date of minimum	58	0.3415	21	348	58	0.3415	21	348	68.9	274.8	0
Date of maximum	168	0.03552	136	207	168	0.03689	136	207	162.2	172.8	0
Parameter Group #4											
Low pulse count	5	1	0	18	5	1	0	18	4	7	-0.05263
Low pulse duration	5	1.5	1	181	6	1.583	1	181	3	7.15	-0.1
High pulse count	3	1.167	1	13	3	1	1	7	2	4	0
High pulse duration	11.5	5.196	1	124	17	4.412	1	124	3.18	58.46	0.2
The low pulse threshold is			1.1								
The high pulse threshold is			2								
Parameter Group #5											
Rise rate	0.2	0.375	0.1	0.5	0.2	0.375	0.1	0.55	0.2	0.2	0.125
Fall rate	-0.2	-0.75	-0.58	-0.1	-0.2	-0.625	-0.5	-0.1	-0.2	-0.2	-0.2381
Number of reversals	64	0.4219	39	120	62	0.5161	38	114	59	75.82	-0.1875

Assessment of Hydrologic Alteration

	Middle RVA Category			High RVA Category			Low RVA Category		
	Expected	Observed	Alter.	Expected	Observed	Alter.	Expected	Observed	Alter.
Parameter Group #1									
October	17	17	0	13	13	0	15	15	0
November	15	15	0	15	15	0	15	15	0
December	26	26	0	12	12	0	7	7	0
January	22	22	0	9	9	0	14	14	0
February	24	24	0	9	9	0	12	12	0
March	24	24	0	12	12	0	9	9	0
April	16	15	-0.0625	14	15	0.07143	15	15	0
May	29	32	0.1034	3	1	-0.6667	13	12	-0.07692
June	27	34	0.2593	15	6	-0.6	3	5	0.6667
July	25	26	0.04	13	10	-0.2308	7	9	0.2857
August	16	16	0	15	14	-0.06667	14	15	0.07143
September	17	17	0	15	15	0	13	13	0
Parameter Group #2									
1-day minimum	26	26	0	8	8	0	11	11	0
3-day minimum	22	22	0	14	14	0	9	9	0
7-day minimum	16	16	0	15	15	0	14	14	0
30-day minimum	15	15	0	15	15	0	15	15	0
90-day minimum	15	15	0	15	15	0	15	15	0
1-day maximum	15	12	-0.2	15	13	-0.1333	15	20	0.3333
3-day maximum	15	14	-0.06667	15	12	-0.2	15	19	0.2667
7-day maximum	15	14	-0.06667	15	11	-0.2667	15	20	0.3333
30-day maximum	15	21	0.4	15	6	-0.6	15	18	0.2
90-day maximum	15	21	0.4	15	6	-0.6	15	18	0.2
Number of zero days	45	45	0	0	0		0	0	
Base flow index	15	16	0.06667	15	22	0.4667	15	7	-0.5333
Parameter Group #3									
Date of minimum	15	15	0	15	15	0	15	15	0
Date of maximum	15	15	0	15	15	0	15	15	0
Parameter Group #4									
Low pulse count	19	18	-0.05263	13	12	-0.07692	13	15	0.1538
Low pulse duration	20	18	-0.1	14	16	0.1429	10	10	0
High pulse count	22	22	0	12	10	-0.1667	11	13	0.1818
High pulse duration	15	18	0.2	15	15	0	15	12	-0.2
Parameter Group #5									
Rise rate	24	27	0.125	9	6	-0.3333	12	12	0
Fall rate	21	16	-0.2381	12	18	0.5	12	11	-0.08333
Number of reversals	16	13	-0.1875	15	14	-0.06667	14	18	0.2857

Non-Parametric IHA Scorecard								
Main Ranch Creek Diversion (Node 2500)								
Pre-impact period: Current Conditions (1947-1991)				Post-impact period: Full Use (1947-1991)				
NormalizationFactor	1			1				
Mean annual flow	3.92			3.85				
Non-Normalized Mean Fl	3.92			3.85				
Annual C. V.	2.2			2.23				
Flow predictability	0.63			0.63				
Constancy/predictability	0.57			0.57				
% of floods in 60d period	0.67			0.67				
Flood-free season	111			111				
	MEDIANS		COEFF. of DISP.		DEVIATION FACTOR		SIGNIFICANCE COUNT	
	Pre	Post	Pre	Post	Medians	C.D.	Medians	C.D.
Parameter Group #1								
October	1.5	1.5	0.5667	0.6	0	0.05882	0.4725	0.7097
November	1.4	1.4	0.4821	0.4821	0	0	0.9429	0.998
December	1.2	1.2	0.3333	0.3333	0	0	0.9069	0.976
January	1	1	0.2	0.2	0	0	0.008008	0.6126
February	0.9	0.9	0.3333	0.3333	0	0	0.3143	0.8719
March	0.8	0.8	0.375	0.375	0	0	0.1181	0.8529
April	1.1	1.1	0.6136	0.6364	0	0.03704	0.9369	0.8709
May	4	4	0.3	0.175	0	0.4167	0.00	0.6537
June	20.85	20.85	1.386	1.424	0	0.02786	0.995	0.985
July	4	4	0.9875	0.055	0	0.9443	0.00	0.6306
August	2.7	2.6	0.5741	0.5962	0.03704	0.03846	0.8128	0.9149
September	1.6	1.6	0.5312	0.5312	0	0	0.9419	1
Parameter Group #2								
1-day minimum	0.6	0.6	0.4167	0.4167	0	0	0.9149	1
3-day minimum	0.6	0.6	0.4444	0.4444	0	0	0.8629	0.989
7-day minimum	0.7	0.7	0.449	0.449	0	0	0.9259	1
30-day minimum	0.8	0.8	0.3229	0.3229	0	0	0.9229	1
90-day minimum	0.8689	0.8689	0.2545	0.2545	0	0	0.998	1
1-day maximum	43.3	43.3	0.7102	0.7968	0	0.122	0.998	0.7928
3-day maximum	38.33	36.7	0.9307	0.9885	0.04261	0.06207	0.9269	0.8799
7-day maximum	33.69	33.69	1.023	1.074	0	0.04965	0.998	0.8388
30-day maximum	23.99	23.17	1.255	1.31	0.03432	0.04388	0.8719	0.8899
90-day maximum	11.03	10.57	1.099	1.185	0.04198	0.07746	0.9239	0.8549
Number of zero days	0	0	0	0				
Base flow index	0.1983	0.2041	0.9389	0.9771	0.02937	0.04074	0.8959	0.8999
Parameter Group #3								
Date of minimum	58	58	0.3415	0.3415	0	0	0.9329	0.998
Date of maximum	168	168	0.03552	0.03279	0	0.07692	0.6587	0.7467
Parameter Group #4								
Low pulse count	5	5	1	1	0	0	0.4965	0.7838
Low pulse duration	5	6	1.5	1.583	0.2	0.05556	0.6486	0.9239
High pulse count	3	3	1.167	1.167	0	0	0.1532	0.8739
High pulse duration	11.5	11.5	5.196	6.522	0	0.2552	0.999	0.7508
Low Pulse Threshold	1.1							
High Pulse Threshold	2							
Parameter Group #5								
Rise rate	0.2	0.2	0.375	0.25	0	0.3333	0.1802	0.8559
Fall rate	-0.2	-0.2	-0.75	-0.75	1.49E-07	2.384E-07	0.5946	0.979
Number of reversals	64	64	0.4219	0.4609	0	0.09259	0.8929	0.8198
EFC Low flows								
October Low Flow	1.5	1.5	0.5667	0.6	0	0.05882	0.4725	0.7097
November Low Flow	1.4	1.4	0.4821	0.4821	0	0	0.9429	0.998
December Low Flow	1.2	1.2	0.3333	0.3333	0	0	0.9069	0.976
January Low Flow	1	1	0.2	0.2	0	0	0.008008	0.6126
February Low Flow	0.9	0.9	0.3333	0.3333	0	0	0.3143	0.8719
March Low Flow	0.8	0.8	0.375	0.375	0	0	0.1181	0.8529
April Low Flow	1.1	1.1	0.6136	0.6364	0	0.03704	0.9369	0.8619
May Low Flow	3.6	2.8	0.5556	0.7143	0.2222	0.2857	0.7678	0.5295
June Low Flow	4	4	0	0	0		0.00	
July Low Flow	4	4	0	0	0		0.00	
August Low Flow	2.65	2.6	0.4906	0.5	0.01887	0.01923	0.8679	0.9199
September Low Flow	1.6	1.6	0.5	0.5312	0	0.0625	0.9419	0.8038
EFC Parameters								
High flow peak	10.95	11.23	1.085	1.066	0.02511	0.01741	0.9339	0.9409
High flow duration	3	3	1.333	1.125	0	0.1563	0.4695	0.5976
High flow timing	184	181.5	0.06318	0.06796	0.01366	0.07568	0.5546	0.7928
High flow frequency	2	2	1	1	0	0	0.03604	0.4735
High flow rise rate	4.775	4.988	1.511	1.452	0.0445	0.03896	0.8228	0.9219
High flow fall rate	-3.163	-2.994	-1.136	-1.299	0.05323	0.1435	0.7277	0.5906
Small Flood peak	53.9	53.9	0.1892	0.1892	0	0	0.958	0.998
Small Flood duration	38	34	0.6316	0.7059	0.1053	0.1176	0.4394	0.6977
Small Flood timing	167	167	0.03552	0.03552	0	0	0.967	0.96
Small Flood freq.	0	0	0	0				
Small Flood riserate	5.085	4.913	1.093	1.116	0.03384	0.02109	0.8819	0.963
Small Flood fallrate	-2.221	-2.33	-0.8881	-0.8433	0.04934	0.05045	0.5766	0.8579
Large flood peak	85.85	85.85	0.08503	0.08503	0	0	0.9139	0.8729
Large flood duration	74	73	0.6689	0.6644	0.01351	0.00678	0.9499	0.9289
Large flood timing	173	173	0.0444	0.0444	0	0	0.9159	0.8388
Large flood freq.	0	0	0	0				
Large flood riserate	6.201	6.174	1.034	1.011	0.004393	0.02268	0.8979	0.8699
Large flood fallrate	-1.497	-1.537	-1.297	-1.208	0.02681	0.06817	0.9139	0.8328
EFC low flow threshold:								
EFC high flow threshold:		4						
EFC small flood minimum peak flow:		43.3						
EFC large flood minimum peak flow:		70.96						

Appendix H-14
Peak Flows

IHA Non-Parametric RVA Scorecard
Main Ranch Creek Diversion (Node 2500)

	Pre-impact period: Current Conditions				Post-impact period: Full Use						Hydrologic Alteration
		Coeff. of				Coeff. of			RVA Boundaries		(Middle
	Medians	Dispersion	Minimum	Maximum	Medians	Dispersion	Minimum	Maximum	Low	High	Category)
Parameter Group #1											
October	1.5	0.5667	0.5	2	1.5	0.6	0.5	2	1.118	1.8	0
November	1.4	0.4821	0.6	2	1.4	0.4821	0.6	2	1.218	1.632	0
December	1.2	0.3333	0.3	1.9	1.2	0.3333	0.3	1.9	1	1.3	0
January	1	0.2	0.5	1.5	1	0.2	0.5	1.5	1	1.1	0
February	0.9	0.3333	0.4	1.2	0.9	0.3333	0.4	1.2	0.8	1	0
March	0.8	0.375	0.3	1.3	0.8	0.375	0.3	1.3	0.7	0.9	0
April	1.1	0.6136	0.5	2	1.1	0.6364	0.5	2	0.959	1.4	-0.0625
May	4	0.3	2	15.6	4	0.175	2	15.1	4	4	0.06897
June	20.85	1.386	2.8	56.05	20.85	1.424	2	56.05	4	29.86	-0.07407
July	4	0.9875	2.5	32.3	4	0.055	2	32.3	4	4	0
August	2.7	0.5741	1.3	9.1	2.6	0.5962	1.3	9.1	2.3	3.082	0
September	1.6	0.5312	0.6	3	1.6	0.5312	0.6	3	1.3	1.982	0
Parameter Group #2											
1-day minimum	0.6	0.4167	0.1	1	0.6	0.4167	0.1	1	0.5	0.7	0
3-day minimum	0.6	0.4444	0.3	1	0.6	0.4444	0.3	1	0.5	0.7	0
7-day minimum	0.7	0.449	0.3	1.029	0.7	0.449	0.3	1.029	0.5571	0.7831	0
30-day minimum	0.8	0.3229	0.31	1.07	0.8	0.3229	0.31	1.07	0.6751	0.8658	0
90-day minimum	0.8689	0.2545	0.4311	1.184	0.8689	0.2545	0.4311	1.184	0.8354	0.9636	0
1-day maximum	43.3	0.7102	2.8	87.1	43.3	0.7968	2.8	87.1	34.76	53.36	-0.06667
3-day maximum	38.33	0.9307	2.8	86.1	36.7	0.9885	2.8	86.1	25.96	50.11	-0.06667
7-day maximum	33.69	1.023	2.8	83.41	33.69	1.074	2.8	83.41	20.23	43.08	-0.06667
30-day maximum	23.99	1.255	2.8	62.88	23.17	1.31	2.453	62.88	9.203	32.75	-0.1333
90-day maximum	11.03	1.099	2.799	33.96	10.57	1.185	2.151	33.85	5.504	15.17	0
Number of zero days	0	0	0	0	0	0	0	0	0	0	0
Base flow index	0.1983	0.9389	0.05249	0.5113	0.2041	0.9771	0.05355	0.5133	0.1417	0.2366	0
Parameter Group #3											
Date of minimum	58	0.3415	21	348	58	0.3415	21	348	68.9	274.8	0
Date of maximum	168	0.03552	136	207	168	0.03279	136	207	162.2	172.8	0.1333
Parameter Group #4											
Low pulse count	5	1	0	18	5	1	0	18	4	7	-0.05263
Low pulse duration	5	1.5	1	181	6	1.583	1	181	3	7.15	-0.1
High pulse count	3	1.167	1	13	3	1.167	1	10	2	4	-0.04545
High pulse duration	11.5	5.196	1	124	11.5	6.522	1	124	3.18	58.46	0.1333
The low pulse threshold is			1.1								
The high pulse threshold is			2								
Parameter Group #5											
Rise rate	0.2	0.375	0.1	0.5	0.2	0.25	0.1	0.65	0.2	0.2	0
Fall rate	-0.2	-0.75	-0.58	-0.1	-0.2	-0.75	-0.7	-0.1	-0.2	-0.2	-0.04762
Number of reversals	64	0.4219	39	120	64	0.4609	39	122	59	75.82	-0.1875

Assessment of Hydrologic Alteration

	Middle RVA Category			High RVA Category			Low RVA Category		
	Expected	Observed	Alter.	Expected	Observed	Alter.	Expected	Observed	Alter.
Parameter Group #1									
October	17	17	0	13	13	0	15	15	0
November	15	15	0	15	15	0	15	15	0
December	26	26	0	12	12	0	7	7	0
January	22	22	0	9	9	0	14	14	0
February	24	24	0	9	9	0	12	12	0
March	24	24	0	12	12	0	9	9	0
April	16	15	-0.0625	14	15	0.07143	15	15	0
May	29	31	0.06897	3	2	-0.3333	13	12	-0.07692
June	27	25	-0.07407	15	15	0	3	5	0.6667
July	25	25	0	13	11	-0.1538	7	9	0.2857
August	16	16	0	15	14	-0.06667	14	15	0.07143
September	17	17	0	15	15	0	13	13	0
Parameter Group #2									
1-day minimum	26	26	0	8	8	0	11	11	0
3-day minimum	22	22	0	14	14	0	9	9	0
7-day minimum	16	16	0	15	15	0	14	14	0
30-day minimum	15	15	0	15	15	0	15	15	0
90-day minimum	15	15	0	15	15	0	15	15	0
1-day maximum	15	14	-0.06667	15	15	0	15	16	0.06667
3-day maximum	15	14	-0.06667	15	15	0	15	16	0.06667
7-day maximum	15	14	-0.06667	15	15	0	15	16	0.06667
30-day maximum	15	13	-0.1333	15	16	0.06667	15	16	0.06667
90-day maximum	15	15	0	15	15	0	15	15	0
Number of zero days	45	45	0	0	0		0	0	
Base flow index	15	15	0	15	16	0.06667	15	14	-0.06667
Parameter Group #3									
Date of minimum	15	15	0	15	15	0	15	15	0
Date of maximum	15	17	0.1333	15	13	-0.1333	15	15	0
Parameter Group #4									
Low pulse count	19	18	-0.05263	13	12	-0.07692	13	15	0.1538
Low pulse duration	20	18	-0.1	14	16	0.1429	10	10	0
High pulse count	22	21	-0.04545	12	11	-0.08333	11	13	0.1818
High pulse duration	15	17	0.1333	15	15	0	15	13	-0.1333
Parameter Group #5									
Rise rate	24	24	0	9	9	0	12	12	0
Fall rate	21	20	-0.04762	12	13	0.08333	12	12	0
Number of reversals	16	13	-0.1875	15	15	0	14	17	0.2143

Non-Parametric IHA Scorecard								
Middle and South Fork Ranch Ck Diversion (Node 2520)								
Pre-impact period: Current Conditions (1947-1991)				Post-impact period: Alt. 1a (1947-1991)				
NormalizationFactor	1			1				
Mean annual flow	3.16			1.93				
Non-Normalized Mean Fl	3.16			1.93				
Annual C. V.	4.04			5.51				
Flow predictability	0.85			0.91				
Constancy/predictability	0.9			0.94				
% of floods in 60d period	0.5			0.5				
Flood-free season	24			64				
	MEDIANS		COEFF. of DISP.		DEVIATION FACTOR		SIGNIFICANCE COUNT	
	Pre	Post	Pre	Post	Medians	C.D.	Medians	C.D.
Parameter Group #1								
October	0	0	0	0				
November	0	0	0	0				
December	0	0	0	0				
January	0	0	0	0				
February	0	0	0	0				
March	0	0	0	0				
April	0	0	0	0				
May	0	0	0	0				
June	0.76	0	61.41	0	1	1	0.00	0.00
July	0	0	0	0				
August	0	0	0	0				
September	0	0	0	0				
Parameter Group #2								
1-day minimum	0	0	0	0				
3-day minimum	0	0	0	0				
7-day minimum	0	0	0	0				
30-day minimum	0	0	0	0				
90-day minimum	0	0	0	0				
1-day maximum	62.6	50.5	1.196	1.5	0.1933	0.254	0.4034	0.2963
3-day maximum	53.63	38.87	1.368	1.808	0.2753	0.3213	0.3213	0.2212
7-day maximum	48.56	31.87	1.339	1.952	0.3436	0.4578	0.2803	0.1582
30-day maximum	27.62	9.085	1.821	3.968	0.6711	1.179	0.3564	0.1241
90-day maximum	10.01	3.033	2.006	4.51	0.6969	1.249	0.3594	0.1281
Number of zero days	332	347	0.1506	0.08501	0.04518	0.4355	0.06206	0.05205
Base flow index	0	0	0	0				
Parameter Group #3								
Date of minimum	275	275	0	0	0		0.00	
Date of maximum	173	174	0.07104	0.09699	0.005464	0.3654	0.5956	0.6436
Parameter Group #4								
Low pulse count	0	0	0	0				
Low pulse duration								
High pulse count	3	3	1.333	1.5	0	0.125	0.4885	0.5045
High pulse duration	3	2	1.875	1.75	0.3333	0.06667	0.3253	0.9179
Low Pulse Threshold	0							
High Pulse Threshold	0							
Parameter Group #5								
Rise rate	2.45	1.74	1.373	5.368	0.2898	2.908	0.4414	0.009009
Fall rate	-2.3	-2.25	-0.8793	-1.28	0.02174	0.4556	0.9399	0.2162
Number of reversals	13	7	1.308	2.071	0.4615	0.584	0.1391	0.09209
EFC Low flows								
October Low Flow	0	0	0	0				
November Low Flow	0	0	0	0				
December Low Flow	0	0	0	0				
January Low Flow	0	0	0	0				
February Low Flow	0	0	0	0				
March Low Flow	0	0	0	0				
April Low Flow	0	0	0	0				
May Low Flow	0	0	0	0				
June Low Flow	0	0	0	0				
July Low Flow	0	0	0	0				
August Low Flow	0	0	0	0				
September Low Flow	0	0	0	0				
EFC Parameters								
High flow peak	17	17.85	0.9468	1.397	0.05	0.4751	0.7237	0.2082
High flow duration	2	2	1.25	0.8125	0	0.35	0.2613	0.4955
High flow timing	189	188.8	0.07172	0.1052	0.001366	0.4667	0.9019	0.1031
High flow frequency	1	1	3	2	0	0.3333	0.08809	0.2162
High flow rise rate	13.9	14.54	1.388	0.9119	0.04631	0.3431	0.8649	0.3724
High flow fall rate	-6.5	-8.263	-1.271	-1.06	0.2712	0.166	0.2292	0.6597
Small Flood peak	73.65	75.7	0.1911	0.2249	0.02783	0.1767	0.6847	0.6086
Small Flood duration	35.5	18	0.6972	1.306	0.493	0.8726	0.1011	0.1001
Small Flood timing	168.5	166.5	0.02527	0.02869	0.01093	0.1351	0.3363	0.7277
Small Flood freq.	0	0	0	0				
Small Flood riserate	11.26	23.74	1.414	2.047	1.107	0.4476	0.01001	0.5305
Small Flood fallrate	-3.606	-11.99	-0.9374	-2.631	2.326	1.807	0.02603	0.06006
Large flood peak	125.4	125.4	0.08476	0.08476	0	0	0.8999	0.8639
Large flood duration	50	13	1.64	3.846	0.74	1.345	0.6897	0.2252
Large flood timing	173	173	0.0444	0.0444	0	0	0.9129	0.8378
Large flood freq.	0	0	0	0				
Large flood riserate	11.58	21.54	2.456	1.059	0.8604	0.569	0.2192	0.4054
Large flood fallrate	-4.003	-15.73	-3.398	-0.811	2.93	0.7613	0.1932	0.5005
EFC low flow threshold:								
EFC high flow threshold:		4						
EFC small flood minimum peak flow:		62.6						
EFC large flood minimum peak flow:		103.6						

Appendix H-14
Peak Flows

IHA Non-Parametric RVA Scorecard											
Middle and South Fork Ranch Ck Diversion (Node 2520)											
											Hydrologic
	Pre-impact period: Current Conditions				Post-impact period: Alt. 1a						Alteration
		Coeff. of				Coeff. of			RVA Boundaries		(Middle
	Medians	Dispersion	Minimum	Maximum	Medians	Dispersion	Minimum	Maximum	Low	High	Category)
Parameter Group #1											
October	0	0	0	2.4	0	0	0	0.7	0	0	0.02381
November	0	0	0	2.55	0	0	0	0	0	0	0.04651
December	0	0	0	2.9	0	0	0	0	0	0	0.04651
January	0	0	0	2.2	0	0	0	0	0	0	0.04651
February	0	0	0	1.7	0	0	0	0	0	0	0.04651
March	0	0	0	0	0	0	0	0	0	0	0
April	0	0	0	0	0	0	0	0	0	0	0
May	0	0	0	14.56	0	0	0	3.4	0	0	0.04762
June	0.76	61.41	0	81.75	0	0	0	81.75	0	39.66	0.2333
July	0	0	0	47.1	0	0	0	47.1	0	0	0.1515
August	0	0	0	13.2	0	0	0	13.2	0	0	0.07317
September	0	0	0	0.2	0	0	0	0.2	0	0	0
Parameter Group #2											
1-day minimum	0	0	0	0	0	0	0	0	0	0	0
3-day minimum	0	0	0	0	0	0	0	0	0	0	0
7-day minimum	0	0	0	0	0	0	0	0	0	0	0
30-day minimum	0	0	0	0	0	0	0	0	0	0	0
90-day minimum	0	0	0	0.4256	0	0	0	0	0	0	0.02273
1-day maximum	62.6	1.196	0	127.2	50.5	1.5	0	127.2	38.79	71.17	-0.1333
3-day maximum	53.63	1.368	0	125.8	38.87	1.808	0	125.8	22.27	68.03	-0.1333
7-day maximum	48.56	1.339	0	121.9	31.87	1.952	0	121.9	10.91	62.55	-0.06667
30-day maximum	27.62	1.821	0	91.86	9.085	3.968	0	91.86	3.431	47.86	0.3333
90-day maximum	10.01	2.006	0	49.62	3.033	4.51	0	43.27	1.98	18.46	0.3333
Number of zero days	332	0.1506	147	366	347	0.08501	278	366	316.5	349.5	0.3333
Base flow index	0	0	0	0	0	0	0	0	0	0	0
Parameter Group #3											
Date of minimum	275	0	275	299	275	0	275	299	275	275	0.02326
Date of maximum	173	0.07104	149	303	174	0.09699	154	303	168.2	180.3	-0.1333
Parameter Group #4											
Low pulse count	0	0	0	0	0	0	0	0	0	0	0
Low pulse duration											
High pulse count	3	1.333	0	11	3	1.5	0	11	2	6	-0.1333
High pulse duration	3	1.875	1	52.5	2	1.75	1	37.5	2	4.405	0.05263
The low pulse threshold is			0								
The high pulse threshold is			0								
Parameter Group #5											
Rise rate	2.45	1.373	0.09	60.18	1.74	5.368	0.09	63.12	1.039	3.273	-0.07143
Fall rate	-2.3	-0.8793	-60.18	-0.1	-2.25	-1.28	-63.12	-0.1	-2.916	-1.719	0
Number of reversals	13	1.308	0	91	7	2.071	0	37	9	21	-0.2105
Assessment of Hydrologic Alteration											
	Middle RVA Category			High RVA Category			Low RVA Category				
	Expected	Observed	Alter.	Expected	Observed	Alter.	Expected	Observed	Alter.		
Parameter Group #1											
October	42	43	0.02381	3	2	-0.3333					
November	43	45	0.04651	2	0	-1					
December	43	45	0.04651	2	0	-1					
January	43	45	0.04651	2	0	-1					
February	43	45	0.04651	2	0	-1					
March	45	45	0								
April	45	45	0								
May	42	44	0.04762	3	1	-0.6667					
June	30	37	0.2333	15	8	-0.4667					
July	33	38	0.1515	12	7	-0.4167					
August	41	44	0.07317	4	1	-0.75					
September	44	44	0	1	1	0					
Parameter Group #2											
1-day minimum	45	45	0	0	0		0	0			
3-day minimum	45	45	0	0	0		0	0			
7-day minimum	45	45	0	0	0		0	0			
30-day minimum	45	45	0	0	0		0	0			
90-day minimum	44	45	0.02273	1	0	-1	0	0			
1-day maximum	15	13	-0.1333	15	13	-0.1333	15	19	0.2667		
3-day maximum	15	13	-0.1333	15	12	-0.2	15	20	0.3333		
7-day maximum	15	14	-0.06667	15	11	-0.2667	15	20	0.3333		
30-day maximum	15	20	0.3333	15	5	-0.6667	15	20	0.3333		
90-day maximum	15	20	0.3333	15	4	-0.7333	15	21	0.4		
Number of zero days	15	20	0.3333	15	21	0.4	15	4	-0.7333		
Base flow index	45	45	0	0	0		0	0			
Parameter Group #3											
Date of minimum	43	44	0.02326	2	1	-0.5	0	0			
Date of maximum	15	13	-0.1333	15	18	0.2	15	14	-0.06667		
Parameter Group #4											
Low pulse count	45	45	0	0	0		0	0			
Low pulse duration	0	0		0	0		0	0			
High pulse count	30	26	-0.1333	9	8	-0.1111	6	11	0.8333		
High pulse duration	19	20	0.05263	14	11	-0.2143	9	10	0.1111		
Parameter Group #5											
Rise rate	14	13	-0.07143	14	13	-0.07143	14	15	0.07143		
Fall rate	14	14	0	14	13	-0.07143	14	14	0		
Number of reversals	19	15	-0.2105	13	7	-0.4615	13	23	0.7692		

Non-Parametric IHA Scorecard								
Middle and South Fork Ranch Ck Diversion (Node 2520)								
Pre-impact period: Current Conditions (1947-1991)				Post-impact period: Full Use (1947-1991)				
NormalizationFactor	1			1				
Mean annual flow	3.16			3.03				
Non-Normalized Mean Fl	3.16			3.03				
Annual C. V.	4.04			4.18				
Flow predictability	0.85			0.87				
Constancy/predictability	0.9			0.91				
% of floods in 60d period	0.5			0.5				
Flood-free season	24			24				
	MEDIANS		COEFF. of DISP.		DEVIATION FACTOR		SIGNIFICANCE COUNT	
	Pre	Post	Pre	Post	Medians	C.D.	Medians	C.D.
Parameter Group #1								
October	0	0	0	0				
November	0	0	0	0				
December	0	0	0	0				
January	0	0	0	0				
February	0	0	0	0				
March	0	0	0	0				
April	0	0	0	0				
May	0	0	0	0				
June	0.76	0	61.41	0	1	1	0.06006	0.03203
July	0	0	0	0				
August	0	0	0	0				
September	0	0	0	0				
Parameter Group #2								
1-day minimum	0	0	0	0				
3-day minimum	0	0	0	0				
7-day minimum	0	0	0	0				
30-day minimum	0	0	0	0				
90-day minimum	0	0	0	0				
1-day maximum	62.6	62.7	1.196	1.122	0.001597	0.06185	0.958	0.8609
3-day maximum	53.63	49.8	1.368	1.475	0.07147	0.07783	0.8338	0.8258
7-day maximum	48.56	48.56	1.339	1.362	0	0.01662	0.997	0.9179
30-day maximum	27.62	20.08	1.821	2.503	0.2731	0.3741	0.8048	0.6386
90-day maximum	10.01	7.409	2.006	2.803	0.2596	0.3975	0.8148	0.5596
Number of zero days	332	332	0.1506	0.1386	0	0.08	0.962	0.7257
Base flow index	0	0	0	0				
Parameter Group #3								
Date of minimum	275	275	0	0	0		0.00	
Date of maximum	173	173	0.07104	0.07514	0	0.05769	0.9239	0.954
Parameter Group #4								
Low pulse count	0	0	0	0				
Low pulse duration								
High pulse count	3	3	1.333	1.333	0	0	0.5886	0.6446
High pulse duration	3	2	1.875	2.25	0.3333	0.2	0.3544	0.8018
Low Pulse Threshold	0							
High Pulse Threshold	0							
Parameter Group #5								
Rise rate	2.45	2.475	1.373	1.551	0.0102	0.1289	0.9429	0.8348
Fall rate	-2.3	-2.125	-0.8793	-0.8735	0.07609	0.006617	0.6927	0.986
Number of reversals	13	13	1.308	1.269	0	0.02941	0.7558	0.9049
EFC Low flows								
October Low Flow	0	0	0	0				
November Low Flow	0	0	0	0				
December Low Flow	0	0	0	0				
January Low Flow	0	0	0	0				
February Low Flow	0	0	0	0				
March Low Flow	0	0	0	0				
April Low Flow	0	0	0	0				
May Low Flow	0	0	0	0				
June Low Flow	0	0	0	0				
July Low Flow	0	0	0	0				
August Low Flow	0	0	0	0				
September Low Flow	0	0	0	0				
EFC Parameters								
High flow peak	17	16.75	0.9468	0.8221	0.01471	0.1317	0.9249	0.5986
High flow duration	2	2	1.25	1.5	0	0.2	0.4795	0.6126
High flow timing	189	188	0.07172	0.07923	0.005464	0.1048	0.8659	0.6847
High flow frequency	1	1	3	3	0	0	0.1001	0.4294
High flow rise rate	13.9	13.75	1.388	0.8626	0.01115	0.3786	0.9129	0.2803
High flow fall rate	-6.5	-8.667	-1.271	-1.183	0.3333	0.06928	0.1211	0.8328
Small Flood peak	73.65	76.6	0.1911	0.1693	0.04005	0.1141	0.7888	0.7477
Small Flood duration	35.5	33.5	0.6972	0.7985	0.05634	0.1453	0.7397	0.8328
Small Flood timing	168.5	168	0.02527	0.02254	0.002732	0.1081	0.6627	0.8358
Small Flood freq.	0	0	0	0				
Small Flood riserate	11.26	10.04	1.414	1.457	0.1086	0.03069	0.8749	0.983
Small Flood fallrate	-3.606	-3.683	-0.9374	-3.879	0.0216	3.138	0.9449	0.2713
Large flood peak	125.4	125.4	0.08476	0.08476	0	0	0.9219	0.8809
Large flood duration	50	48.5	1.64	1.582	0.03	0.03508	0.955	0.9189
Large flood timing	173	173	0.0444	0.0444	0	0	0.8999	0.8549
Large flood freq.	0	0	0	0				
Large flood riserate	11.58	11.68	2.456	2.42	0.008963	0.01475	0.9199	0.8859
Large flood fallrate	-4.003	-4.065	-3.398	-3.317	0.01537	0.02371	0.9199	0.8899
EFC low flow threshold:								
EFC high flow threshold:		4						
EFC small flood minimum peak flow:		62.6						
EFC large flood minimum peak flow:		103.6						

Appendix H-14
Peak Flows

IHA Non-Parametric RVA Scorecard											
Middle and South Fork Ranch Ck Diversion (Node 2520)											
											Hydrologic
	Pre-impact period: Current Conditions				Post-impact period: Full Use				RVA Boundaries		Alteration
	Medians	Coeff. of Dispersion	Minimum	Maximum	Medians	Coeff. of Dispersion	Minimum	Maximum	Low	High	(Middle Category)
Parameter Group #1											
October	0	0	0	2.4	0	0	0	1.4	0	0	0
November	0	0	0	2.55	0	0	0	1.55	0	0	0.02326
December	0	0	0	2.9	0	0	0	2.4	0	0	0.02326
January	0	0	0	2.2	0	0	0	2.2	0	0	0.02326
February	0	0	0	1.7	0	0	0	1.7	0	0	0
March	0	0	0	0	0	0	0	0	0	0	0
April	0	0	0	0	0	0	0	0	0	0	0
May	0	0	0	14.56	0	0	0	21.3	0	0	0.02381
June	0.76	61.41	0	81.75	0	0	0	81.75	0	39.66	-0.03333
July	0	0	0	47.1	0	0	0	47.1	0	0	0.09091
August	0	0	0	13.2	0	0	0	13.2	0	0	0.02439
September	0	0	0	0.2	0	0	0	0.2	0	0	0
Parameter Group #2											
1-day minimum	0	0	0	0	0	0	0	0	0	0	0
3-day minimum	0	0	0	0	0	0	0	0	0	0	0
7-day minimum	0	0	0	0	0	0	0	0	0	0	0
30-day minimum	0	0	0	0	0	0	0	0	0	0	0
90-day minimum	0	0	0	0.4256	0	0	0	0.3311	0	0	0
1-day maximum	62.6	1.196	0	127.2	62.7	1.122	0	127.2	38.79	71.17	-0.1333
3-day maximum	53.63	1.368	0	125.8	49.8	1.475	0	125.8	22.27	68.03	-0.06667
7-day maximum	48.56	1.339	0	121.9	48.56	1.362	0	121.9	10.91	62.55	-0.06667
30-day maximum	27.62	1.821	0	91.86	20.08	2.503	0	91.86	3.431	47.86	0
90-day maximum	10.01	2.006	0	49.62	7.409	2.803	0	49.46	1.98	18.46	-0.1333
Number of zero days	332	0.1506	147	366	332	0.1386	171	366	316.5	349.5	0
Base flow index	0	0	0	0	0	0	0	0	0	0	0
Parameter Group #3											
Date of minimum	275	0	275	299	275	0	275	299	275	275	0.02326
Date of maximum	173	0.07104	149	303	173	0.07514	149	303	168.2	180.3	0.06667
Parameter Group #4											
Low pulse count	0	0	0	0	0	0	0	0	0	0	0
Low pulse duration											
High pulse count	3	1.333	0	11	3	1.333	0	11	2	6	0.03333
High pulse duration	3	1.875	1	52.5	2	2.25	1	49.5	2	4.405	-0.05263
The low pulse threshold is			0								
The high pulse threshold is			0								
Parameter Group #5											
Rise rate	2.45	1.373	0.09	60.18	2.475	1.551	0.09	44.86	1.039	3.273	0.07143
Fall rate	-2.3	-0.8793	-60.18	-0.1	-2.125	-0.8735	-44.86	-0.1	-2.916	-1.719	0.07143
Number of reversals	13	1.308	0	91	13	1.269	0	79	9	21	-0.05263

Assessment of Hydrologic Alteration									
	Middle RVA Category			High RVA Category			Low RVA Category		
	Expected	Observed	Alter.	Expected	Observed	Alter.	Expected	Observed	Alter.
Parameter Group #1									
October	42	42	0	3	3	0			
November	43	44	0.02326	2	1	-0.5			
December	43	44	0.02326	2	1	-0.5			
January	43	44	0.02326	2	1	-0.5			
February	43	43	0	2	2	0			
March	45	45	0						
April	45	45	0						
May	42	43	0.02381	3	2	-0.3333			
June	30	29	-0.03333	15	16	0.06667			
July	33	36	0.09091	12	9	-0.25			
August	41	42	0.02439	4	3	-0.25			
September	44	44	0	1	1	0			
Parameter Group #2									
1-day minimum	45	45	0	0	0		0	0	
3-day minimum	45	45	0	0	0		0	0	
7-day minimum	45	45	0	0	0		0	0	
30-day minimum	45	45	0	0	0		0	0	
90-day minimum	44	44	0	1	1	0	0	0	
1-day maximum	15	13	-0.1333	15	15	0	15	17	0.1333
3-day maximum	15	14	-0.06667	15	15	0	15	16	0.06667
7-day maximum	15	14	-0.06667	15	15	0	15	16	0.06667
30-day maximum	15	15	0	15	14	-0.06667	15	16	0.06667
90-day maximum	15	13	-0.1333	15	15	0	15	17	0.1333
Number of zero days	15	15	0	15	17	0.1333	15	13	-0.1333
Base flow index	45	45	0	0	0		0	0	
Parameter Group #3									
Date of minimum	43	44	0.02326	2	1	-0.5	0	0	
Date of maximum	15	16	0.06667	15	15	0	15	14	-0.06667
Parameter Group #4									
Low pulse count	45	45	0	0	0		0	0	
Low pulse duration	0	0		0	0		0	0	
High pulse count	30	31	0.03333	9	7	-0.2222	6	7	0.1667
High pulse duration	19	18	-0.05263	14	13	-0.07143	9	11	0.2222
Parameter Group #5									
Rise rate	14	15	0.07143	14	15	0.07143	14	12	-0.1429
Fall rate	14	15	0.07143	14	13	-0.07143	14	14	0
Number of reversals	19	18	-0.05263	13	11	-0.1538	13	16	0.2308

Non-Parametric IHA Scorecard								
Fraser River below St. Louis Creek (Node 2700)								
Pre-impact period: Current Conditions (1947-1991)				Post-impact period: Alt. 1a (1947-1991)				
NormalizationFactor	1			1				
Mean annual flow	52.3			33.6				
Non-Normalized Mean Fl	52.3			33.6				
Annual C. V.	2.23			2.53				
Flow predictability	0.56			0.47				
Constancy/predictability	0.61			0.46				
% of floods in 60d period	0.39			0.39				
Flood-free season	17			115				
	MEDIANS		COEFF. of DISP.		DEVIATION FACTOR		SIGNIFICANCE COUNT	
	Pre	Post	Pre	Post	Medians	C.D.	Medians	C.D.
Parameter Group #1								
October	10.86	4.19	0.7859	1.914	0.6142	1.435	0.00	0.001001
November	16.07	9	0.3794	0.5986	0.4398	0.5778	0.00	0.04705
December	13.37	6.3	0.4136	0.7183	0.5288	0.7365	0.00	0.04905
January	12.27	5.48	0.3941	0.7491	0.5534	0.901	0.00	0.006006
February	12.57	5.58	0.3627	0.6967	0.5559	0.9208	0.00	0.004004
March	13.53	6.79	0.3219	0.5913	0.4982	0.8371	0.00	0.01201
April	27.35	20.52	0.5117	0.6528	0.2498	0.2758	0.008008	0.2923
May	73.27	65.47	0.686	0.733	0.1065	0.06849	0.5495	0.7457
June	102.9	84.81	3.273	1.411	0.1759	0.569	0.3293	0.1371
July	30.23	17.38	2.148	1.855	0.4251	0.1361	0.02402	0.8268
August	26.98	19.15	0.3971	0.5449	0.2902	0.3721	0.00	0.2523
September	18.2	10.81	0.5533	0.9595	0.4062	0.7341	0.001001	0.02603
Parameter Group #2								
1-day minimum	5.46	0	0.631	0	1	1	0.08108	0.08308
3-day minimum	6.09	0.22	0.575	6.235	0.9639	9.843	0.05405	0.00
7-day minimum	6.893	0.7343	0.5	2.418	0.8935	3.837	0.03203	0.00
30-day minimum	9.718	3.499	0.6414	1.629	0.64	1.539	0.002002	0.001001
90-day minimum	11.83	5.111	0.4132	0.8762	0.568	1.12	0.00	0.009009
1-day maximum	527.5	376.7	1.214	1.525	0.286	0.2563	0.4194	0.4114
3-day maximum	470.7	289.9	1.292	1.855	0.384	0.436	0.3834	0.3033
7-day maximum	418.1	197.3	1.323	2.355	0.5281	0.7805	0.2883	0.1612
30-day maximum	238.4	126.6	1.606	1.744	0.4691	0.08571	0.2262	0.8438
90-day maximum	123.9	70.12	1.426	1.633	0.4339	0.1449	0.2052	0.6837
Number of zero days	0	1	0	9.5				
Base flow index	0.1683	0.03102	1	2.832	0.8156	1.83	0.006006	0.00
Parameter Group #3								
Date of minimum	272	268	0.03689	0.03825	0.02186	0.03704	0.1662	0.9279
Date of maximum	168	166	0.05874	0.07514	0.01093	0.2791	0.7297	0.2763
Parameter Group #4								
Low pulse count	5	7	1.2	0.7143	0.4	0.4048	0.01401	0.09109
Low pulse duration	5.5	4.5	3.705	1.111	0.1818	0.7001	0.5265	0.1331
High pulse count	6	5	0.8333	0.7	0.1667	0.16	0.4084	0.5556
High pulse duration	3	4	2.167	1.625	0.3333	0.25	0.1381	0.4785
Low Pulse Threshold	14.39							
High Pulse Threshold	27.48							
Parameter Group #5								
Rise rate	0.84	0.79	0.4613	0.5411	0.05952	0.173	0.4775	0.4054
Fall rate	-0.82	-0.74	-0.3567	-0.3919	0.09756	0.09864	0.07207	0.7858
Number of reversals	167	160	0.08683	0.09688	0.04192	0.1157	0.01101	0.6867
EFC Low flows								
October Low Flow	10.84	4.19	0.7236	1.914	0.6133	1.645	0.00	0.00
November Low Flow	16.07	9	0.3785	0.5986	0.4398	0.5817	0.00	0.05806
December Low Flow	13.37	6.3	0.4136	0.7183	0.5288	0.7365	0.00	0.04905
January Low Flow	12.2	5.48	0.3475	0.7491	0.5508	1.155	0.00	0.003003
February Low Flow	12.52	5.58	0.3593	0.6967	0.5542	0.939	0.00	0.003003
March Low Flow	12.98	6.79	0.3297	0.5924	0.4769	0.7966	0.00	0.02002
April Low Flow	20.67	14.9	0.3902	0.481	0.2791	0.2329	0.002002	0.3013
May Low Flow	23.76	19.35	0.3943	0.6233	0.1856	0.5806	0.2202	0.08809
June Low Flow	24.07	17.44	0.5161	0.5361	0.2752	0.03878	0.1181	0.9099
July Low Flow	22.47	13.34	0.4671	0.8681	0.4064	0.8587	0.006006	0.003003
August Low Flow	24.41	16.84	0.225	0.4325	0.3101	0.9219	0.00	0.007007
September Low Flow	15.06	8.575	0.5163	0.784	0.4306	0.5185	0.001001	0.02302
EFC Parameters								
High flow peak	36.47	36.72	0.2225	0.4672	0.006855	1.1	0.9139	0.004004
High flow duration	5	4.5	0.75	0.6667	0.1	0.1111	0.6146	0.7367
High flow timing	201	157.5	0.2117	0.1831	0.2377	0.1355	0.005005	0.5275
High flow frequency	6	6	0.75	0.8333	0	0.1111	0.4865	0.6977
High flow rise rate	5.458	6.335	0.5375	0.5254	0.1606	0.0224	0.07307	0.964
High flow fall rate	-3.504	-4.745	-0.5786	-0.512	0.3542	0.1151	0.00	0.6807
Small Flood peak	722	666.3	0.1675	0.1894	0.07712	0.131	0.4535	0.7207
Small Flood duration	90	86	0.5444	0.3605	0.04444	0.3379	0.7608	0.4825
Small Flood timing	170	170	0.02732	0.04645	0	0.7	0.9089	0.1191
Small Flood freq.	0	0	0	0				
Small Flood riserate	13.58	11.12	0.5304	0.4651	0.1811	0.1231	0.2563	0.7718
Small Flood fallrate	-19.72	-26.05	-1.128	-0.6207	0.3207	0.4498	0.1552	0.3113
Large flood peak	1204	1174	0.1406	0.2433	0.02481	0.731	0.8589	0.2272
Large flood duration	132.5	92	0.4887	0.4565	0.3057	0.0658	0.3504	0.7177
Large flood timing	171	166.5	0.08402	0.07377	0.02459	0.122	0.8138	0.6997
Large flood freq.	0	0	0	0				
Large flood riserate	21.46	32.88	1.786	0.579	0.5321	0.6758	0.3123	0.4304
Large flood fallrate	-18.21	-21.63	-0.2919	-0.03534	0.1876	0.8789	0.1522	0.3984
EFC low flow threshold:		18.96						
EFC high flow threshold:		34.94						
EFC small flood minimum peak flow:		527.5						
EFC large flood minimum peak flow:		1005						

IHA Non-Parametric RVA Scorecard
Fraser River below St. Louis Creek (Node 2700)

	Pre-impact period: Current Conditions				Post-impact period: Alt. 1a						Hydrologic Alteration
		Coeff. of				Coeff. of			RVA Boundaries		(Middle
	Medians	Dispersion	Minimum	Maximum	Medians	Dispersion	Minimum	Maximum	Low	High	Category)
Parameter Group #1											
October	10.86	0.7859	3.79	50.98	4.19	1.914	0	44.01	9.039	15.6	-0.06667
November	16.07	0.3794	8.79	47.25	9	0.5986	4.62	22.76	13.9	18.4	-0.7333
December	13.37	0.4136	9.03	36.43	6.3	0.7183	3.71	24.09	12.25	16.71	-0.8
January	12.27	0.3941	8.63	29.76	5.48	0.7491	2.89	11.87	11.81	14.59	-0.9333
February	12.57	0.3627	8.675	26.14	5.58	0.6967	2.78	10.61	11.83	15.36	-1
March	13.53	0.3219	7.72	21.93	6.79	0.5913	2.94	16.12	12.51	15.63	-0.9333
April	27.35	0.5117	13.3	119.9	20.52	0.6528	7.43	110.8	24.71	35.71	-0.2
May	73.27	0.686	28.13	283.2	65.47	0.733	20.31	241.7	55.37	92.11	0.1333
June	102.9	3.273	18.25	830.2	84.81	1.411	9.245	818.6	64.81	321	0.6
July	30.23	2.148	13.59	557.8	17.38	1.855	1.4	515.8	24.54	51.71	-0.3333
August	26.98	0.3971	18.9	161.7	19.15	0.5449	6.19	128.6	23.86	29.72	-0.6667
September	18.2	0.5533	9.12	36.14	10.81	0.9595	0.735	28.96	15.24	22.14	-0.3333
Parameter Group #2											
1-day minimum	5.46	0.631	1.75	15.34	0	0	0	7.73	4.624	6.965	-0.8667
3-day minimum	6.09	0.575	2.373	15.52	0.22	6.235	0	8.093	5.275	7.369	-0.8667
7-day minimum	6.893	0.5	2.613	15.79	0.7343	2.418	0	8.804	6.025	7.981	-0.8667
30-day minimum	9.718	0.6414	3.703	17.19	3.499	1.629	0	9.441	9.071	12.18	-0.8667
90-day minimum	11.83	0.4132	7.713	21.93	5.111	0.8762	3.361	10.67	11.03	15.3	-1
1-day maximum	527.5	1.214	57.63	1340	376.7	1.525	45.41	1317	220.4	711	0.06667
3-day maximum	470.7	1.292	49.58	1266	289.9	1.855	40.59	1245	177.5	641.5	0.06667
7-day maximum	418.1	1.323	44.42	1185	197.3	2.355	36.62	1166	155.3	588.7	0.1333
30-day maximum	238.4	1.606	39.67	943	126.6	1.744	30.28	920.3	109.2	393.3	0.3333
90-day maximum	123.9	1.426	27.68	532.9	70.12	1.633	19.07	458.9	72.8	200.5	0.2667
Number of zero days	0	0	0	0	1	9.5	0	30	0	0	-0.6222
Base flow index	0.1683	1	0.0243	0.5396	0.03102	2.832	0	0.2745	0.1277	0.2305	-0.8
Parameter Group #3											
Date of minimum	272	0.03689	88	305	268	0.03825	34	344	267.2	275.8	-0.06667
Date of maximum	168	0.05874	108	207	166	0.07514	98	273	162	173.6	-0.25
Parameter Group #4											
Low pulse count	5	1.2	0	14	7	0.7143	1	20	4	6.82	-0.2941
Low pulse duration	5.5	3.705	1	206	4.5	1.111	1	204	3	14.43	1.2
High pulse count	6	0.8333	1	18	5	0.7	1	10	5	8	0.3
High pulse duration	3	2.167	1	162	4	1.625	1	158	2.5	6.91	0.125
The low pulse threshold is			14.39								
The high pulse threshold is			27.48								
Parameter Group #5											
Rise rate	0.84	0.4613	0.36	1.63	0.79	0.5411	0.31	1.65	0.7209	0.9846	-0.1333
Fall rate	-0.82	-0.3567	-1.57	-0.44	-0.74	-0.3919	-1.685	-0.29	-0.9	-0.7418	-0.1875
Number of reversals	167	0.08683	136	186	160	0.09688	143	185	159.2	168	0.25

Assessment of Hydrologic Alteration

	Middle RVA Category			High RVA Category			Low RVA Category				
	Expected	Observed	Alter.	Expected	Observed	Alter.	Expected	Observed	Alter.		
Parameter Group #1											
October	15	14	-0.06667	15	1	-0.9333	15	30	1		
November	15	4	-0.7333	15	2	-0.8667	15	39	1.6		
December	15	3	-0.8	15	1	-0.9333	15	41	1.733		
January	15	1	-0.9333	15	0	-1	15	44	1.933		
February	15	0	-1	15	0	-1	15	45	2		
March	15	1	-0.9333	15	1	-0.9333	15	43	1.867		
April	15	12	-0.2	15	6	-0.6	15	27	0.8		
May	15	17	0.1333	15	9	-0.4	15	19	0.2667		
June	15	24	0.6	15	4	-0.7333	15	17	0.1333		
July	15	10	-0.3333	15	8	-0.4667	15	27	0.8		
August	15	5	-0.6667	15	8	-0.4667	15	32	1.133		
September	15	10	-0.3333	15	4	-0.7333	15	31	1.067		
Parameter Group #2											
1-day minimum	15	2	-0.8667	15	2	-0.8667	15	41	1.733		
3-day minimum	15	2	-0.8667	15	2	-0.8667	15	41	1.733		
7-day minimum	15	2	-0.8667	15	2	-0.8667	15	41	1.733		
30-day minimum	15	2	-0.8667	15	0	-1	15	43	1.867		
90-day minimum	15	0	-1	15	0	-1	15	45	2		
1-day maximum	15	16	0.06667	15	8	-0.4667	15	21	0.4		
3-day maximum	15	16	0.06667	15	9	-0.4	15	20	0.3333		
7-day maximum	15	17	0.1333	15	8	-0.4667	15	20	0.3333		
30-day maximum	15	20	0.3333	15	4	-0.7333	15	21	0.4		
90-day maximum	15	19	0.2667	15	3	-0.8	15	23	0.5333		
Number of zero days	45	17	-0.6222	0	28		0	0			
Base flow index	15	3	-0.8	15	2	-0.8667	15	40	1.667		
Parameter Group #3											
Date of minimum	15	14	-0.06667	15	11	-0.2667	15	20	0.3333		
Date of maximum	16	12	-0.25	15	17	0.1333	14	16	0.1429		
Parameter Group #4											
Low pulse count	17	12	-0.2941	15	26	0.7333	13	7	-0.4615		
Low pulse duration	15	33	1.2	14	3	-0.7857	13	9	-0.3077		
High pulse count	20	26	0.3	12	4	-0.6667	13	15	0.1538		
High pulse duration	16	18	0.125	15	15	0	14	12	-0.1429		
Parameter Group #5											
Rise rate	15	13	-0.1333	15	12	-0.2	15	20	0.3333		
Fall rate	16	13	-0.1875	15	23	0.5333	14	9	-0.3571		
Number of reversals	16	20	0.25	14	4	-0.7143	15	21	0.4		

Non-Parametric IHA Scorecard								
Fraser River below St. Louis Ck (Node 2700)								
Pre-impact period: Current Conditions (1947-1991)				Post-impact period: Full Use (1947-1991)				
NormalizationFactor	1			1				
Mean annual flow	52.3			42.65				
Non-Normalized Mean Flo	52.3			42.65				
Annual C. V.	2.23			2.63				
Flow predictability	0.56			0.46				
Constancy/predictability	0.61			0.45				
% of floods in 60d period	0.39			0.39				
Flood-free season	17			83				
	MEDIANS		COEFF. of DISP.		DEVIATION FACTOR		SIGNIFICANCE COUNT	
	Pre	Post	Pre	Post	Medians	C.D.	Medians	C.D.
Parameter Group #1								
October	10.86	4.19	0.7859	1.914	0.6142	1.435	0.00	0.00
November	16.07	9	0.3794	0.5986	0.4398	0.5778	0.00	0.03003
December	13.37	6.3	0.4136	0.7317	0.5288	0.7692	0.00	0.03003
January	12.27	5.48	0.3941	0.7719	0.5534	0.9589	0.00	0.00
February	12.57	5.58	0.3627	0.7272	0.5559	1.005	0.00	0.004004
March	13.53	6.76	0.3219	0.6272	0.5004	0.9486	0.00	0.005005
April	27.35	20.52	0.5117	0.6528	0.2498	0.2758	0.005005	0.2553
May	73.27	66.59	0.686	0.7877	0.09117	0.1483	0.7247	0.5365
June	102.9	93.76	3.273	3.515	0.08896	0.07376	0.8188	0.8659
July	30.23	17.38	2.148	2.051	0.4251	0.0452	0.03904	0.954
August	26.98	19.15	0.3971	0.5971	0.2902	0.5035	0.00	0.1512
September	18.2	10.81	0.5533	0.9595	0.4062	0.7341	0.001001	0.02202
Parameter Group #2								
1-day minimum	5.46	0	0.631	0	1	1	0.08809	0.08909
3-day minimum	6.09	0.22	0.575	6.235	0.9639	9.843	0.06006	0.00
7-day minimum	6.893	0.7343	0.5	2.418	0.8935	3.837	0.03303	0.00
30-day minimum	9.718	3.498	0.6414	1.658	0.64	1.585	0.002002	0.002002
90-day minimum	11.83	5.111	0.4132	0.8777	0.568	1.124	0.00	0.01101
1-day maximum	527.5	479.9	1.214	1.298	0.09033	0.06947	0.8348	0.8839
3-day maximum	470.7	408.6	1.292	1.441	0.1319	0.1159	0.7287	0.7548
7-day maximum	418.1	351.9	1.323	1.511	0.1584	0.1428	0.6837	0.6877
30-day maximum	238.4	210.2	1.606	1.812	0.1182	0.1282	0.7067	0.6887
90-day maximum	123.9	122.2	1.426	1.339	0.01318	0.06101	0.983	0.8619
Number of zero days	0	1	0	9.5				
Base flow index	0.1683	0.02902	1	2.574	0.8275	1.573	0.01502	0.007007
Parameter Group #3								
Date of minimum	272	268	0.03689	0.03825	0.02186	0.03704	0.1552	0.9349
Date of maximum	168	167	0.05874	0.06284	0.005464	0.06977	0.7578	0.7928
Parameter Group #4								
Low pulse count	5	7	1.2	0.7143	0.4	0.4048	0.01502	0.1131
Low pulse duration	5.5	5	3.705	0.95	0.09091	0.7436	0.7177	0.1181
High pulse count	6	5	0.8333	0.7	0.1667	0.16	0.2122	0.4715
High pulse duration	3	4	2.167	1.688	0.3333	0.2212	0.1922	0.5315
Low Pulse Threshold	14.39							
High Pulse Threshold	27.48							
Parameter Group #5								
Rise rate	0.84	0.79	0.4613	0.5633	0.05952	0.2211	0.5676	0.2392
Fall rate	-0.82	-0.75	-0.3567	-0.41	0.08537	0.1494	0.1371	0.6056
Number of reversals	167	161	0.08683	0.08696	0.03593	0.001499	0.009009	0.994
EFC Low flows								
October Low Flow	10.84	4.19	0.7236	1.914	0.6133	1.645	0.00	0.00
November Low Flow	16.07	9	0.3785	0.5986	0.4398	0.5817	0.00	0.03103
December Low Flow	13.37	6.3	0.4136	0.7183	0.5288	0.7365	0.00	0.03704
January Low Flow	12.2	5.48	0.3475	0.7235	0.5508	1.082	0.00	0.00
February Low Flow	12.52	5.58	0.3593	0.7272	0.5542	1.024	0.00	0.004004
March Low Flow	12.98	6.76	0.3297	0.6106	0.4792	0.8517	0.00	0.01902
April Low Flow	20.67	14.9	0.3902	0.481	0.2791	0.2329	0.00	0.3143
May Low Flow	23.76	19	0.3943	0.6559	0.2003	0.6635	0.1822	0.05706
June Low Flow	24.07	17.78	0.5161	0.654	0.2614	0.2672	0.1141	0.5506
July Low Flow	22.47	13.4	0.4671	0.6911	0.4035	0.4797	0.005005	0.05506
August Low Flow	24.41	16.82	0.225	0.4416	0.3108	0.9626	0.00	0.004004
September Low Flow	15.06	8.575	0.5163	0.7615	0.4306	0.475	0.004004	0.04505
EFC Parameters								
High flow peak	36.47	37.09	0.2225	0.467	0.017	1.099	0.7688	0.005005
High flow duration	5	4.5	0.75	0.6667	0.1	0.1111	0.6016	0.7818
High flow timing	201	160.5	0.2117	0.209	0.2213	0.0129	0.01301	0.9499
High flow frequency	6	6	0.75	0.6667	0	0.1111	0.6166	0.6847
High flow rise rate	5.458	6.23	0.5375	0.4848	0.1414	0.09811	0.09309	0.8238
High flow fall rate	-3.504	-4.745	-0.5786	-0.695	0.3542	0.2011	0.00	0.4635
Small Flood peak	722	721.3	0.1675	0.181	0.0009972	0.08047	0.974	0.8098
Small Flood duration	90	74	0.5444	0.5068	0.1778	0.06922	0.1161	0.9179
Small Flood timing	170	169	0.02732	0.02732	0.005464	0	0.4895	0.983
Small Flood freq.	0	0	0	0				
Small Flood riserate	13.58	14.13	0.5304	0.541	0.04053	0.0199	0.6617	0.9429
Small Flood fallrate	-19.72	-27.51	-1.128	-0.8773	0.3947	0.2223	0.1962	0.5075
Large flood peak	1204	1219	0.1406	0.1251	0.01247	0.1098	0.6727	0.8208
Large flood duration	132.5	105.5	0.4887	0.3673	0.2038	0.2484	0.2943	0.6907
Large flood timing	171	171	0.08402	0.08402	0	0	0.9139	0.8579
Large flood freq.	0	0	0	0				
Large flood riserate	21.46	21.42	1.786	1.664	0.001902	0.06818	0.977	0.9409
Large flood fallrate	-18.21	-22.54	-0.2919	-0.3833	0.2377	0.3129	0.09309	0.5936
EFC low flow threshold:		18.96						
EFC high flow threshold:		34.94						
EFC small flood minimum peak flow:		527.5						
EFC large flood minimum peak flow:		1005						

IHA Non-Parametric RVA Scorecard
Fraser River below St. Louis Ck (Node 2700)

	Pre-impact period: Current Conditions				Post-impact period: Full Use				RVA Boundaries		Hydrologic Alteration (Middle
	Medians	Coeff. of Dispersion	Minimum	Maximum	Medians	Coeff. of Dispersion	Minimum	Maximum	Low	High	Category)
Parameter Group #1											
October	10.86	0.7859	3.79	50.98	4.19	1.914	0	44.01	9.039	15.6	-0.1333
November	16.07	0.3794	8.79	47.25	9	0.5986	4.62	27.67	13.9	18.4	-0.8
December	13.37	0.4136	9.03	36.43	6.3	0.7317	3.71	26.98	12.25	16.71	-0.8
January	12.27	0.3941	8.63	29.76	5.48	0.7719	2.89	21.32	11.81	14.59	-0.9333
February	12.57	0.3627	8.675	26.14	5.58	0.7272	2.78	17.58	11.83	15.36	-1
March	13.53	0.3219	7.72	21.93	6.76	0.6272	2.94	16.12	12.51	15.63	-0.8
April	27.35	0.5117	13.3	119.9	20.52	0.6528	7.43	110.8	24.71	35.71	-0.2
May	73.27	0.686	28.13	283.2	66.59	0.7877	20.31	251.6	55.37	92.11	0.06667
June	102.9	3.273	18.25	830.2	93.76	3.515	9.245	821.7	64.81	321	-0.06667
July	30.23	2.148	13.59	557.8	17.38	2.051	1.4	521.8	24.54	51.71	-0.4
August	26.98	0.3971	18.9	161.7	19.15	0.5971	6.19	134.4	23.86	29.72	-0.8
September	18.2	0.5533	9.12	36.14	10.81	0.9595	0.735	28.96	15.24	22.14	-0.3333
Parameter Group #2											
1-day minimum	5.46	0.631	1.75	15.34	0	0	0	7.73	4.624	6.965	-0.8667
3-day minimum	6.09	0.575	2.373	15.52	0.22	6.235	0	8.093	5.275	7.369	-0.8667
7-day minimum	6.893	0.5	2.613	15.79	0.7343	2.418	0	8.804	6.025	7.981	-0.8667
30-day minimum	9.718	0.6414	3.703	17.19	3.498	1.658	0	9.441	9.071	12.18	-0.8667
90-day minimum	11.83	0.4132	7.713	21.93	5.111	0.8777	3.361	12.26	11.03	15.3	-0.9333
1-day maximum	527.5	1.214	57.63	1340	479.9	1.298	45.41	1324	220.4	711	-0.06667
3-day maximum	470.7	1.292	49.58	1266	408.6	1.441	40.59	1251	177.5	641.5	0.06667
7-day maximum	418.1	1.323	44.42	1185	351.9	1.511	36.62	1170	155.3	588.7	0.06667
30-day maximum	238.4	1.606	39.67	943	210.2	1.812	30.28	926.1	109.2	393.3	0.1333
90-day maximum	123.9	1.426	27.68	532.9	122.2	1.339	19.07	502.5	72.8	200.5	0
Number of zero days	0	0	0	0	1	9.5	0	30	0	0	-0.6222
Base flow index	0.1683	1	0.0243	0.5396	0.02902	2.574	0	0.2745	0.1277	0.2305	-0.8667
Parameter Group #3											
Date of minimum	272	0.03689	88	305	268	0.03825	34	344	267.2	275.8	-0.06667
Date of maximum	168	0.05874	108	207	167	0.06284	98	207	162	173.6	0
Parameter Group #4											
Low pulse count	5	1.2	0	14	7	0.7143	1	24	4	6.82	-0.2941
Low pulse duration	5.5	3.705	1	206	5	0.95	1	204	3	14.43	1.2
High pulse count	6	0.8333	1	18	5	0.7	1	10	5	8	0.15
High pulse duration	3	2.167	1	162	4	1.688	1	158	2.5	6.91	0.1875
The low pulse threshold is			14.39								
The high pulse threshold is			27.48								
Parameter Group #5											
Rise rate	0.84	0.4613	0.36	1.63	0.79	0.5633	0.31	1.65	0.7209	0.9846	-0.06667
Fall rate	-0.82	-0.3567	-1.57	-0.44	-0.75	-0.41	-1.71	-0.29	-0.9	-0.7418	-0.25
Number of reversals	167	0.08683	136	186	161	0.08696	135	185	159.2	168	0.3125

Assessment of Hydrologic Alteration

	Middle RVA Category			High RVA Category			Low RVA Category		
	Expected	Observed	Alter.	Expected	Observed	Alter.	Expected	Observed	Alter.
Parameter Group #1									
October	15	13	-0.1333	15	2	-0.8667	15	30	1
November	15	3	-0.8	15	3	-0.8	15	39	1.6
December	15	3	-0.8	15	2	-0.8667	15	40	1.667
January	15	1	-0.9333	15	1	-0.9333	15	43	1.867
February	15	0	-1	15	2	-0.8667	15	43	1.867
March	15	3	-0.8	15	1	-0.9333	15	41	1.733
April	15	12	-0.2	15	6	-0.6	15	27	0.8
May	15	16	0.06667	15	11	-0.2667	15	18	0.2
June	15	14	-0.06667	15	14	-0.06667	15	17	0.1333
July	15	9	-0.4	15	10	-0.3333	15	26	0.7333
August	15	3	-0.8	15	10	-0.3333	15	32	1.133
September	15	10	-0.3333	15	4	-0.7333	15	31	1.067
Parameter Group #2									
1-day minimum	15	2	-0.8667	15	2	-0.8667	15	41	1.733
3-day minimum	15	2	-0.8667	15	2	-0.8667	15	41	1.733
7-day minimum	15	2	-0.8667	15	2	-0.8667	15	41	1.733
30-day minimum	15	2	-0.8667	15	0	-1	15	43	1.867
90-day minimum	15	1	-0.9333	15	0	-1	15	44	1.933
1-day maximum	15	14	-0.06667	15	13	-0.1333	15	18	0.2
3-day maximum	15	16	0.06667	15	12	-0.2	15	17	0.1333
7-day maximum	15	16	0.06667	15	12	-0.2	15	17	0.1333
30-day maximum	15	17	0.1333	15	12	-0.2	15	16	0.06667
90-day maximum	15	15	0	15	11	-0.2667	15	19	0.2667
Number of zero days	45	17	-0.6222	0	28		0	0	
Base flow index	15	2	-0.8667	15	2	-0.8667	15	41	1.733
Parameter Group #3									
Date of minimum	15	14	-0.06667	15	11	-0.2667	15	20	0.3333
Date of maximum	16	16	0	15	12	-0.2	14	17	0.2143
Parameter Group #4									
Low pulse count	17	12	-0.2941	15	26	0.7333	13	7	-0.4615
Low pulse duration	15	33	1.2	14	3	-0.7857	13	9	-0.3077
High pulse count	20	23	0.15	12	5	-0.5833	13	17	0.3077
High pulse duration	16	19	0.1875	15	15	0	14	11	-0.2143
Parameter Group #5									
Rise rate	15	14	-0.06667	15	13	-0.1333	15	18	0.2
Fall rate	16	12	-0.25	15	22	0.4667	14	11	-0.2143
Number of reversals	16	21	0.3125	14	5	-0.6429	15	19	0.2667

Non-Parametric IHA Scorecard								
Fraser River below Crooked Creek (Node 2810)								
Pre-impact period: Current Conditions (1947-1991)				Post-impact period: Alt. 1a (1947-1991)				
NormalizationFactor	1			1				
Mean annual flow	117.5			102.2				
Non-Normalized Mean Fl	117.5			102.2				
Annual C. V.	1.8			1.7				
Flow predictability	0.6			0.61				
Constancy/predictability	0.61			0.63				
% of floods in 60d period	0.39			0.39				
Flood-free season	59			65				
	MEDIANS		COEFF. of DISP.		DEVIATION FACTOR		SIGNIFICANCE COUNT	
	Pre	Post	Pre	Post	Medians	C.D.	Medians	C.D.
Parameter Group #1								
October	31.53	31.44	0.6226	0.6401	0.002854	0.02815	0.985	0.9109
November	34.45	34.62	0.2574	0.2551	0.004935	0.00884	0.9139	0.986
December	28.95	28.58	0.3254	0.3462	0.01278	0.06402	0.8498	0.9179
January	26.7	26.37	0.3489	0.3354	0.01236	0.03857	0.8228	0.8779
February	27.81	27.31	0.3434	0.283	0.01798	0.176	0.6887	0.6847
March	33.63	32.82	0.2533	0.2561	0.02409	0.01085	0.7007	0.962
April	101.9	101.2	0.5262	0.5302	0.007067	0.007493	0.7898	0.965
May	221.6	219.5	0.9202	0.7508	0.009479	0.1841	0.99	0.5686
June	374.6	307.5	1.38	0.9509	0.1792	0.3108	0.4224	0.2372
July	73.33	69.76	1.851	0.8133	0.04868	0.5607	0.7598	0.4254
August	50.31	46.17	0.3591	0.4007	0.08229	0.1159	0.2352	0.5255
September	41.01	40.03	0.3687	0.3991	0.0239	0.08258	0.4454	0.8068
Parameter Group #2								
1-day minimum	19.06	19.16	0.2513	0.2046	0.005247	0.1859	0.6857	0.4935
3-day minimum	20.07	20.04	0.235	0.1912	0.001661	0.1863	0.8388	0.4655
7-day minimum	20.74	20.65	0.2107	0.1901	0.004546	0.09804	0.8418	0.6777
30-day minimum	24.04	23.87	0.2719	0.2686	0.006851	0.01223	0.8128	0.958
90-day minimum	26.59	26.8	0.3118	0.3321	0.007796	0.06498	0.9079	0.8599
1-day maximum	855.5	658.8	0.9571	1.221	0.23	0.2755	0.4464	0.3954
3-day maximum	833.8	594.7	0.9475	1.246	0.2867	0.3152	0.2262	0.2462
7-day maximum	719	507.9	1.016	1.245	0.2935	0.2257	0.2462	0.4424
30-day maximum	468.6	370.2	1.161	0.9633	0.2101	0.1703	0.2843	0.4735
90-day maximum	284.3	259.6	1.096	0.8686	0.08699	0.2076	0.5956	0.3544
Number of zero days	0	0	0	0				
Base flow index	0.2083	0.2392	0.8052	0.7196	0.148	0.1063	0.1572	0.6507
Parameter Group #3								
Date of minimum	271	267	0.3689	0.3429	0.02186	0.07037	0.8559	0.8769
Date of maximum	163	161	0.06148	0.06284	0.01093	0.02222	0.5275	0.8959
Parameter Group #4								
Low pulse count	8	8	0.6875	0.6875	0	0	0.6296	0.981
Low pulse duration	3	3	1.125	0.9583	0	0.1481	0.7558	0.4875
High pulse count	6	6	0.8333	0.6667	0	0.2	0.6056	0.4164
High pulse duration	3	3	2.167	1.833	0	0.1538	0.4214	0.7247
Low Pulse Threshold	33.14							
High Pulse Threshold	62.36							
Parameter Group #5								
Rise rate	2.36	2.27	0.429	0.3877	0.03813	0.09641	0.6366	0.7157
Fall rate	-2.32	-2.165	-0.4817	-0.455	0.06681	0.05546	0.4825	0.8238
Number of reversals	164	168	0.07927	0.07738	0.02439	0.02381	0.07508	0.9349
EFC Low flows								
October Low Flow	30.88	30.53	0.578	0.5798	0.01133	0.002964	0.9209	0.981
November Low Flow	34.11	34.22	0.224	0.2309	0.003225	0.03071	0.9249	0.9469
December Low Flow	28.95	28.58	0.3254	0.3462	0.01278	0.06402	0.8539	0.9189
January Low Flow	26.7	26.37	0.3463	0.3301	0.01236	0.04663	0.8228	0.8559
February Low Flow	27.81	27.31	0.3434	0.282	0.01798	0.1787	0.6887	0.6867
March Low Flow	32.91	32.19	0.2489	0.2523	0.02188	0.01363	0.6707	0.9449
April Low Flow	50.7	50.76	0.4468	0.498	0.001183	0.1145	0.978	0.5816
May Low Flow	83.57	81.52	0.2035	0.2114	0.02447	0.0391	0.4294	0.967
June Low Flow	60.08	60.4	0.4046	0.6175	0.005201	0.526	0.984	0.1572
July Low Flow	56.87	52.11	0.3309	0.3618	0.08375	0.09336	0.1662	0.7958
August Low Flow	48.57	45.81	0.3522	0.382	0.05673	0.08447	0.3954	0.6987
September Low Flow	37.67	36.04	0.3729	0.4163	0.0434	0.1164	0.4404	0.7928
EFC Parameters								
High flow peak	89.2	97.31	0.4131	0.3887	0.09092	0.05915	0.2092	0.7608
High flow duration	5	5	0.7	0.85	0	0.2143	0.2432	0.7948
High flow timing	203	194	0.2193	0.2036	0.04918	0.07165	0.6637	0.8278
High flow frequency	5	6	1.1	0.6667	0.2	0.3939	0.2352	0.2132
High flow rise rate	14.63	15.53	0.4053	0.4415	0.06188	0.08943	0.3333	0.7988
High flow fall rate	-9.697	-10.44	-0.5664	-0.4344	0.077	0.233	0.3814	0.3914
Small Flood peak	1156	1114	0.2116	0.1757	0.03641	0.1697	0.6466	0.7758
Small Flood duration	96	97	0.2813	0.2474	0.01042	0.1203	0.7227	0.6817
Small Flood timing	169	170	0.03005	0.02459	0.005464	0.1818	0.5836	0.7337
Small Flood freq.	0	0	0	0				
Small Flood riserate	17.37	16.53	0.4544	0.3651	0.04799	0.1966	0.3473	0.6627
Small Flood fallrate	-36.41	-39.37	-0.387	-0.2933	0.08132	0.242	0.7788	0.6426
Large flood peak	2236	1844	0.1458	0.317	0.1754	1.174	0.2192	0.0981
Large flood duration	121.5	101	0.3704	0.3564	0.1687	0.03762	0.6146	0.7708
Large flood timing	171.5	160	0.08333	0.07377	0.06284	0.1148	0.5275	0.7057
Large flood freq.	0	0	0	0				
Large flood riserate	32.51	32.28	1.535	0.8616	0.007147	0.4387	0.7447	0.8098
Large flood fallrate	-31.45	-38.18	-0.8943	-0.6244	0.2143	0.3018	0.4905	0.7748
EFC low flow threshold:		42.78						
EFC high flow threshold:		90.96						
EFC small flood minimum peak flow:		855.5						
EFC large flood minimum peak flow:		1667						

IHA Non-Parametric RVA Scorecard											
Fraser River below Crooked Creek (Node 2810)											
											Hydrologic
	Pre-impact period: Current Conditions				Post-impact period: Alt. 1a				RVA Boundaries		Alteration
	Medians	Coeff. of Dispersion	Minimum	Maximum	Medians	Coeff. of Dispersion	Minimum	Maximum	Low	High	(Middle Category)
Parameter Group #1											
October	31.53	0.6226	16.95	133.2	31.44	0.6401	18.72	133.1	27.8	43.46	0.1333
November	34.45	0.2574	21.24	81.52	34.62	0.2551	22.54	71.41	31.22	37.42	0.06667
December	28.95	0.3254	17.86	85.3	28.58	0.3462	17.99	85	26.14	31.06	0.3333
January	26.7	0.3489	16.65	50.46	26.37	0.3354	16.41	44.34	24.36	30.16	0
February	27.81	0.3434	19.12	46.57	27.31	0.283	18.58	41.17	26.32	30.47	-0.1333
March	33.63	0.2533	20.05	71.09	32.82	0.2561	19.74	70.83	31.37	35.32	-0.1333
April	101.9	0.5262	39.93	458.8	101.2	0.5302	39.93	457.9	89.9	126.8	0.06667
May	221.6	0.9202	77.8	1016	219.5	0.7508	75.71	865.6	174.5	293.5	0.06667
June	374.6	1.38	59.14	1413	307.5	0.9509	46.67	1408	215.6	585.9	0.3333
July	73.33	1.851	39.23	833.2	69.76	0.8133	35.85	797	57.92	111.5	0
August	50.31	0.3591	34.97	231.4	46.17	0.4007	32.19	204.2	45.34	54.51	-0.2667
September	41.01	0.3687	20.1	85.14	40.03	0.3991	18.18	83.95	33.92	43.62	0.06667
Parameter Group #2											
1-day minimum	19.06	0.2513	12.36	32.58	19.16	0.2046	14.73	30.33	17.9	20.24	0.2
3-day minimum	20.07	0.235	12.78	35.06	20.04	0.1912	14.79	30.49	18.67	21.67	0.2
7-day minimum	20.74	0.2107	13.03	36.1	20.65	0.1901	14.95	31.76	19.44	22.32	0.06667
30-day minimum	24.04	0.2719	16.5	42.45	23.87	0.2686	16.51	36.62	22.66	26.98	-0.06667
90-day minimum	26.59	0.3118	18.43	49.52	26.8	0.3321	18.24	38.74	25.07	29.21	-0.06667
1-day maximum	855.5	0.9571	145.9	2359	658.8	1.221	145.3	2341	552.7	1128	0.1333
3-day maximum	833.8	0.9475	133.6	2138	594.7	1.246	133.4	2119	494.5	1028	0
7-day maximum	719	1.016	130	2021	507.9	1.245	129.4	2000	440.4	919.3	-0.06667
30-day maximum	468.6	1.161	109.1	1589	370.2	0.9633	108.4	1570	298.4	732.1	0.4667
90-day maximum	284.3	1.096	83.52	995.9	259.6	0.8686	78.82	889.6	193.8	420.1	0.4667
Number of zero days	0	0	0	0	0	0	0	0	0	0	0
Base flow index	0.2083	0.8052	0.05338	0.4016	0.2392	0.7196	0.08762	0.4628	0.1608	0.2659	0.2
Parameter Group #3											
Date of minimum	271	0.3689	10	366	267	0.3429	5	366	261.4	275.8	0
Date of maximum	163	0.06148	98	189	161	0.06284	98	273	151.7	169	0
Parameter Group #4											
Low pulse count	8	0.6875	0	18	8	0.6875	0	19	6	10	0
Low pulse duration	3	1.125	1	46	3	0.9583	1	47	2	5	0.07143
High pulse count	6	0.8333	1	15	6	0.6667	1	19	4.18	7	0.1765
High pulse duration	3	2.167	1	162	3	1.833	1	114	2	4.91	0
The low pulse threshold is			33.14								
The high pulse threshold is			62.36								
Parameter Group #5											
Rise rate	2.36	0.429	0.81	5.2	2.27	0.3877	1.02	5.33	1.989	2.597	0
Fall rate	-2.32	-0.4817	-4.18	-0.955	-2.165	-0.455	-3.87	-0.955	-2.72	-1.985	-0.06667
Number of reversals	164	0.07927	147	200	168	0.07738	149	208	163	169.8	0
Assessment of Hydrologic Alteration											
	Middle RVA Category			High RVA Category			Low RVA Category				
	Expected	Observed	Alter.	Expected	Observed	Alter.	Expected	Observed	Alter.		
Parameter Group #1											
October	15	17	0.1333	15	14	-0.06667	15	14	-0.06667		
November	15	16	0.06667	15	14	-0.06667	15	15	0		
December	15	20	0.3333	15	13	-0.1333	15	12	-0.2		
January	15	15	0	15	14	-0.06667	15	16	0.06667		
February	15	13	-0.1333	15	13	-0.1333	15	19	0.2667		
March	15	13	-0.1333	15	13	-0.1333	15	19	0.2667		
April	15	16	0.06667	15	14	-0.06667	15	15	0		
May	15	16	0.06667	15	13	-0.1333	15	16	0.06667		
June	15	20	0.3333	15	8	-0.4667	15	17	0.1333		
July	15	15	0	15	10	-0.3333	15	20	0.3333		
August	15	11	-0.2667	15	14	-0.06667	15	20	0.3333		
September	15	16	0.06667	15	12	-0.2	15	17	0.1333		
Parameter Group #2											
1-day minimum	15	18	0.2	15	16	0.06667	15	11	-0.2667		
3-day minimum	15	18	0.2	15	14	-0.06667	15	13	-0.1333		
7-day minimum	15	16	0.06667	15	15	0	15	14	-0.06667		
30-day minimum	15	14	-0.06667	15	14	-0.06667	15	17	0.1333		
90-day minimum	15	14	-0.06667	15	15	0	15	16	0.06667		
1-day maximum	15	17	0.1333	15	10	-0.3333	15	18	0.2		
3-day maximum	15	15	0	15	11	-0.2667	15	19	0.2667		
7-day maximum	15	14	-0.06667	15	11	-0.2667	15	20	0.3333		
30-day maximum	15	22	0.4667	15	6	-0.6	15	17	0.1333		
90-day maximum	15	22	0.4667	15	6	-0.6	15	17	0.1333		
Number of zero days	45	45	0	0	0		0	0			
Base flow index	15	18	0.2	15	18	0.2	15	9	-0.4		
Parameter Group #3											
Date of minimum	15	15	0	15	13	-0.1333	15	17	0.1333		
Date of maximum	16	16	0	14	14	0	15	15	0		
Parameter Group #4											
Low pulse count	22	22	0	10	11	0.1	13	12	-0.07692		
Low pulse duration	28	30	0.07143	11	10	-0.09091	5	4	-0.2		
High pulse count	17	20	0.1765	13	9	-0.3077	15	16	0.06667		
High pulse duration	24	24	0	15	19	0.2667	6	2	-0.6667		
Parameter Group #5											
Rise rate	15	15	0	15	14	-0.06667	15	16	0.06667		
Fall rate	15	14	-0.06667	15	20	0.3333	15	11	-0.2667		
Number of reversals	16	16	0	15	19	0.2667	14	10	-0.2857		

Non-Parametric IHA Scorecard								
Fraser River below Crooked Creek (Node 2810)								
Pre-impact period: Current Conditions (1947-1991)				Post-impact period: Full Use (1947-1991)				
NormalizationFactor	1			1				
Mean annual flow	117.5			113.8				
Non-Normalized Mean Fl	117.5			113.8				
Annual C. V.	1.8			1.81				
Flow predictability	0.6			0.6				
Constancy/predictability	0.61			0.62				
% of floods in 60d period	0.36			0.36				
Flood-free season	65			66				
	MEDIANS		COEFF. of DISP.		DEVIATION FACTOR		SIGNIFICANCE COUNT	
	Pre	Post	Pre	Post	Medians	C.D.	Medians	C.D.
Parameter Group #1								
October	31.53	31.44	0.6226	0.6401	0.002854	0.02815	0.977	0.8999
November	34.45	34.62	0.2574	0.2551	0.004935	0.00884	0.9199	0.988
December	28.95	28.58	0.3254	0.3462	0.01278	0.06402	0.8579	0.9139
January	26.7	26.37	0.3489	0.3496	0.01236	0.002188	0.8318	0.995
February	27.81	27.31	0.3434	0.3523	0.01798	0.02577	0.6867	0.9429
March	33.63	32.83	0.2533	0.256	0.02379	0.01054	0.6707	0.981
April	101.9	101.2	0.5262	0.5302	0.007067	0.007493	0.7988	0.969
May	221.6	235.6	0.9202	0.9649	0.0636	0.04853	0.8378	0.8649
June	374.6	367.7	1.38	1.353	0.01842	0.01924	0.8719	0.9429
July	73.33	69.76	1.851	1.316	0.04868	0.2892	0.7928	0.5586
August	50.31	46.17	0.3591	0.4007	0.08229	0.1159	0.2412	0.5546
September	41.01	40.04	0.3687	0.399	0.02377	0.08228	0.4364	0.7928
Parameter Group #2								
1-day minimum	19.06	19.16	0.2513	0.2176	0.005247	0.134	0.6847	0.5716
3-day minimum	20.07	20.04	0.235	0.1912	0.001661	0.1863	0.8859	0.4384
7-day minimum	20.74	20.64	0.2107	0.1901	0.004752	0.09769	0.8509	0.6296
30-day minimum	24.04	23.87	0.2719	0.2686	0.006851	0.01223	0.8288	0.9449
90-day minimum	26.59	26.8	0.3118	0.3321	0.007796	0.06498	0.9249	0.8639
1-day maximum	855.5	824.5	0.9571	0.9772	0.03631	0.02103	0.8498	0.9449
3-day maximum	833.8	742.3	0.9475	1.066	0.1097	0.1246	0.8649	0.7638
7-day maximum	719	687.1	1.016	1.047	0.04436	0.03074	0.9409	0.952
30-day maximum	468.6	475.1	1.161	1.148	0.01381	0.01098	0.9339	0.9469
90-day maximum	284.3	278.2	1.096	1.1	0.02156	0.003724	0.9419	0.995
Number of zero days	0	0	0	0				
Base flow index	0.2083	0.2161	0.8052	0.8065	0.03732	0.001652	0.8328	0.994
Parameter Group #3								
Date of minimum	271	267	0.3689	0.3429	0.02186	0.07037	0.7658	0.955
Date of maximum	163	163	0.06148	0.06284	0	0.02222	0.964	0.8639
Parameter Group #4								
Low pulse count	7	7	1	0.8571	0	0.1429	0.9219	0.7207
Low pulse duration	3	3	1.333	1	0	0.25	0.3283	0.3814
High pulse count	5	5	1	0.6	0	0.4	0.4695	0.1622
High pulse duration	3	4	2.417	2	0.3333	0.1724	0.2693	0.7127
Low Pulse Threshold	32.65							
High Pulse Threshold	64.81							
Parameter Group #5								
Rise rate	2.36	2.29	0.429	0.4028	0.02966	0.06104	0.6527	0.7838
Fall rate	-2.32	-2.295	-0.4817	-0.439	0.01078	0.08861	0.8919	0.7267
Number of reversals	164	167	0.07927	0.08084	0.01829	0.01981	0.2062	0.9449
EFC Low flows								
October Low Flow	30.88	30.53	0.578	0.5922	0.01133	0.0245	0.9189	0.8789
November Low Flow	34.11	34.22	0.224	0.2518	0.003225	0.124	0.953	0.7978
December Low Flow	28.95	28.58	0.3254	0.3462	0.01278	0.06402	0.8609	0.9119
January Low Flow	26.7	26.37	0.3463	0.3485	0.01236	0.00649	0.8318	0.977
February Low Flow	27.81	27.31	0.3434	0.3523	0.01798	0.02577	0.6867	0.9479
March Low Flow	32.91	32.19	0.2489	0.2538	0.02188	0.01987	0.6837	0.9239
April Low Flow	50.7	50.76	0.4468	0.498	0.001183	0.1145	0.97	0.5876
May Low Flow	83.57	81.52	0.2035	0.2114	0.02447	0.0391	0.4324	0.968
June Low Flow	60.08	46.77	0.4046	0.5867	0.2217	0.4499	0.2052	0.1652
July Low Flow	56.87	51.79	0.3309	0.3376	0.08929	0.02015	0.1461	0.953
August Low Flow	48.57	45.47	0.3522	0.3908	0.06378	0.1096	0.3203	0.6496
September Low Flow	37.67	36.04	0.3729	0.4163	0.0434	0.1164	0.4615	0.7708
EFC Parameters								
High flow peak	89.2	93.48	0.4131	0.3677	0.04798	0.11	0.5896	0.5596
High flow duration	5	5	0.7	0.8	0	0.1429	0.3694	0.6166
High flow timing	203	203	0.2193	0.2213	0	0.009346	0.994	0.972
High flow frequency	5	6	1.1	0.8333	0.2	0.2424	0.1161	0.4144
High flow rise rate	14.63	14.68	0.4053	0.4736	0.003761	0.1686	0.8288	0.5876
High flow fall rate	-9.697	-10.54	-0.5664	-0.5512	0.08732	0.02686	0.3914	0.9309
Small Flood peak	1156	1135	0.2116	0.1893	0.01806	0.1055	0.7287	0.8078
Small Flood duration	96	96	0.2813	0.2604	0	0.07407	0.8849	0.8418
Small Flood timing	169	169	0.03005	0.02186	0	0.2727	0.9179	0.6476
Small Flood freq.	0	0	0	0				
Small Flood riserate	17.37	16.98	0.4544	0.3882	0.02245	0.1457	0.4855	0.7538
Small Flood fallrate	-36.41	-38.47	-0.387	-0.3564	0.05664	0.0791	0.7277	0.8689
Large flood peak	2236	2235	0.1458	0.1278	0.0005255	0.1236	0.9299	0.8158
Large flood duration	121.5	114	0.3704	0.3355	0.06173	0.09408	0.8098	0.6617
Large flood timing	171.5	171.5	0.08333	0.08333	0	0	0.9159	0.8549
Large flood freq.	0	0	0	0				
Large flood riserate	32.51	32.45	1.535	1.525	0.001744	0.006242	0.6927	0.9209
Large flood fallrate	-31.45	-37.88	-0.8943	-0.7889	0.2047	0.1179	0.5035	0.8418
EFC low flow threshold:		42.78						
EFC high flow threshold:		90.96						
EFC small flood minimum peak flow:		855.5						
EFC large flood minimum peak flow:		1667						

IHA Non-Parametric RVA Scorecard
Fraser River below Crooked Creek (Node 2810)

	Pre-impact period: Current Conditions				Post-impact period: Full Use				RVA Boundaries		Hydrologic Alteration (Middle Category)
	Medians	Coeff. of Dispersion	Minimum	Maximum	Medians	Coeff. of Dispersion	Minimum	Maximum	Low	High	
Parameter Group #1											
October	31.53	0.6226	16.95	133.2	31.44	0.6401	18.72	133.1	27.8	43.46	0.1333
November	34.45	0.2574	21.24	81.52	34.62	0.2551	22.54	71.41	31.22	37.42	0.06667
December	28.95	0.3254	17.86	85.3	28.58	0.3462	17.99	85	26.14	31.06	0.3333
January	26.7	0.3489	16.65	50.46	26.37	0.3496	16.41	48.58	24.36	30.16	0
February	27.81	0.3434	19.12	46.57	27.31	0.3523	18.58	46.06	26.32	30.47	-0.2
March	33.63	0.2533	20.05	71.09	32.83	0.256	19.74	70.83	31.37	35.32	-0.1333
April	101.9	0.5262	39.93	458.8	101.2	0.5302	39.93	457.9	89.9	126.8	0.06667
May	221.6	0.9202	77.8	1016	235.6	0.9649	75.71	933.8	174.5	293.5	-0.06667
June	374.6	1.38	59.14	1413	367.7	1.353	47.89	1408	215.6	585.9	0
July	73.33	1.851	39.23	833.2	69.76	1.316	35.85	803.5	57.92	111.5	-0.2667
August	50.31	0.3591	34.97	231.4	46.17	0.4007	32.19	210	45.34	54.51	-0.2667
September	41.01	0.3687	20.1	85.14	40.04	0.399	18.18	83.95	33.92	43.62	0.06667
Parameter Group #2											
1-day minimum	19.06	0.2513	12.36	32.58	19.16	0.2176	14.73	31.4	17.9	20.24	0.1333
3-day minimum	20.07	0.235	12.78	35.06	20.04	0.1912	14.79	33.18	18.67	21.67	0.2
7-day minimum	20.74	0.2107	13.03	36.1	20.64	0.1901	14.95	34.22	19.44	22.32	0.06667
30-day minimum	24.04	0.2719	16.5	42.45	23.87	0.2686	16.51	40.54	22.66	26.98	-0.06667
90-day minimum	26.59	0.3118	18.43	49.52	26.8	0.3321	18.24	48.98	25.07	29.21	-0.06667
1-day maximum	855.5	0.9571	145.9	2359	824.5	0.9772	145.3	2348	552.7	1128	0
3-day maximum	833.8	0.9475	133.6	2138	742.3	1.066	133.4	2124	494.5	1028	-0.06667
7-day maximum	719	1.016	130	2021	687.1	1.047	129.4	2030	440.4	919.3	0.06667
30-day maximum	468.6	1.161	109.1	1589	475.1	1.148	108.4	1580	298.4	732.1	0.06667
90-day maximum	284.3	1.096	83.52	995.9	278.2	1.1	78.82	960.5	193.8	420.1	0
Number of zero days	0	0	0	0	0	0	0	0	0	0	0
Base flow index	0.2083	0.8052	0.05338	0.4016	0.2161	0.8065	0.06112	0.4627	0.1608	0.2659	0.06667
Parameter Group #3											
Date of minimum	271	0.3689	10	366	267	0.3429	5	366	261.4	275.8	0
Date of maximum	163	0.06148	98	189	163	0.06284	98	191	151.7	169	0.0625
Parameter Group #4											
Low pulse count	7	1	0	20	7	0.8571	0	20	5.18	10	0.1765
Low pulse duration	3	1.333	1	46	3	1	1	46	2	5	0.24
High pulse count	5	1	1	16	5	0.6	1	17	4	6	0.1053
High pulse duration	3	2.417	1	127	4	2	1	125	2.5	6.73	-0.2222
The low pulse threshold is			32.65								
The high pulse threshold is			64.81								
Parameter Group #5											
Rise rate	2.36	0.429	0.81	5.2	2.29	0.4028	1.02	5.89	1.989	2.597	-0.06667
Fall rate	-2.32	-0.4817	-4.18	-0.955	-2.295	-0.439	-3.97	-0.93	-2.72	-1.985	-0.06667
Number of reversals	164	0.07927	147	200	167	0.08084	147	210	163	169.8	-0.3125

Assessment of Hydrologic Alteration

	Middle RVA Category			High RVA Category			Low RVA Category			
	Expected	Observed	Alter.	Expected	Observed	Alter.	Expected	Observed	Alter.	
Parameter Group #1										
October	15	17	0.1333	15	14	-0.06667	15	14	-0.06667	
November	15	16	0.06667	15	14	-0.06667	15	15	0	
December	15	20	0.3333	15	13	-0.1333	15	12	-0.2	
January	15	15	0	15	14	-0.06667	15	16	0.06667	
February	15	12	-0.2	15	14	-0.06667	15	19	0.2667	
March	15	13	-0.1333	15	13	-0.1333	15	19	0.2667	
April	15	16	0.06667	15	14	-0.06667	15	15	0	
May	15	14	-0.06667	15	16	0.06667	15	15	0	
June	15	15	0	15	14	-0.06667	15	16	0.06667	
July	15	11	-0.2667	15	14	-0.06667	15	20	0.3333	
August	15	11	-0.2667	15	14	-0.06667	15	20	0.3333	
September	15	16	0.06667	15	12	-0.2	15	17	0.1333	
Parameter Group #2										
1-day minimum	15	17	0.1333	15	16	0.06667	15	12	-0.2	
3-day minimum	15	18	0.2	15	14	-0.06667	15	13	-0.1333	
7-day minimum	15	16	0.06667	15	15	0	15	14	-0.06667	
30-day minimum	15	14	-0.06667	15	14	-0.06667	15	17	0.1333	
90-day minimum	15	14	-0.06667	15	15	0	15	16	0.06667	
1-day maximum	15	15	0	15	13	-0.1333	15	17	0.1333	
3-day maximum	15	14	-0.06667	15	14	-0.06667	15	17	0.1333	
7-day maximum	15	16	0.06667	15	13	-0.1333	15	16	0.06667	
30-day maximum	15	16	0.06667	15	13	-0.1333	15	16	0.06667	
90-day maximum	15	15	0	15	14	-0.06667	15	16	0.06667	
Number of zero days	45	45	0	0	0		0	0		
Base flow index	15	16	0.06667	15	16	0.06667	15	13	-0.1333	
Parameter Group #3										
Date of minimum	15	15	0	15	13	-0.1333	15	17	0.1333	
Date of maximum	16	17	0.0625	14	14	0	15	14	-0.06667	
Parameter Group #4										
Low pulse count	17	20	0.1765	13	14	0.07692	15	11	-0.2667	
Low pulse duration	25	31	0.24	12	10	-0.1667	7	3	-0.5714	
High pulse count	19	21	0.1053	14	14	0	12	10	-0.1667	
High pulse duration	18	14	-0.2222	15	15	0	12	16	0.3333	
Parameter Group #5										
Rise rate	15	14	-0.06667	15	15	0	15	16	0.06667	
Fall rate	15	14	-0.06667	15	19	0.2667	15	12	-0.2	
Number of reversals	16	11	-0.3125	15	20	0.3333	14	14	0	

Non-Parametric IHA Scorecard								
Bobtail Ck Diversion (Node 3150)								
Pre-impact period: Current Conditions (1947-1991)				Post-impact period: Alt. 1a (1947-1991)				
NormalizationFactor	1			1				
Mean annual flow	4.98			3.26				
Non-Normalized Mean Fl	4.98			3.26				
Annual C. V.	3.47			4.69				
Flow predictability	0.84			0.93				
Constancy/predictability	0.87			0.94				
% of floods in 60d period	0.67			0.67				
Flood-free season	16			102				
	MEDIANS		COEFF. of DISP.		DEVIATION FACTOR		SIGNIFICANCE COUNT	
	Pre	Post	Pre	Post	Medians	C.D.	Medians	C.D.
Parameter Group #1								
October	0	0	0	0				
November	0	0	0	0				
December	0	0	0	0				
January	0	0	0	0				
February	0	0	0	0				
March	0	0	0	0				
April	0	0	0	0				
May	0	0	0	0				
June	43.35	0	1.449	0	1	1	0.1421	0.07307
July	11	0	2.863	0	1	1	0.00	0.00
August	0	0	0	0				
September	0	0	0	0				
Parameter Group #2								
1-day minimum	0	0	0	0				
3-day minimum	0	0	0	0				
7-day minimum	0	0	0	0				
30-day minimum	0	0	0	0				
90-day minimum	0	0	0	0				
1-day maximum	96.6	95	0.4881	0.8068	0.01656	0.653	0.8749	0.2863
3-day maximum	88.67	82.69	0.5376	1.073	0.06741	0.9952	0.6336	0.08909
7-day maximum	75.43	62.57	0.8623	1.398	0.1705	0.6214	0.4565	0.1441
30-day maximum	49.11	25.63	1.095	2.283	0.478	1.085	0.1502	0.03003
90-day maximum	21.2	8.553	1.175	2.713	0.5965	1.308	0.1031	0.02803
Number of zero days	322	348	0.1009	0.09195	0.08075	0.08895	0.00	0.7548
Base flow index	0	0	0	0				
Parameter Group #3								
Date of minimum	275	275	0	0	0		0.00	
Date of maximum	171	171	0.03825	0.05055	0	0.3214	0.9319	0.2843
Parameter Group #4								
Low pulse count	0	0	0	0				
Low pulse duration								
High pulse count	3	2	0.6667	1	0.3333	0.5	0.006006	0.1732
High pulse duration	4	3.5	2.125	2.286	0.125	0.07563	0.8188	0.8498
Low Pulse Threshold	0							
High Pulse Threshold	0							
Parameter Group #5								
Rise rate	6	8.85	1.316	1.439	0.475	0.09359	0.01301	0.8218
Fall rate	-3	-6	-1.093	-1.307	1	0.196	0.00	0.5996
Number of reversals	15	7	0.7333	1.571	0.5333	1.143	0.01502	0.008008
EFC Low flows								
October Low Flow	0	0	0	0				
November Low Flow	0	0	0	0				
December Low Flow	0	0	0	0				
January Low Flow	0	0	0	0				
February Low Flow	0	0	0	0				
March Low Flow	0	0	0	0				
April Low Flow	0	0	0	0				
May Low Flow	0	0	0	0				
June Low Flow	0	0	0	0				
July Low Flow	0	0	0	0				
August Low Flow	0	0	0	0				
September Low Flow	0	0	0	0				
EFC Parameters								
High flow peak	24	42.45	1.222	0.9048	0.7688	0.2595	0.008008	0.2813
High flow duration	2.5	2.5	2	1.6	0	0.2	0.976	0.6376
High flow timing	191	173.3	0.0444	0.08675	0.09699	0.9538	0.003003	0.002002
High flow frequency	3	1	1	2	0.6667	1	0.02903	0.01001
High flow rise rate	15.33	29.31	0.9519	0.9793	0.9112	0.02875	0.004004	0.9259
High flow fall rate	-8.4	-16.37	-1.445	-1.293	0.9485	0.1054	0.00	0.7698
Small Flood peak	109	109.1	0.1431	0.1464	0.0009174	0.0231	0.8959	0.9149
Small Flood duration	41	23	1.049	1.228	0.439	0.1711	0.2062	0.6396
Small Flood timing	171	171	0.02186	0.02152	0	0.01562	0.7477	0.971
Small Flood freq.	0	0	0	0				
Small Flood riserate	12.11	20.45	1.645	1.052	0.6885	0.3606	0.03904	0.3934
Small Flood fallrate	-4.964	-6.662	-6.468	-5.304	0.3421	0.1799	0.2833	0.8569
Large flood peak	146.1	146.1	0.06282	0.06282	0	0	0.9249	0.8799
Large flood duration	53	26	1.42	1.865	0.5094	0.3138	0.5586	0.5776
Large flood timing	176.5	176.5	0.03142	0.03142	0	0	0.9269	0.8488
Large flood freq.	0	0	0	0				
Large flood riserate	7.738	11.47	0.8621	0.7655	0.4826	0.112	0.1091	0.8008
Large flood fallrate	-4.627	-10.31	-7.298	-3.381	1.228	0.5367	0.2763	0.5526
EFC low flow threshold:								
EFC high flow threshold:		5						
EFC small flood minimum peak flow:		96.6						
EFC large flood minimum peak flow:		133						

IHA Non-Parametric RVA Scorecard
Bobtail Ck Diversion (Node 3150)

	Pre-impact period: Current Conditions				Post-impact period: Alt. 1a						Hydrologic Alteration
		Coeff. of				Coeff. of			RVA Boundaries		(Middle
	Medians	Dispersion	Minimum	Maximum	Medians	Dispersion	Minimum	Maximum	Low	High	Category)
Parameter Group #1											
October	0	0	0	5.47	0	0	0	0	0	0	0.02273
November	0	0	0	2.59	0	0	0	0	0	0	0.04651
December	0	0	0	1.51	0	0	0	0	0	0	0.04651
January	0	0	0	1.19	0	0	0	0	0	0	0.04651
February	0	0	0	0.78	0	0	0	0	0	0	0.04651
March	0	0	0	0	0	0	0	0	0	0	0
April	0	0	0	0	0	0	0	0	0	0	0
May	0	0	0	24	0	0	0	0	0	0	0.04651
June	43.35	1.449	0	93.95	0	0	0	87.85	0	52.78	0.2667
July	11	2.863	0	62	0	0	0	62	0.6102	17.48	-0.9333
August	0	0	0	23.4	0	0	0	21.96	0	0	0.075
September	0	0	0	2.15	0	0	0	0	0	0	0.02273
Parameter Group #2											
1-day minimum	0	0	0	0	0	0	0	0	0	0	0
3-day minimum	0	0	0	0	0	0	0	0	0	0	0
7-day minimum	0	0	0	0	0	0	0	0	0	0	0
30-day minimum	0	0	0	0	0	0	0	0	0	0	0
90-day minimum	0	0	0	0.2033	0	0	0	0	0	0	0.02273
1-day maximum	96.6	0.4881	0.7	150.2	95	0.8068	0	150.2	78.77	105	0.0625
3-day maximum	88.67	0.5376	0.2333	143.3	82.69	1.073	0	143.3	66.09	100.5	-0.2
7-day maximum	75.43	0.8623	0.1	140	62.57	1.398	0	140	55.96	90.53	-0.2
30-day maximum	49.11	1.095	0.02333	103.6	25.63	2.283	0	103.6	20.69	65.69	0.06667
90-day maximum	21.2	1.175	0.007778	53.82	8.553	2.713	0	50.23	8.437	28.09	0.2
Number of zero days	322	0.1009	156	365	348	0.09195	280	366	312.9	336	-0.1875
Base flow index	0	0	0	0	0	0	0	0	0	0	0
Parameter Group #3											
Date of minimum	275	0	275	277	275	0	275	275	275	275	0.02273
Date of maximum	171	0.03825	75	193	171	0.05055	75	275	167	174.6	-0.125
Parameter Group #4											
Low pulse count	0	0	0	0	0	0	0	0	0	0	0
Low pulse duration											
High pulse count	3	0.6667	1	10	2	1	0	12	3	4	-0.2727
High pulse duration	4	2.125	1	105	3.5	2.286	1	74	2	8.64	-0.05556
The low pulse threshold is			0								
The high pulse threshold is			0								
Parameter Group #5											
Rise rate	6	1.316	0.45	109.3	8.85	1.439	0.7	109.3	3.598	8.68	0
Fall rate	-3	-1.093	-74.15	-0.16	-6	-1.307	-81.37	-0.67	-4	-2	-0.3889
Number of reversals	15	0.7333	1	59	7	1.571	0	29	13	19	-0.5556

Assessment of Hydrologic Alteration

	Middle RVA Category			High RVA Category			Low RVA Category		
	Expected	Observed	Alter.	Expected	Observed	Alter.	Expected	Observed	Alter.
Parameter Group #1									
October	44	45	0.02273	1	0	-1			
November	43	45	0.04651	2	0	-1			
December	43	45	0.04651	2	0	-1			
January	43	45	0.04651	2	0	-1			
February	43	45	0.04651	2	0	-1			
March	45	45	0						
April	45	45	0						
May	43	45	0.04651	2	0	-1			
June	30	38	0.2667	15	7	-0.5333			
July	15	1	-0.9333	15	9	-0.4	15	35	1.333
August	40	43	0.075	5	2	-0.6			
September	44	45	0.02273	1	0	-1			
Parameter Group #2									
1-day minimum	45	45	0	0	0		0	0	
3-day minimum	45	45	0	0	0		0	0	
7-day minimum	45	45	0	0	0		0	0	
30-day minimum	45	45	0	0	0		0	0	
90-day minimum	44	45	0.02273	1	0	-1	0	0	
1-day maximum	16	17	0.0625	14	14	0	15	14	-0.06667
3-day maximum	15	12	-0.2	15	15	0	15	18	0.2
7-day maximum	15	12	-0.2	15	15	0	15	18	0.2
30-day maximum	15	16	0.06667	15	9	-0.4	15	20	0.3333
90-day maximum	15	18	0.2	15	5	-0.6667	15	22	0.4667
Number of zero days	16	13	-0.1875	14	29	1.071	15	3	-0.8
Base flow index	45	45	0	0	0		0	0	
Parameter Group #3									
Date of minimum	44	45	0.02273	1	0	-1	0	0	
Date of maximum	16	14	-0.125	15	17	0.1333	14	14	0
Parameter Group #4									
Low pulse count	45	45	0	0	0		0	0	
Low pulse duration	0	0		0	0		0	0	
High pulse count	22	16	-0.2727	13	6	-0.5385	10	23	1.3
High pulse duration	18	17	-0.05556	15	10	-0.3333	12	12	0
Parameter Group #5									
Rise rate	15	15	0	15	20	0.3333	15	4	-0.7333
Fall rate	18	11	-0.3889	13	4	-0.6923	14	24	0.7143
Number of reversals	18	8	-0.5556	13	5	-0.6154	14	32	1.286

Non-Parametric IHA Scorecard								
Bobtail Creek Diversion (Node 3150)								
Pre-impact period: Current Conditions (1947-1991)				Post-impact period: Full Use (1947-1991)				
NormalizationFactor	1			1				
Mean annual flow	4.98			4.44				
Non-Normalized Mean Fl	4.98			4.44				
Annual C. V.	3.47			3.84				
Flow predictability	0.84			0.89				
Constancy/predictability	0.87			0.91				
% of floods in 60d period	0.67			0.67				
Flood-free season	16			19				
	MEDIANS		COEFF. of DISP.		DEVIATION FACTOR		SIGNIFICANCE COUNT	
	Pre	Post	Pre	Post	Medians	C.D.	Medians	C.D.
Parameter Group #1								
October	0	0	0	0				
November	0	0	0	0				
December	0	0	0	0				
January	0	0	0	0				
February	0	0	0	0				
March	0	0	0	0				
April	0	0	0	0				
May	0	0	0	0				
June	43.35	41	1.449	1.532	0.05421	0.05732	0.8418	0.7928
July	11	0	2.863	0	1	1	0.00	0.00
August	0	0	0	0				
September	0	0	0	0				
Parameter Group #2								
1-day minimum	0	0	0	0				
3-day minimum	0	0	0	0				
7-day minimum	0	0	0	0				
30-day minimum	0	0	0	0				
90-day minimum	0	0	0	0				
1-day maximum	96.6	96.6	0.4881	0.4933	0	0.0106	0.997	0.981
3-day maximum	88.67	88.67	0.5376	0.5377	0	0.0002098	0.998	1
7-day maximum	75.43	75.43	0.8623	0.8853	0	0.02656	0.997	0.968
30-day maximum	49.11	45.6	1.095	1.367	0.07149	0.2489	0.8889	0.4144
90-day maximum	21.2	16.79	1.175	1.618	0.208	0.3772	0.4555	0.1742
Number of zero days	322	334	0.1009	0.1228	0.03727	0.2162	0.1141	0.3514
Base flow index	0	0	0	0				
Parameter Group #3								
Date of minimum	275	275	0	0	0		0.00	
Date of maximum	171	170	0.03825	0.03552	0.005464	0.07143	0.5145	0.8338
Parameter Group #4								
Low pulse count	0	0	0	0				
Low pulse duration								
High pulse count	3	2	0.6667	1.5	0.3333	1.25	0.008008	0.002002
High pulse duration	4	6.5	2.125	3.096	0.625	0.457	0.2593	0.3113
Low Pulse Threshold	0							
High Pulse Threshold	0							
Parameter Group #5								
Rise rate	6	6.535	1.316	1.655	0.08917	0.258	0.3223	0.6096
Fall rate	-3	-4	-1.093	-1.231	0.3333	0.127	0.01902	0.7848
Number of reversals	15	11	0.7333	1.091	0.2667	0.4876	0.1021	0.07808
EFC Low flows								
October Low Flow	0	0	0	0				
November Low Flow	0	0	0	0				
December Low Flow	0	0	0	0				
January Low Flow	0	0	0	0				
February Low Flow	0	0	0	0				
March Low Flow	0	0	0	0				
April Low Flow	0	0	0	0				
May Low Flow	0	0	0	0				
June Low Flow	0	0	0	0				
July Low Flow	0	0	0	0				
August Low Flow	0	0	0	0				
September Low Flow	0	0	0	0				
EFC Parameters								
High flow peak	24	36.45	1.222	1.131	0.5185	0.07416	0.007007	0.7798
High flow duration	2.5	3.25	2	1.615	0.3	0.1923	0.6507	0.7097
High flow timing	191	182.3	0.0444	0.08811	0.04781	0.9846	0.04805	0.003003
High flow frequency	3	1	1	1.5	0.6667	0.5	0.02903	0.03704
High flow rise rate	15.33	16.9	0.9519	1.395	0.1022	0.4651	0.6156	0.1451
High flow fall rate	-8.4	-12.02	-1.445	-1.336	0.4314	0.0758	0.1502	0.8028
Small Flood peak	109	109	0.1431	0.1431	0	0	0.963	1
Small Flood duration	41	39	1.049	1	0.04878	0.04651	0.7347	0.9129
Small Flood timing	171	171	0.02186	0.02186	0	0	0.8769	0.987
Small Flood freq.	0	0	0	0				
Small Flood riserate	12.11	12.48	1.645	1.575	0.03075	0.04258	0.8959	0.9349
Small Flood fallrate	-4.964	-5.833	-6.468	-5.425	0.1752	0.1612	0.4795	0.8839
Large flood peak	146.1	146.1	0.06282	0.06282	0	0	0.9079	0.8689
Large flood duration	53	51.5	1.42	1.345	0.0283	0.05293	0.959	0.9179
Large flood timing	176.5	176.5	0.03142	0.03142	0	0	0.8979	0.8368
Large flood freq.	0	0	0	0				
Large flood riserate	7.738	7.851	0.8621	0.8254	0.01452	0.04254	0.9069	0.8699
Large flood fallrate	-4.627	-4.703	-7.298	-7.147	0.01632	0.02066	0.9099	0.8488
EFC low flow threshold:								
EFC high flow threshold:		5						
EFC small flood minimum peak flow:		96.6						
EFC large flood minimum peak flow:		133						

IHA Non-Parametric RVA Scorecard
Bobtail Creek Diversion (Node 3150)

	Pre-impact period: Current Conditions				Post-impact period: Full Use				RVA Boundaries		Hydrologic Alteration (Middle
	Medians	Coeff. of Dispersion	Minimum	Maximum	Medians	Coeff. of Dispersion	Minimum	Maximum	Low	High	Category)
Parameter Group #1											
October	0	0	0	5.47	0	0	0	3.18	0	0	0
November	0	0	0	2.59	0	0	0	2.59	0	0	0.02326
December	0	0	0	1.51	0	0	0	1.5	0	0	0.02326
January	0	0	0	1.19	0	0	0	1.19	0	0	0.02326
February	0	0	0	0.78	0	0	0	0.78	0	0	0
March	0	0	0	0	0	0	0	0	0	0	0
April	0	0	0	0	0	0	0	0	0	0	0
May	0	0	0	24	0	0	0	25	0	0	0.02326
June	43.35	1.449	0	93.95	41	1.532	0	93.95	0	52.78	0
July	11	2.863	0	62	0	0	0	62	0.6102	17.48	-0.9333
August	0	0	0	23.4	0	0	0	21.99	0	0	0.025
September	0	0	0	2.15	0	0	0	0	0	0	0.02273
Parameter Group #2											
1-day minimum	0	0	0	0	0	0	0	0	0	0	0
3-day minimum	0	0	0	0	0	0	0	0	0	0	0
7-day minimum	0	0	0	0	0	0	0	0	0	0	0
30-day minimum	0	0	0	0	0	0	0	0	0	0	0
90-day minimum	0	0	0	0.2033	0	0	0	0	0	0	0.02273
1-day maximum	96.6	0.4881	0.7	150.2	96.6	0.4933	0	150.2	78.77	105	0.0625
3-day maximum	88.67	0.5376	0.2333	143.3	88.67	0.5377	0	143.3	66.09	100.5	0
7-day maximum	75.43	0.8623	0.1	140	75.43	0.8853	0	140	55.96	90.53	0.1333
30-day maximum	49.11	1.095	0.02333	103.6	45.6	1.367	0	103.6	20.69	65.69	0
90-day maximum	21.2	1.175	0.007778	53.82	16.79	1.618	0	53.72	8.437	28.09	0.06667
Number of zero days	322	0.1009	156	365	334	0.1228	186	366	312.9	336	-0.125
Base flow index	0	0	0	0	0	0	0	0	0	0	0
Parameter Group #3											
Date of minimum	275	0	275	277	275	0	275	275	275	275	0.02273
Date of maximum	171	0.03825	75	193	170	0.03552	75	275	167	174.6	-0.0625
Parameter Group #4											
Low pulse count	0	0	0	0	0	0	0	0	0	0	0
Low pulse duration											
High pulse count	3	0.6667	1	10	2	1.5	0	12	3	4	-0.3636
High pulse duration	4	2.125	1	105	6.5	3.096	1	98	2	8.64	-0.05556
The low pulse threshold is			0								
The high pulse threshold is			0								
Parameter Group #5											
Rise rate	6	1.316	0.45	109.3	6.535	1.655	0.7	92	3.598	8.68	0
Fall rate	-3	-1.093	-74.15	-0.16	-4	-1.231	-53.67	-0.16	-4	-2	-0.1111
Number of reversals	15	0.7333	1	59	11	1.091	0	39	13	19	-0.4444

Assessment of Hydrologic Alteration

	Middle RVA Category			High RVA Category			Low RVA Category		
	Expected	Observed	Alter.	Expected	Observed	Alter.	Expected	Observed	Alter.
Parameter Group #1									
October	44	44	0	1	1	0			
November	43	44	0.02326	2	1	-0.5			
December	43	44	0.02326	2	1	-0.5			
January	43	44	0.02326	2	1	-0.5			
February	43	43	0	2	2	0			
March	45	45	0						
April	45	45	0						
May	43	44	0.02326	2	1	-0.5			
June	30	30	0	15	15	0			
July	15	1	-0.9333	15	11	-0.2667	15	33	1.2
August	40	41	0.025	5	4	-0.2			
September	44	45	0.02273	1	0	-1			
Parameter Group #2									
1-day minimum	45	45	0	0	0		0	0	
3-day minimum	45	45	0	0	0		0	0	
7-day minimum	45	45	0	0	0		0	0	
30-day minimum	45	45	0	0	0		0	0	
90-day minimum	44	45	0.02273	1	0	-1	0	0	
1-day maximum	16	17	0.0625	14	14	0	15	14	-0.06667
3-day maximum	15	15	0	15	15	0	15	15	0
7-day maximum	15	17	0.1333	15	15	0	15	13	-0.1333
30-day maximum	15	15	0	15	15	0	15	15	0
90-day maximum	15	16	0.06667	15	13	-0.1333	15	16	0.06667
Number of zero days	16	14	-0.125	14	22	0.5714	15	9	-0.4
Base flow index	45	45	0	0	0		0	0	
Parameter Group #3									
Date of minimum	44	45	0.02273	1	0	-1	0	0	
Date of maximum	16	15	-0.0625	15	15	0	14	15	0.07143
Parameter Group #4									
Low pulse count	45	45	0	0	0		0	0	
Low pulse duration	0	0		0	0		0	0	
High pulse count	22	14	-0.3636	13	7	-0.4615	10	24	1.4
High pulse duration	18	17	-0.05556	15	17	0.1333	12	8	-0.3333
Parameter Group #5									
Rise rate	15	15	0	15	17	0.1333	15	10	-0.3333
Fall rate	18	16	-0.1111	13	6	-0.5385	14	20	0.4286
Number of reversals	18	10	-0.4444	13	8	-0.3846	14	27	0.9286

Non-Parametric IHA Scorecard								
Williams Fork R. abv Darling Ck gage (Node 3600)								
Pre-impact period: Current Conditions (1947-1991)				Post-impact period: Alt. 1a (1947-1991)				
NormalizationFactor	1			1				
Mean annual flow	30.34			26.48				
Non-Normalized Mean Fl	30.34			26.48				
Annual C. V.	2.09			2.19				
Flow predictability	0.61			0.62				
Constancy/predictability	0.55			0.54				
% of floods in 60d period	0.4			0.4				
Flood-free season	88			97				
	MEDIANS		COEFF. of DISP.		DEVIATION FACTOR		SIGNIFICANCE COUNT	
	Pre	Post	Pre	Post	Medians	C.D.	Medians	C.D.
Parameter Group #1								
October	7.53	7.53	0.3699	0.3699	0	0	0.999	1
November	6.8	6.8	0.3566	0.3335	0	0.06495	0.999	0.7588
December	5.95	5.91	0.4017	0.3562	0.006723	0.1133	0.8819	0.6957
January	5.58	5.44	0.3136	0.2647	0.02509	0.156	0.6767	0.6156
February	5	4.85	0.2855	0.2794	0.03	0.02143	0.6917	0.9229
March	4.96	4.96	0.2661	0.2581	0	0.0303	0.9459	0.8799
April	6.885	6.885	0.4949	0.4949	0	0	0.997	1
May	26.01	26.01	0.5463	0.5463	0	0	1	1
June	178.8	121.3	0.932	1.194	0.3213	0.2806	0.2122	0.2823
July	47	29.63	1.388	1.197	0.3696	0.1376	0.02002	0.8959
August	14.22	13.36	0.5408	0.5644	0.06048	0.04361	0.7257	0.8579
September	9.07	8.935	0.5317	0.5495	0.01488	0.03353	0.8599	0.8509
Parameter Group #2								
1-day minimum	3.71	3.71	0.6307	0.6307	0	0	0.977	1
3-day minimum	4.223	4.163	0.438	0.4347	0.01421	0.007522	0.9489	0.958
7-day minimum	4.337	4.324	0.4147	0.3959	0.002964	0.04522	0.8829	0.8849
30-day minimum	4.73	4.53	0.2386	0.2392	0.04235	0.002739	0.6476	0.993
90-day minimum	5.163	5.043	0.245	0.233	0.02333	0.04875	0.7087	0.8729
1-day maximum	324.1	323.8	0.5227	0.6543	0.0008024	0.2518	0.9129	0.5275
3-day maximum	313.7	313.7	0.4678	0.7036	6.382E-05	0.5042	1	0.2693
7-day maximum	270.9	252.8	0.5467	0.8309	0.06694	0.5198	0.5986	0.2553
30-day maximum	208.7	155.5	0.7317	0.9542	0.2547	0.3041	0.1441	0.3463
90-day maximum	100.5	78.76	0.7491	0.8144	0.2166	0.08718	0.1622	0.7117
Number of zero days	0	0	0	0				
Base flow index	0.1382	0.1595	0.7051	0.8085	0.1545	0.1466	0.2603	0.7037
Parameter Group #3								
Date of minimum	66	48	0.3989	0.429	0.09836	0.07534	0.7758	0.8338
Date of maximum	169	167	0.03825	0.03279	0.01093	0.1429	0.2933	0.5325
Parameter Group #4								
Low pulse count	6	6	1.167	1.167	0	0	0.8228	0.954
Low pulse duration	3	3	2.083	2	0	0.04	0.5806	0.9129
High pulse count	4	4	0.5	0.75	0	0.5	0.1602	0.1842
High pulse duration	5	4.5	4.1	4.333	0.1	0.05691	0.8428	0.951
Low Pulse Threshold	6							
High Pulse Threshold	12.56							
Parameter Group #5								
Rise rate	0.535	0.49	0.5841	0.4286	0.08411	0.2663	0.2432	0.5566
Fall rate	-0.685	-0.6	-0.4416	-0.5125	0.1241	0.1605	0.2412	0.3634
Number of reversals	134	137	0.1642	0.146	0.02239	0.1108	0.6416	0.4955
EFC Low flows								
October Low Flow	7.32	7.3	0.305	0.3116	0.002732	0.02183	0.9429	0.959
November Low Flow	6.73	6.73	0.3377	0.3221	0	0.0462	0.999	0.8348
December Low Flow	5.91	5.89	0.3849	0.3523	0.003384	0.08481	0.8488	0.7908
January Low Flow	5.58	5.44	0.3118	0.2647	0.02509	0.1511	0.6767	0.6226
February Low Flow	5	4.85	0.2855	0.2794	0.03	0.02143	0.6917	0.9229
March Low Flow	4.96	4.96	0.2661	0.2581	0	0.0303	0.9459	0.8809
April Low Flow	6.075	6.075	0.4374	0.4374	0	0	0.998	1
May Low Flow	13.01	12.58	0.4539	0.4731	0.03344	0.04226	0.8969	0.8779
June Low Flow	9.51	12.75	0.5941	0.5698	0.3402	0.04087	0.1351	0.8228
July Low Flow	14.28	14.14	0.3521	0.2716	0.009804	0.2286	0.9459	0.6156
August Low Flow	12	12.31	0.4325	0.4094	0.02562	0.0534	0.7267	0.8478
September Low Flow	8.51	8.503	0.5589	0.562	0.0008813	0.005617	1	0.99
EFC Parameters								
High flow peak	15.97	16.69	0.4551	0.5226	0.04477	0.1484	0.6927	0.4184
High flow duration	4.5	4.5	0.6111	0.7222	0	0.1818	0.6106	0.6196
High flow timing	212	199	0.276	0.1981	0.07104	0.2822	0.5385	0.4264
High flow frequency	5	5	1	1	0	0	0.6466	0.9319
High flow rise rate	2.81	2.7	0.3958	0.5059	0.03915	0.2784	0.4785	0.5526
High flow fall rate	-1.567	-1.717	-0.7108	-0.6682	0.09574	0.05986	0.6917	0.8108
Small Flood peak	362.5	367	0.171	0.1711	0.01266	0.0004818	0.8799	0.995
Small Flood duration	87	85.5	0.2529	0.2778	0.01724	0.09848	0.8448	0.8118
Small Flood timing	170	169.5	0.01913	0.02186	0.002732	0.1429	0.8178	0.8579
Small Flood freq.	0	0	0	0				
Small Flood riserate	9.588	9.703	0.294	0.3069	0.01194	0.04373	0.9029	0.9359
Small Flood fallrate	-6.748	-7.233	-0.3706	-0.4328	0.07187	0.1677	0.4605	0.7958
Large flood peak	503.5	503.5	0.07905	0.07905	0	0	0.9109	0.8739
Large flood duration	88.5	83.5	0.3079	0.3234	0.0565	0.05016	0.5586	0.8198
Large flood timing	177	177	0.03074	0.03074	0	0	0.4855	0.7147
Large flood freq.	0	0	0	0				
Large flood riserate	12.74	12.74	0.2985	0.2985	0	0	0.9109	0.8739
Large flood fallrate	-10.3	-11.15	-0.767	-0.6703	0.08259	0.126	0.8839	0.7758
EFC low flow threshold:		7.8						
EFC high flow threshold:		18.97						
EFC small flood minimum peak flow:		324.1						
EFC large flood minimum peak flow:		464.6						

IHA Non-Parametric RVA Scorecard
Williams Fork R. abv Darling Ck gage (Node 3600)

	Pre-impact period: Current Conditions				Post-impact period: Alt. 1a				RVA Boundaries		Hydrologic Alteration (Middle
	Medians	Coeff. of Dispersion	Minimum	Maximum	Medians	Coeff. of Dispersion	Minimum	Maximum	Low	High	Category)
Parameter Group #1											
October	7.53	0.3699	3.9	29.72	7.53	0.3699	3.9	22.15	6.795	8.664	0
November	6.8	0.3566	2.42	20.5	6.8	0.3335	2.42	13.25	6.055	7.518	0
December	5.95	0.4017	3.03	13.82	5.91	0.3562	3.03	12	5.459	6.598	0
January	5.58	0.3136	2.46	11.9	5.44	0.2647	2.46	7.87	4.904	5.816	0.1333
February	5	0.2855	1.71	9.05	4.85	0.2794	1.71	7.405	4.492	5.308	0.06667
March	4.96	0.2661	1.44	7.02	4.96	0.2581	1.44	7.02	4.675	5.398	0.06667
April	6.885	0.4949	2.39	14.04	6.885	0.4949	2.39	14.04	5.52	7.976	0
May	26.01	0.5463	9.66	112.8	26.01	0.5463	9.66	72.66	22.77	32.93	0
June	178.8	0.932	19.35	355	121.3	1.194	18.31	355	95.22	217.8	0.06667
July	47	1.388	17.88	308	29.63	1.197	8.89	308	41.14	64.85	-0.4
August	14.22	0.5408	5.77	86	13.36	0.5644	5.72	76.62	12.35	16.98	0.06667
September	9.07	0.5317	4.85	26.01	8.935	0.5495	4.58	23.77	7.742	10.63	0.06667
Parameter Group #2											
1-day minimum	3.71	0.6307	0	5.88	3.71	0.6307	0	5.88	2.716	4.267	0.06667
3-day minimum	4.223	0.438	0	6.133	4.163	0.4347	0	6.133	3.126	4.433	0.06667
7-day minimum	4.337	0.4147	0	6.169	4.324	0.3959	0	6.169	3.809	4.677	0.06667
30-day minimum	4.73	0.2386	1.537	6.387	4.53	0.2392	1.537	6.387	4.231	4.952	0.06667
90-day minimum	5.163	0.245	1.893	7.222	5.043	0.233	1.893	7.111	4.664	5.46	0.06667
1-day maximum	324.1	0.5227	39.16	527	323.8	0.6543	33.1	527	267	356.2	-0.25
3-day maximum	313.7	0.4678	38.1	512.4	313.7	0.7036	30.1	512.4	259.5	346.7	-0.2667
7-day maximum	270.9	0.5467	34.76	499.2	252.8	0.8309	27.6	499.2	234.5	327.1	-0.2
30-day maximum	208.7	0.7317	24.44	423.3	155.5	0.9542	24.2	423.3	141.4	237.6	0.06667
90-day maximum	100.5	0.7491	21.22	235.4	78.76	0.8144	16.99	227.4	71.71	115.8	0
Number of zero days	0	0	0	9	0	0	0	15	0	0	-0.02326
Base flow index	0.1382	0.7051	0	0.4227	0.1595	0.8085	0	0.4823	0.113	0.1739	0.2
Parameter Group #3											
Date of minimum	66	0.3989	10	364	48	0.429	10	364	85.54	259.8	0
Date of maximum	169	0.03825	151	188	167	0.03279	144	190	165.2	173	0
Parameter Group #4											
Low pulse count	6	1.167	1	21	6	1.167	1	21	4	7.82	0.04545
Low pulse duration	3	2.083	1	155	3	2	1	155	2.09	6	0.125
High pulse count	4	0.5	1	11	4	0.75	1	11	3.18	5	-0.2381
High pulse duration	5	4.1	1	122	4.5	4.333	1	118	4	10.87	-0.125
The low pulse threshold is			6								
The high pulse threshold is			12.56								
Parameter Group #5											
Rise rate	0.535	0.5841	0.31	1.185	0.49	0.4286	0.3	1.12	0.46	0.6082	0.0625
Fall rate	-0.685	-0.4416	-1.04	-0.36	-0.6	-0.5125	-1	-0.355	-0.79	-0.5618	-0.25
Number of reversals	134	0.1642	87	162	137	0.146	95	171	129.2	145.8	0.06667

Assessment of Hydrologic Alteration

	Middle RVA Category			High RVA Category			Low RVA Category		
	Expected	Observed	Alter.	Expected	Observed	Alter.	Expected	Observed	Alter.
Parameter Group #1									
October	15	15	0	15	15	0	15	15	0
November	15	15	0	15	15	0	15	15	0
December	15	15	0	15	14	-0.06667	15	16	0.06667
January	15	17	0.1333	15	13	-0.1333	15	15	0
February	15	16	0.06667	15	13	-0.1333	15	16	0.06667
March	15	16	0.06667	15	14	-0.06667	15	15	0
April	15	15	0	15	15	0	15	15	0
May	15	15	0	15	15	0	15	15	0
June	15	16	0.06667	15	11	-0.2667	15	18	0.2
July	15	9	-0.4	15	10	-0.3333	15	26	0.7333
August	15	16	0.06667	15	14	-0.06667	15	15	0
September	15	16	0.06667	15	14	-0.06667	15	15	0
Parameter Group #2									
1-day minimum	15	16	0.06667	15	14	-0.06667	15	15	0
3-day minimum	15	16	0.06667	15	14	-0.06667	15	15	0
7-day minimum	15	16	0.06667	15	14	-0.06667	15	15	0
30-day minimum	15	16	0.06667	15	14	-0.06667	15	15	0
90-day minimum	15	16	0.06667	15	13	-0.1333	15	16	0.06667
1-day maximum	16	12	-0.25	15	15	0	14	18	0.2857
3-day maximum	15	11	-0.2667	15	14	-0.06667	15	20	0.3333
7-day maximum	15	12	-0.2	15	13	-0.1333	15	20	0.3333
30-day maximum	15	16	0.06667	15	11	-0.2667	15	18	0.2
90-day maximum	15	15	0	15	9	-0.4	15	21	0.4
Number of zero days	43	42	-0.02326	2	3	0.5	0	0	
Base flow index	15	18	0.2	15	17	0.1333	15	10	-0.3333
Parameter Group #3									
Date of minimum	15	15	0	15	15	0	15	15	0
Date of maximum	17	17	0	13	9	-0.3077	15	19	0.2667
Parameter Group #4									
Low pulse count	22	23	0.04545	15	15	0	8	7	-0.125
Low pulse duration	16	18	0.125	14	14	0	15	13	-0.1333
High pulse count	21	16	-0.2381	9	12	0.3333	15	17	0.1333
High pulse duration	16	14	-0.125	15	14	-0.06667	14	17	0.2143
Parameter Group #5									
Rise rate	16	17	0.0625	15	11	-0.2667	14	17	0.2143
Fall rate	16	12	-0.25	15	21	0.4	14	12	-0.1429
Number of reversals	15	16	0.06667	15	18	0.2	15	11	-0.2667

Non-Parametric IHA Scorecard								
Williams Fork R. abv Darling Ck Gage (Node 3600)								
Pre-impact period: Current Conditions (1947-1991)				Post-impact period: Full Use (1947-1991)				
NormalizationFactor	1			1				
Mean annual flow	30.34			29.11				
Non-Normalized Mean Fl	30.34			29.11				
Annual C. V.	2.09			2.16				
Flow predictability	0.61			0.61				
Constancy/predictability	0.55			0.56				
% of floods in 60d period	0.4			0.4				
Flood-free season	88			88				
	MEDIANS		COEFF. of DISP.		DEVIATION FACTOR		SIGNIFICANCE COUNT	
	Pre	Post	Pre	Post	Medians	C.D.	Medians	C.D.
Parameter Group #1								
October	7.53	7.53	0.3699	0.3699	0	0	0.999	1
November	6.8	6.8	0.3566	0.3382	0	0.05155	0.999	0.8008
December	5.95	5.91	0.4017	0.3782	0.006723	0.05852	0.8589	0.8488
January	5.58	5.58	0.3136	0.276	0	0.12	0.998	0.7237
February	5	5	0.2855	0.2855	0	0	1	1
March	4.96	4.96	0.2661	0.2661	0	0	0.955	1
April	6.885	6.885	0.4949	0.4949	0	0	0.997	1
May	26.01	26.01	0.5463	0.5463	0	0	0.998	1
June	178.8	178.8	0.932	0.9353	0	0.003496	0.998	0.992
July	47	29.39	1.388	2.508	0.3747	0.8077	0.04805	0.08308
August	14.22	13.36	0.5408	0.5644	0.06048	0.04361	0.7417	0.8949
September	9.07	8.935	0.5317	0.5495	0.01488	0.03353	0.8639	0.8408
Parameter Group #2								
1-day minimum	3.71	3.71	0.6307	0.6307	0	0	0.999	1
3-day minimum	4.223	4.223	0.438	0.438	0	0	0.999	1
7-day minimum	4.337	4.337	0.4147	0.4147	0	0	0.998	1
30-day minimum	4.73	4.639	0.2386	0.2432	0.01924	0.01961	0.8488	0.9189
90-day minimum	5.163	5.163	0.245	0.245	0	0	0.997	1
1-day maximum	324.1	324.1	0.5227	0.5227	0	0	0.998	1
3-day maximum	313.7	313.7	0.4678	0.4687	6.382E-05	0.002074	0.998	0.998
7-day maximum	270.9	268.9	0.5467	0.529	0.007424	0.03235	0.965	0.972
30-day maximum	208.7	200.9	0.7317	0.7455	0.03732	0.01882	0.7297	0.962
90-day maximum	100.5	90.48	0.7491	0.8442	0.09999	0.127	0.4134	0.6567
Number of zero days	0	0	0	0				
Base flow index	0.1382	0.1443	0.7051	0.8818	0.04448	0.2506	0.5996	0.5255
Parameter Group #3								
Date of minimum	66	66	0.3989	0.3989	0	0	0.952	0.997
Date of maximum	169	168	0.03825	0.03552	0.005464	0.07143	0.6106	0.7798
Parameter Group #4								
Low pulse count	6	6	1.167	1.167	0	0	0.9339	0.979
Low pulse duration	3	3	2.083	2.083	0	0	0.5656	0.994
High pulse count	4	4	0.5	0.75	0	0.5	0.0991	0.1822
High pulse duration	5	4.5	4.1	4.333	0.1	0.05691	0.8018	0.956
Low Pulse Threshold	6							
High Pulse Threshold	12.56							
Parameter Group #5								
Rise rate	0.535	0.5	0.5841	0.49	0.06542	0.1611	0.5586	0.6847
Fall rate	-0.685	-0.61	-0.4416	-0.5041	0.1095	0.1415	0.3914	0.5345
Number of reversals	134	135	0.1642	0.1667	0.007463	0.01515	0.8829	0.9089
EFC Low flows								
October Low Flow	7.32	7.34	0.305	0.3236	0.002732	0.06093	0.959	0.8519
November Low Flow	6.73	6.72	0.3377	0.3227	0.001486	0.04423	0.9479	0.8348
December Low Flow	5.91	5.89	0.3849	0.3523	0.003384	0.08481	0.8519	0.8048
January Low Flow	5.58	5.58	0.3118	0.276	0	0.1149	0.998	0.7337
February Low Flow	5	5	0.2855	0.2855	0	0	1	1
March Low Flow	4.96	4.96	0.2661	0.2661	0	0	0.955	1
April Low Flow	6.075	6.075	0.4374	0.4374	0	0	0.997	1
May Low Flow	13.01	13.01	0.4539	0.4539	0	0	0.995	1
June Low Flow	9.51	12.75	0.5941	0.5698	0.3402	0.04087	0.1371	0.8048
July Low Flow	14.28	14.73	0.3521	0.2607	0.03151	0.2595	0.7698	0.5455
August Low Flow	12	12.24	0.4325	0.404	0.02	0.06589	0.8218	0.8318
September Low Flow	8.51	8.503	0.5589	0.562	0.0008813	0.005617	1	0.982
EFC Parameters								
High flow peak	15.97	16.29	0.4551	0.4995	0.02004	0.09772	0.8218	0.6066
High flow duration	4.5	4.5	0.6111	0.7222	0	0.1818	0.6086	0.5986
High flow timing	212	203	0.276	0.1981	0.04918	0.2822	0.7237	0.5836
High flow frequency	5	5	1	1	0	0	0.5285	0.8909
High flow rise rate	2.81	2.7	0.3958	0.5258	0.03915	0.3287	0.5536	0.3624
High flow fall rate	-1.567	-1.655	-0.7108	-0.7333	0.05638	0.03173	0.8288	0.8929
Small Flood peak	362.5	362.4	0.171	0.1708	5.523E-05	0.001075	0.971	0.988
Small Flood duration	87	87	0.2529	0.3563	0	0.4091	0.955	0.2312
Small Flood timing	170	170	0.01913	0.01913	0	0	0.9049	0.9429
Small Flood freq.	0	0	0	0				
Small Flood riserate	9.588	9.588	0.294	0.294	0	0.0002219	0.959	0.998
Small Flood fallrate	-6.748	-7.098	-0.3706	-0.3993	0.05186	0.07727	0.6567	0.9059
Large flood peak	503.5	503.5	0.07905	0.07905	0	0	0.9209	0.8689
Large flood duration	88.5	88	0.3079	0.3068	0.00565	0.003545	0.951	0.9049
Large flood timing	177	177	0.03074	0.03074	0	0	0.5045	0.7437
Large flood freq.	0	0	0	0				
Large flood riserate	12.74	12.74	0.2985	0.2985	0	0	0.9209	0.8689
Large flood fallrate	-10.3	-10.37	-0.767	-0.7588	0.006544	0.01074	0.9049	0.9029
EFC low flow threshold:		7.8						
EFC high flow threshold:		18.97						
EFC small flood minimum peak flow:		324.1						
EFC large flood minimum peak flow:		464.6						

Appendix H-14
Peak Flows

IHA Non-Parametric RVA Scorecard											
Williams Fork R. abv Darling Ck Gage (Node 3600)											
											Hydrologic
	Pre-impact period: Current Conditions				Post-impact period: Full Use						Alteration
		Coeff. of				Coeff. of			RVA Boundaries		(Middle
	Medians	Dispersion	Minimum	Maximum	Medians	Dispersion	Minimum	Maximum	Low	High	Category)
Parameter Group #1											
October	7.53	0.3699	3.9	29.72	7.53	0.3699	3.9	22.15	6.795	8.664	0
November	6.8	0.3566	2.42	20.5	6.8	0.3382	2.42	20.05	6.055	7.518	0
December	5.95	0.4017	3.03	13.82	5.91	0.3782	3.03	12.96	5.459	6.598	0
January	5.58	0.3136	2.46	11.9	5.58	0.276	2.46	11.9	4.904	5.816	0.06667
February	5	0.2855	1.71	9.05	5	0.2855	1.71	9.05	4.492	5.308	0
March	4.96	0.2661	1.44	7.02	4.96	0.2661	1.44	7.02	4.675	5.398	0
April	6.885	0.4949	2.39	14.04	6.885	0.4949	2.39	14.04	5.52	7.976	0
May	26.01	0.5463	9.66	112.8	26.01	0.5463	9.66	93.82	22.77	32.93	0
June	178.8	0.932	19.35	355	178.8	0.9353	18.31	355	95.22	217.8	-0.1333
July	47	1.388	17.88	308	29.39	2.508	8.89	308	41.14	64.85	-0.6667
August	14.22	0.5408	5.77	86	13.36	0.5644	5.72	77	12.35	16.98	0.06667
September	9.07	0.5317	4.85	26.01	8.935	0.5495	4.58	23.77	7.742	10.63	0.06667
Parameter Group #2											
1-day minimum	3.71	0.6307	0	5.88	3.71	0.6307	0	5.88	2.716	4.267	0
3-day minimum	4.223	0.438	0	6.133	4.223	0.438	0	6.133	3.126	4.433	0
7-day minimum	4.337	0.4147	0	6.169	4.337	0.4147	0	6.169	3.809	4.677	0
30-day minimum	4.73	0.2386	1.537	6.387	4.639	0.2432	1.537	6.387	4.231	4.952	0
90-day minimum	5.163	0.245	1.893	7.222	5.163	0.245	1.893	7.111	4.664	5.46	0
1-day maximum	324.1	0.5227	39.16	527	324.1	0.5227	33.1	527	267	356.2	0
3-day maximum	313.7	0.4678	38.1	512.4	313.7	0.4687	30.1	512.4	259.5	346.7	-0.06667
7-day maximum	270.9	0.5467	34.76	499.2	268.9	0.529	27.6	499.2	234.5	327.1	0
30-day maximum	208.7	0.7317	24.44	423.3	200.9	0.7455	24.2	423.3	141.4	237.6	0
90-day maximum	100.5	0.7491	21.22	235.4	90.48	0.8442	16.99	232.9	71.71	115.8	0
Number of zero days	0	0	0	9	0	0	0	9	0	0	0
Base flow index	0.1382	0.7051	0	0.4227	0.1443	0.8818	0	0.4823	0.113	0.1739	-0.06667
Parameter Group #3											
Date of minimum	66	0.3989	10	364	66	0.3989	10	364	85.54	259.8	0
Date of maximum	169	0.03825	151	188	168	0.03552	144	185	165.2	173	0
Parameter Group #4											
Low pulse count	6	1.167	1	21	6	1.167	1	21	4	7.82	0.04545
Low pulse duration	3	2.083	1	155	3	2.083	1	155	2.09	6	0.125
High pulse count	4	0.5	1	11	4	0.75	1	11	3.18	5	-0.2857
High pulse duration	5	4.1	1	122	4.5	4.333	1	118	4	10.87	-0.0625
The low pulse threshold is			6								
The high pulse threshold is			12.56								
Parameter Group #5											
Rise rate	0.535	0.5841	0.31	1.185	0.5	0.49	0.3	1.09	0.46	0.6082	-0.0625
Fall rate	-0.685	-0.4416	-1.04	-0.36	-0.61	-0.5041	-1.01	-0.35	-0.79	-0.5618	-0.25
Number of reversals	134	0.1642	87	162	135	0.1667	99	168	129.2	145.8	0.06667
Assessment of Hydrologic Alteration											
	Middle RVA Category			High RVA Category			Low RVA Category				
	Expected	Observed	Alter.	Expected	Observed	Alter.	Expected	Observed	Alter.		
Parameter Group #1											
October	15	15	0	15	15	0	15	15	0		
November	15	15	0	15	15	0	15	15	0		
December	15	15	0	15	14	-0.06667	15	16	0.06667		
January	15	16	0.06667	15	14	-0.06667	15	15	0		
February	15	15	0	15	15	0	15	15	0		
March	15	15	0	15	15	0	15	15	0		
April	15	15	0	15	15	0	15	15	0		
May	15	15	0	15	15	0	15	15	0		
June	15	13	-0.1333	15	16	0.06667	15	16	0.06667		
July	15	5	-0.6667	15	13	-0.1333	15	27	0.8		
August	15	16	0.06667	15	14	-0.06667	15	15	0		
September	15	16	0.06667	15	14	-0.06667	15	15	0		
Parameter Group #2											
1-day minimum	15	15	0	15	15	0	15	15	0		
3-day minimum	15	15	0	15	15	0	15	15	0		
7-day minimum	15	15	0	15	15	0	15	15	0		
30-day minimum	15	15	0	15	15	0	15	15	0		
90-day minimum	15	15	0	15	15	0	15	15	0		
1-day maximum	16	16	0	15	15	0	14	14	0		
3-day maximum	15	14	-0.06667	15	15	0	15	16	0.06667		
7-day maximum	15	15	0	15	15	0	15	15	0		
30-day maximum	15	15	0	15	15	0	15	15	0		
90-day maximum	15	15	0	15	13	-0.1333	15	17	0.1333		
Number of zero days	43	43	0	2	2	0	0	0			
Base flow index	15	14	-0.06667	15	16	0.06667	15	15	0		
Parameter Group #3											
Date of minimum	15	15	0	15	15	0	15	15	0		
Date of maximum	17	17	0	13	11	-0.1538	15	17	0.1333		
Parameter Group #4											
Low pulse count	22	23	0.04545	15	15	0	8	7	-0.125		
Low pulse duration	16	18	0.125	14	14	0	15	13	-0.1333		
High pulse count	21	15	-0.2857	9	13	0.4444	15	17	0.1333		
High pulse duration	16	15	-0.0625	15	14	-0.06667	14	16	0.1429		
Parameter Group #5											
Rise rate	16	15	-0.0625	15	13	-0.1333	14	17	0.2143		
Fall rate	16	12	-0.25	15	20	0.3333	14	13	-0.07143		
Number of reversals	15	16	0.06667	15	16	0.06667	15	13	-0.1333		

Appendix H-15
Dry Year Frequency and Duration

- Table H-15.1 Fraser River at Winter Park Gage – Comparison of Total Annual Flow and Frequency of Dry Years (AF)
- Table H-15.2 Jim Creek below Denver Water's Diversion – Comparison of Total Annual Flow and Frequency of Dry Years (AF)
- Table H-15.3 Vasquez Creek Gage – Comparison of Total Annual Flow and Frequency of Dry Years (AF)
- Table H-15.4 Ranch Creek below Denver Water's Diversion – Comparison of Total Annual Flow and Frequency of Dry Years (AF)
- Table H-15.5 St. Louis Creek near Fraser Gage – Comparison of Total Annual Flow and Frequency of Dry Years (AF)
- Table H-15.6 Fraser River below Crooked Creek – Comparison of Total Annual Flow and Frequency of Dry Years (AF)
- Table H-15.7 Steelman Creek below Denver Water's Diversion – Comparison of Total Annual Flow and Frequency of Dry Years (AF)
- Table H-15.8 Williams Fork River below Steelman Creek Gage – Comparison of Total Annual Flow and Frequency of Dry Years (AF)
- Table H-15.9 Colorado River below Windy Gap – Comparison of Total Annual Flow and Frequency of Dry Years (AF)
- Table H-15.10 Blue River below Dillon Reservoir – Comparison of Total Annual Flow and Frequency of Dry Years (AF)

Note: Highlighted cells represent years where the value is less than or equal to the 25^{th} Percentile.

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Table H-15.1. Fraser River at Winter Park Gage Comparison of Total Annual Flow and Frequency of Dry Years (AF)

Year	Current Conditions	Full Use	No Action	Alt 1a	Alt 1c	Alt 8a	Alt 10a	Alt 13a
1947	13,648	12,834	12,662	7,516	7,146	7,774	7,751	7,529
1948	10,057	8,773	7,856	5,267	5,365	5,266	5,266	5,266
1949	10,532	8,686	7,628	5,888	6,027	5,890	5,890	5,889
1950	4,508	4,507	4,507	4,507	4,507	4,507	4,507	4,507
1951	4,993	4,952	4,952	4,952	4,952	4,952	4,952	4,952
1952	11,775	12,024	10,535	5,326	5,415	5,243	5,260	5,298
1953	4,491	4,491	4,491	4,491	4,491	4,491	4,491	4,491
1954	4,224	3,837	3,837	3,837	3,837	3,837	3,837	3,837
1955	3,398	2,980	2,980	2,980	2,980	2,980	2,980	2,980
1956	3,746	3,255	3,255	3,255	3,255	3,255	3,255	3,255
1957	20,783	19,417	18,018	4,824	4,824	5,729	5,735	4,824
1958	15,366	13,558	13,017	9,545	9,576	10,136	10,070	10,070
1959	4,444	4,443	4,443	4,443	4,443	4,443	4,443	4,443
1960	8,234	6,862	5,983	6,085	6,179	5,955	5,955	5,954
1961	5,675	4,993	4,789	4,520	4,520	4,520	4,520	4,520
1962	5,676	5,106	5,074	4,919	4,944	4,871	4,873	4,860
1963	4,424	3,780	3,780	3,780	3,780	3,780	3,780	3,780
1964	3,613	3,349	3,349	3,349	3,349	3,349	3,349	3,349
1965	7,564	6,413	5,489	4,363	4,363	4,363	4,363	4,363
1966	5,309	4,778	5,058	4,473	4,473	4,473	4,473	4,473
1967	6,696	4,937	4,604	4,451	4,451	4,451	4,451	4,451
1968	4,386	4,386	4,386	4,386	4,386	4,386	4,386	4,386
1969	15,696	14,725	13,004	11,011	10,876	11,011	11,010	11,009
1970	15,279	14,715	11,807	9,691	10,127	9,760	9,679	9,724
1971	6,999	6,367	5,510	5,119	5,093	5,140	5,145	5,106
1972	4,693	4,690	4,690	4,690	4,690	4,690	4,690	4,690
1973	12,731	11,449	9,341	7,858	7,961	7,993	8,036	7,943
1974	4,918	4,775	4,774	4,774	4,774	4,774	4,774	4,774
1975	4,768	4,603	4,506	4,779	4,709	4,784	4,786	4,823
1976	4,420	4,419	4,419	4,419	4,419	4,419	4,419	4,419
1977	4,456	4,455	4,455	4,455	4,455	4,455	4,455	4,455
1978	4,340	4,064	4,064	4,064	4,064	4,064	4,064	4,064
1979	10,582	10,986	10,269	4,041	4,041	6,173	6,186	4,885
1980	12,770	11,830	10,651	7,739	8,092	7,924	7,957	7,880
1981	4,461	4,460	4,460	4,460	4,460	4,460	4,460	4,460
1982	4,537	4,536	4,536	4,536	4,536	4,536	4,536	4,536
1983	26,586	24,751	24,167	21,819	22,011	21,993	21,994	21,987
1984	29,469	27,534	26,323	23,393	23,466	23,423	23,423	23,410
1985	11,757	12,362	11,415	7,030	7,325	7,141	7,113	7,088
1986	8,936	7,290	6,555	6,060	6,402	6,071	6,070	6,039
1987	10,521	10,160	9,514	6,316	6,338	6,316	6,316	6,315
1988	6,081	6,316	5,426	5,207	5,024	5,209	5,209	5,207
1989	4,592	4,591	4,591	4,591	4,591	4,591	4,591	4,591
1990	4,465	4,465	4,465	4,465	4,465	4,465	4,465	4,465
1991	7,213	6,771	5,640	4,684	5,157	4,697	4,674	4,678
# years less than or equal to 25th Percentile	**12**	**12**	**12**	**15**	**15**	**14**	**14**	**14**
Current Conditions 25th Percentile Flow		**4,465**						

Appendix H-15
Dry Year Frequency and Duration

Table H-15.2 Jim Creek below Denver Water's Diversion Comparison of Total Annual Flow and Frequency of Dry Years (AF)

Year	Current Conditions	Full Use	No Action	Alt 1a	Alt 1c	Alt 8a	Alt 10a	Alt 13a
1947	1,896	1,448	1,388	265	185	262	262	270
1948	5	5	5	5	5	5	5	5
1949	549	312	165	111	161	112	112	111
1950	13	13	13	13	13	13	13	13
1951	134	135	135	135	135	135	135	135
1952	1,484	1,574	1,078	335	335	335	335	335
1953	1	1	1	1	1	1	1	1
1954	19	21	21	21	21	21	21	21
1955	1	1	1	1	1	1	1	1
1956	43	43	43	43	43	43	43	43
1957	2,330	2,310	2,019	682	682	682	682	682
1958	2,699	2,033	1,854	914	905	1,051	1,051	1,051
1959	0	0	0	0	0	0	0	0
1960	364	271	88	76	192	75	74	71
1961	123	83	83	4	4	4	4	4
1962	105	56	38	0	0	0	0	0
1963	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0
1965	535	448	448	448	448	448	448	448
1966	488	217	375	0	0	0	0	0
1967	356	7	0	0	0	0	0	0
1968	4	5	5	5	5	5	5	5
1969	2,527	2,163	1,659	1,319	1,370	1,315	1,314	1,315
1970	2,485	2,200	1,383	1,008	1,287	1,032	987	1,032
1971	390	344	258	258	258	258	258	258
1972	89	89	89	89	89	89	89	89
1973	1,935	1,782	798	843	802	847	848	846
1974	78	90	90	90	90	90	90	90
1975	3	3	3	3	3	3	3	4
1976	0	0	0	0	0	0	0	0
1977	6	6	6	6	6	6	6	6
1978	160	160	160	160	160	160	160	160
1979	1,443	1,720	1,454	0	0	209	225	99
1980	1,615	1,243	834	184	596	206	204	202
1981	132	138	138	138	138	138	138	138
1982	127	129	129	129	129	129	129	129
1983	5,052	4,688	4,474	3,790	3,905	3,896	3,896	3,893
1984	5,674	5,146	4,777	3,914	4,059	3,925	3,925	3,918
1985	1,543	1,746	1,538	414	529	414	414	414
1986	882	409	190	253	323	246	245	288
1987	1,296	1,039	838	107	114	107	107	107
1988	165	187	137	137	137	138	138	137
1989	0	0	0	0	0	0	0	0
1990	0	1	1	1	1	1	1	1
1991	417	392	168	4	87	4	4	4
# years less than or equal to 25th Percentile	**12**	**12**	**13**	**18**	**17**	**17**	**17**	**17**
Current Conditions 25th Percentile Flow		**6**						

Table H-15.3 Vasquez Creek Gage
Comparison of Total Annual Flow and Frequency of Dry Years (AF)

Year	Current Conditions	Full Use	No Action	Alt 1a	Alt 1c	Alt 8a	Alt 10a	Alt 13a
1947	17,977	15,033	14,799	11,010	10,718	11,169	11,169	10,876
1948	15,850	11,836	10,352	7,089	7,300	7,163	7,160	7,147
1949	13,829	10,487	9,349	7,365	7,579	7,451	7,450	7,457
1950	6,231	3,284	3,284	3,284	3,284	3,284	3,284	3,284
1951	8,042	5,036	4,926	4,926	4,926	4,926	4,926	4,926
1952	17,039	13,625	13,092	9,175	9,495	9,233	9,206	9,326
1953	5,836	2,864	2,864	2,864	2,864	2,864	2,864	2,864
1954	4,057	1,085	1,085	1,085	1,085	1,085	1,085	1,085
1955	4,091	1,178	1,178	1,178	1,178	1,178	1,178	1,178
1956	5,847	3,186	3,186	3,186	3,186	3,186	3,186	3,186
1957	29,578	24,728	23,622	3,168	3,106	10,104	10,112	6,650
1958	14,320	10,649	10,107	6,802	6,782	7,139	7,169	7,135
1959	4,513	1,575	1,575	1,575	1,575	1,575	1,575	1,575
1960	12,367	7,800	6,920	6,804	6,805	6,882	6,923	6,913
1961	6,330	3,036	1,988	1,594	1,594	1,594	1,594	1,594
1962	11,273	6,711	6,459	5,474	5,782	5,401	5,468	5,507
1963	4,351	1,087	1,087	1,087	1,087	1,087	1,087	1,087
1964	3,687	1,056	1,056	1,056	1,056	1,056	1,056	1,056
1965	14,876	12,165	10,055	2,266	2,266	3,564	3,504	2,266
1966	5,328	1,874	2,194	1,743	1,743	1,743	1,743	1,743
1967	9,242	4,585	3,712	2,645	2,645	2,645	2,645	2,645
1968	4,802	1,976	1,976	1,976	1,976	1,976	1,976	1,976
1969	15,820	12,565	11,335	9,622	9,797	9,633	9,634	9,628
1970	16,882	14,510	13,808	10,694	10,691	10,858	10,783	10,707
1971	15,908	12,458	11,434	6,990	7,527	7,340	7,341	7,154
1972	5,016	2,286	2,286	2,286	2,286	2,286	2,286	2,286
1973	14,492	9,978	8,478	7,224	7,229	7,238	7,238	7,229
1974	7,379	4,695	3,926	2,832	2,832	2,832	2,832	2,832
1975	6,003	3,420	2,858	3,093	3,144	2,999	2,996	3,083
1976	3,885	1,606	1,606	1,606	1,606	1,606	1,606	1,606
1977	4,226	1,920	1,920	1,920	1,920	1,920	1,920	1,920
1978	4,243	1,659	1,659	1,659	1,659	1,659	1,659	1,659
1979	10,527	7,615	8,270	2,152	1,811	5,091	5,091	3,330
1980	14,598	11,262	10,706	8,519	8,410	8,580	8,587	8,585
1981	4,374	1,767	1,767	1,767	1,767	1,767	1,767	1,767
1982	6,725	3,522	3,372	3,372	3,372	3,372	3,372	3,372
1983	31,893	28,202	27,639	25,128	24,930	25,276	25,230	25,136
1984	29,374	24,808	23,752	21,563	22,106	21,573	21,573	21,569
1985	15,582	11,723	10,942	6,414	6,589	6,414	6,414	6,414
1986	9,554	6,121	5,560	4,521	4,594	4,502	4,503	4,362
1987	9,526	7,286	6,719	3,992	4,033	3,992	3,992	3,992
1988	8,676	6,955	5,745	4,196	4,498	4,200	4,200	4,175
1989	4,536	2,208	1,859	1,859	1,859	1,859	1,859	1,859
1990	4,728	1,999	1,999	1,999	1,999	1,999	1,999	1,999
1991	7,215	4,239	3,542	2,400	2,625	2,521	2,610	2,397
# years less than or equal to 25th Percentile	**12**	**23**	**23**	**29**	**29**	**27**	**27**	**28**
Current Conditions 25th Percentile Flow		**4,802**						

Appendix H-15
Dry Year Frequency and Duration

Table H-15.4 Ranch Creek below Denver Water's Diversion Comparison of Total Annual Flow and Frequency of Dry Years (AF)

Year	Current Conditions	Full Use	No Action	Alt 1a	Alt 1c	Alt 8a	Alt 10a	Alt 13a
1947	3,472	3,553	3,458	2,987	3,000	2,989	2,989	2,986
1948	3,234	3,149	2,972	2,154	2,169	2,154	2,154	2,154
1949	4,146	4,128	4,033	3,542	3,541	3,542	3,542	3,542
1950	1,522	1,522	1,522	1,522	1,522	1,522	1,522	1,522
1951	2,607	2,315	2,131	2,131	2,131	2,131	2,131	2,131
1952	4,788	4,849	4,739	4,705	4,682	4,709	4,709	4,681
1953	1,580	1,614	1,585	1,585	1,585	1,585	1,585	1,585
1954	1,132	1,075	1,075	1,075	1,075	1,075	1,075	1,075
1955	1,076	932	932	932	932	932	932	932
1956	1,154	1,080	1,080	1,080	1,080	1,080	1,080	1,080
1957	5,517	5,408	5,395	3,778	3,767	4,428	4,488	4,019
1958	3,514	3,383	3,383	3,173	3,186	3,173	3,173	3,173
1959	1,647	1,383	1,383	1,383	1,383	1,383	1,383	1,383
1960	3,617	3,728	3,366	2,831	2,831	2,888	2,891	2,834
1961	1,710	1,610	1,450	1,166	1,166	1,166	1,166	1,166
1962	3,919	3,524	3,533	3,065	3,118	3,100	3,103	3,106
1963	1,392	1,201	1,201	1,201	1,201	1,201	1,201	1,201
1964	1,146	1,066	1,066	1,066	1,066	1,066	1,066	1,066
1965	3,929	3,940	3,657	2,549	2,549	2,869	2,846	2,549
1966	1,456	1,451	1,435	1,433	1,433	1,433	1,433	1,433
1967	2,165	2,021	1,857	1,352	1,352	1,356	1,361	1,352
1968	1,382	1,382	1,382	1,382	1,382	1,382	1,382	1,382
1969	3,979	3,941	3,786	3,356	3,363	3,416	3,416	3,416
1970	3,648	3,880	3,724	3,063	3,056	3,063	3,063	3,050
1971	4,383	4,251	4,082	3,342	3,317	3,328	3,328	3,327
1972	1,705	1,705	1,705	1,705	1,705	1,705	1,705	1,705
1973	4,059	3,951	3,769	3,627	3,653	3,627	3,627	3,627
1974	2,953	2,972	2,802	2,117	2,207	2,118	2,086	2,120
1975	2,087	2,027	2,013	1,786	1,828	1,801	1,800	1,783
1976	1,315	1,315	1,315	1,315	1,315	1,315	1,315	1,315
1977	1,203	1,203	1,203	1,203	1,203	1,203	1,203	1,203
1978	2,143	1,931	1,931	1,931	1,931	1,931	1,931	1,931
1979	3,245	3,330	3,299	1,693	1,612	2,558	2,558	2,137
1980	3,602	3,678	3,566	3,099	3,130	3,099	3,099	3,099
1981	1,446	1,446	1,446	1,446	1,446	1,446	1,446	1,446
1982	2,427	2,153	2,008	1,882	1,882	1,882	1,882	1,882
1983	6,941	6,917	6,858	6,369	6,373	6,374	6,374	6,374
1984	6,945	6,816	6,736	6,518	6,494	6,518	6,518	6,518
1985	3,526	3,407	3,345	2,892	2,895	2,892	2,892	2,892
1986	2,840	2,757	2,677	2,373	2,431	2,413	2,357	2,422
1987	3,267	3,262	3,248	2,766	2,778	2,775	2,764	2,777
1988	3,481	3,624	3,481	3,167	3,269	3,227	3,220	3,227
1989	1,835	1,873	1,808	1,808	1,808	1,808	1,808	1,808
1990	1,677	1,684	1,677	1,677	1,677	1,677	1,677	1,677
1991	3,051	3,008	2,941	2,593	2,591	2,594	2,594	2,593
# years less than or equal to 25th Percentile	**12**	**12**	**13**	**14**	**14**	**14**	**14**	**14**
Current Conditions 25th Percentile Flow		**1,580**						

Table H-15.5 St. Louis Creek near Fraser Gage Comparison of Total Annual Flow and Frequency of Dry Years (AF)

Year	Current Conditions	Full Use	No Action	Alt 1a	Alt 1c	Alt 8a	Alt 10a	Alt 13a
1947	26,142	26,104	25,674	22,751	22,490	22,753	22,752	22,732
1948	20,563	20,085	19,465	16,703	16,677	16,704	16,704	16,703
1949	21,616	21,197	20,390	18,685	18,521	18,713	18,714	18,678
1950	14,265	14,265	14,265	14,265	14,265	14,265	14,265	14,265
1951	20,846	19,466	19,024	19,024	19,024	19,024	19,024	19,024
1952	27,029	26,982	26,619	24,941	25,040	25,208	25,205	24,954
1953	14,667	14,699	14,667	14,667	14,667	14,667	14,667	14,667
1954	9,192	8,885	8,885	8,885	8,885	8,885	8,885	8,885
1955	10,952	10,568	10,568	10,568	10,568	10,568	10,568	10,568
1956	9,615	8,786	8,786	8,786	8,786	8,786	8,786	8,786
1957	31,215	30,462	30,051	19,578	19,448	23,544	23,621	21,728
1958	21,966	21,279	20,887	18,646	18,604	18,841	18,700	18,749
1959	10,437	9,237	9,237	9,237	9,237	9,237	9,237	9,237
1960	18,119	18,000	17,017	16,460	16,430	16,513	16,468	16,489
1961	10,533	10,274	9,443	8,534	8,534	8,534	8,534	8,534
1962	27,457	25,570	25,288	23,025	23,644	23,395	23,230	23,358
1963	6,271	5,776	5,776	5,776	5,776	5,776	5,776	5,776
1964	6,838	6,430	6,430	6,430	6,430	6,430	6,430	6,430
1965	19,362	19,304	17,754	9,413	9,413	11,362	11,206	9,413
1966	7,671	7,436	7,523	7,280	7,280	7,280	7,280	7,280
1967	12,236	10,870	10,168	8,093	8,093	8,093	8,112	8,093
1968	5,405	5,405	5,405	5,405	5,405	5,405	5,405	5,405
1969	18,704	18,419	17,560	16,263	16,258	16,282	16,356	16,272
1970	20,960	21,923	20,996	17,603	17,483	17,617	17,603	17,370
1971	23,240	22,206	21,309	16,951	17,184	17,038	17,149	17,179
1972	7,209	7,209	7,209	7,209	7,209	7,209	7,209	7,209
1973	19,785	19,312	18,451	17,436	17,166	17,443	17,443	17,446
1974	14,091	14,153	13,349	8,756	8,985	8,764	8,764	8,764
1975	11,672	11,280	11,362	10,239	10,154	10,238	10,237	10,236
1976	6,862	6,862	6,862	6,862	6,862	6,862	6,862	6,862
1977	6,544	6,544	6,544	6,544	6,544	6,544	6,544	6,544
1978	10,758	9,711	9,711	9,711	9,711	9,711	9,711	9,711
1979	15,303	14,910	14,914	10,047	9,763	12,431	12,431	11,058
1980	16,370	15,981	15,899	14,311	14,479	14,337	14,389	14,387
1981	6,444	6,451	6,451	6,451	6,451	6,451	6,451	6,451
1982	12,290	10,406	9,791	9,568	9,568	9,568	9,568	9,568
1983	34,903	34,434	33,136	31,978	32,065	32,227	32,227	32,027
1984	35,382	34,033	33,349	30,934	30,894	31,021	30,979	30,966
1985	20,667	19,855	19,283	15,855	15,743	15,864	15,864	15,849
1986	17,515	16,130	15,385	14,413	14,453	14,543	14,541	14,550
1987	13,110	13,202	12,826	10,802	10,895	10,805	10,804	10,804
1988	12,881	14,050	13,001	10,953	11,269	10,953	10,953	11,148
1989	7,150	7,453	6,849	6,849	6,849	6,849	6,849	6,849
1990	6,641	6,642	6,642	6,642	6,642	6,642	6,642	6,642
1991	13,299	12,956	12,029	10,288	10,345	10,287	10,282	10,336
# years less than or equal to 25th Percentile	**12**	**13**	**14**	**18**	**18**	**17**	**17**	**18**
Current Conditions 25th Percentile Flow		**9,615**						

Appendix H-15
Dry Year Frequency and Duration

Table H-15.6 Fraser River below Crooked Creek Comparison of Total Annual Flow and Frequency of Dry Years (AF)

Year	Current Conditions	Full Use	No Action	Alt 1a	Alt 1c	Alt 8a	Alt 10a	Alt 13a
1947	106,869	105,542	104,176	89,838	88,816	90,265	90,241	89,647
1948	88,718	84,446	80,670	68,480	68,861	68,547	68,553	68,552
1949	99,392	95,589	91,794	84,229	84,435	84,370	84,370	84,337
1950	46,669	45,843	45,811	45,811	45,811	45,811	45,811	45,811
1951	86,783	82,843	81,309	81,309	81,309	81,309	81,309	81,309
1952	144,641	143,538	140,778	128,952	129,427	129,225	129,217	129,115
1953	57,085	56,703	56,246	56,246	56,246	56,246	56,246	56,247
1954	34,079	32,302	32,298	32,298	32,298	32,298	32,298	32,298
1955	42,103	40,175	40,180	40,180	40,180	40,180	40,180	40,180
1956	65,064	62,721	62,721	62,721	62,721	62,721	62,721	62,721
1957	193,176	187,395	184,127	130,719	130,394	146,565	146,867	138,395
1958	108,856	103,529	101,975	91,549	91,488	92,689	92,500	92,510
1959	58,898	55,425	55,238	55,238	55,238	55,236	55,234	55,237
1960	103,609	99,981	95,406	93,305	93,368	93,434	93,438	93,373
1961	54,299	51,416	48,523	45,167	45,167	45,167	45,167	45,167
1962	131,242	123,277	122,644	116,679	117,917	117,075	116,994	117,177
1963	37,746	35,209	35,209	35,209	35,209	35,209	35,209	35,209
1964	41,950	40,423	40,423	40,423	40,423	40,423	40,423	40,423
1965	115,906	113,458	107,613	83,196	83,196	88,975	88,662	83,196
1966	44,763	41,399	42,139	40,245	40,245	40,245	40,245	40,245
1967	68,576	61,726	59,180	52,904	52,904	52,989	53,062	52,914
1968	46,574	45,741	45,741	45,741	45,741	45,741	45,741	45,741
1969	105,596	102,828	98,295	91,813	91,864	92,067	92,142	91,993
1970	126,346	127,263	122,039	110,575	110,845	110,828	110,653	110,253
1971	119,450	115,411	111,756	99,150	99,784	99,541	99,657	99,452
1972	50,779	49,963	49,963	49,963	49,963	49,963	49,963	49,963
1973	109,244	103,877	98,148	93,623	93,688	93,780	93,824	93,724
1974	93,995	92,880	90,471	81,458	82,064	81,470	81,413	81,478
1975	63,444	61,660	60,945	59,492	59,558	59,410	59,406	59,477
1976	39,800	39,125	39,125	39,125	39,125	39,125	39,125	39,125
1977	34,104	33,456	33,456	33,456	33,456	33,456	33,456	33,456
1978	72,789	69,305	69,305	69,305	69,305	69,305	69,305	69,305
1979	90,557	89,480	89,298	65,056	63,948	76,136	76,155	69,785
1980	105,174	102,569	100,306	91,284	91,841	91,558	91,650	91,569
1981	34,549	33,709	33,709	33,709	33,709	33,709	33,709	33,709
1982	67,377	62,720	61,059	59,909	59,909	59,909	59,909	59,909
1983	206,015	201,391	198,256	189,634	189,758	190,382	190,337	189,995
1984	210,804	203,351	199,377	190,558	191,007	190,691	190,649	190,616
1985	111,277	106,628	102,910	86,933	87,360	87,014	86,964	86,972
1986	104,268	98,920	96,247	92,653	93,276	92,788	92,715	92,706
1987	70,511	69,602	67,701	57,046	57,309	57,069	57,057	57,120
1988	78,593	80,802	76,848	71,531	72,449	71,676	71,640	71,931
1989	41,126	41,280	39,787	39,787	39,787	39,787	39,787	39,787
1990	45,355	44,676	44,607	44,607	44,607	44,607	44,607	44,607
1991	70,934	68,748	65,478	60,334	61,060	60,455	60,510	60,324
# years less than or equal to 25th Percentile	**12**	**12**	**12**	**13**	**13**	**13**	**13**	**13**
Current Conditions 25th Percentile Flow		**46,669**						

Table H-15.7 Steelman Creek below Denver Water's Diversion Comparison of Total Annual Flow and Frequency of Dry Years (AF)

Year	Current Conditions	Full Use	No Action	Alt 1a	Alt 1c	Alt 8a	Alt 10a	Alt 13a
1947	3,164	3,199	3,059	2,841	2,839	2,842	2,842	2,841
1948	2,171	1,890	1,782	947	1,042	947	947	947
1949	2,833	2,787	2,787	2,292	2,302	2,292	2,292	2,292
1950	337	500	349	349	349	349	349	349
1951	2,347	1,845	1,451	1,451	1,451	1,451	1,451	1,451
1952	3,236	3,240	3,206	3,240	3,272	3,240	3,240	3,240
1953	652	860	646	646	646	646	646	646
1954	187	0	0	0	0	0	0	0
1955	314	0	0	0	0	0	0	0
1956	754	493	493	493	493	493	493	493
1957	4,355	4,237	4,166	2,529	2,495	3,736	3,736	3,130
1958	2,881	2,475	2,458	2,458	2,505	2,429	2,458	2,458
1959	1,857	1,048	1,041	1,041	1,041	1,041	1,041	1,041
1960	2,676	2,631	2,382	1,805	1,733	1,806	1,806	1,806
1961	1,391	944	633	0	0	0	0	0
1962	3,724	3,261	3,249	2,622	2,635	2,635	2,635	2,635
1963	425	146	146	146	146	146	146	146
1964	286	0	0	0	0	0	0	0
1965	3,717	3,654	3,327	1,272	1,272	1,889	1,889	1,272
1966	678	162	206	36	36	36	36	36
1967	1,787	1,389	1,059	0	0	113	135	15
1968	436	418	418	418	418	418	418	418
1969	2,802	2,721	2,602	2,547	2,485	2,555	2,555	2,555
1970	3,282	3,360	3,324	2,511	2,545	2,506	2,511	2,511
1971	3,928	3,793	3,628	2,979	2,933	2,916	2,916	2,910
1972	1,165	833	833	833	833	833	833	833
1973	3,747	3,650	3,521	3,403	3,417	3,403	3,403	3,403
1974	1,952	1,979	1,589	1,117	1,268	1,140	1,191	1,193
1975	1,382	1,403	1,338	1,042	1,154	1,042	1,052	1,078
1976	24	1	1	1	1	1	1	1
1977	442	94	94	94	94	94	94	94
1978	2,429	1,677	1,677	1,677	1,677	1,677	1,677	1,677
1979	2,059	2,085	2,015	445	344	1,439	1,499	1,005
1980	2,693	2,508	2,465	2,171	2,265	2,177	2,205	2,205
1981	602	106	106	106	106	106	106	106
1982	2,388	1,858	1,517	919	919	919	919	919
1983	5,075	5,048	4,944	4,753	4,765	4,753	4,753	4,753
1984	6,490	6,232	6,113	6,003	6,039	6,005	6,005	6,004
1985	3,457	3,177	2,946	1,682	1,709	1,680	1,671	1,680
1986	2,370	2,166	1,972	1,764	1,745	1,725	1,725	1,714
1987	2,102	1,831	1,785	1,394	1,412	1,394	1,394	1,394
1988	1,997	1,745	1,647	1,440	1,416	1,441	1,441	1,440
1989	548	191	6	6	6	6	6	6
1990	545	205	184	184	184	184	184	184
1991	2,086	1,651	1,628	1,275	1,253	1,268	1,287	1,255
# years less than or equal to 25th Percentile	**12**	**13**	**15**	**17**	**17**	**16**	**16**	**16**
Current Conditions 25th Percentile Flow		**652**						

Table H-15.8 Williams Fork River below Steelman Creek Gage Comparison of Total Annual Flow and Frequency of Dry Years (AF)

Year	Current Conditions	Full Use	No Action	Alt 1a	Alt 1c	Alt 8a	Alt 10a	Alt 13a
1947	15,119	15,327	14,703	13,518	13,552	13,511	13,512	13,523
1948	9,962	9,081	8,621	4,774	5,130	4,774	4,774	4,774
1949	13,500	13,308	13,175	10,899	10,967	10,897	10,896	10,915
1950	2,335	2,642	2,359	2,359	2,359	2,359	2,359	2,359
1951	10,556	8,474	6,969	6,969	6,969	6,969	6,969	6,969
1952	15,339	15,315	15,122	15,051	15,136	15,061	15,057	15,073
1953	3,347	4,157	3,325	3,325	3,325	3,325	3,325	3,325
1954	1,210	398	398	398	398	398	398	398
1955	1,761	559	559	559	559	559	559	559
1956	3,861	2,745	2,745	2,745	2,745	2,745	2,745	2,745
1957	20,075	19,632	19,376	11,824	11,647	17,043	17,078	14,398
1958	13,046	11,431	11,353	11,349	11,586	11,312	11,350	11,343
1959	7,709	4,503	4,480	4,480	4,480	4,480	4,480	4,480
1960	12,488	12,131	11,279	9,059	8,849	9,150	9,150	9,148
1961	6,719	4,857	3,580	1,093	1,093	1,093	1,093	1,093
1962	17,074	15,173	15,171	12,875	12,933	12,955	12,985	12,972
1963	2,030	1,040	1,040	1,040	1,040	1,040	1,040	1,040
1964	2,041	923	923	923	923	923	923	923
1965	17,212	16,875	15,460	6,833	6,833	9,251	9,251	6,833
1966	3,782	1,503	1,585	1,104	1,104	1,104	1,104	1,104
1967	8,004	6,376	5,248	1,265	1,265	1,573	1,677	1,296
1968	2,705	2,602	2,602	2,602	2,602	2,602	2,602	2,602
1969	13,296	13,102	12,324	11,524	11,458	11,715	11,715	11,713
1970	14,090	14,518	14,182	11,320	11,501	11,305	11,329	11,312
1971	16,921	16,198	15,678	13,310	13,102	13,164	13,164	13,137
1972	4,824	3,807	3,807	3,807	3,807	3,807	3,807	3,807
1973	15,223	14,888	14,474	13,997	14,065	14,001	14,001	13,990
1974	9,011	9,263	7,863	5,429	6,036	5,497	5,596	5,609
1975	6,997	6,864	6,614	5,389	5,869	5,370	5,419	5,403
1976	1,268	1,198	1,198	1,198	1,198	1,198	1,198	1,198
1977	2,511	1,266	1,266	1,266	1,266	1,266	1,266	1,266
1978	10,784	7,961	7,961	7,961	7,961	7,961	7,961	7,961
1979	10,210	10,525	10,216	2,924	2,588	7,435	7,693	5,295
1980	12,636	11,902	11,694	10,166	10,290	10,200	10,229	10,226
1981	3,405	1,248	1,248	1,248	1,248	1,248	1,248	1,248
1982	9,200	7,362	6,062	4,275	4,275	4,275	4,275	4,275
1983	23,980	23,715	23,025	22,174	22,244	22,174	22,174	22,174
1984	26,576	25,645	25,254	24,634	24,629	24,640	24,640	24,637
1985	13,522	12,448	11,763	8,017	8,094	8,006	7,958	8,006
1986	12,941	12,185	11,405	10,184	10,131	9,969	9,968	10,099
1987	9,750	8,545	8,400	6,761	6,818	6,762	6,738	6,761
1988	9,972	9,502	8,945	7,389	7,424	7,382	7,394	7,451
1989	3,135	1,844	1,166	1,166	1,166	1,166	1,166	1,166
1990	3,374	1,940	1,839	1,839	1,839	1,839	1,839	1,839
1991	8,506	7,089	6,939	5,224	5,197	5,224	5,236	5,255
# years less than or equal to 25th Percentile	**12**	**13**	**14**	**17**	**17**	**16**	**16**	**16**
Current Conditions 25th Percentile Flow		**3,405**						

Table H-15.9 Colorado River below Windy Gap Comparison of Total Annual Flow and Frequency of Dry Years (AF)

Year	Current Conditions	Full Use	No Action	Alt 1a	Alt 1c	Alt 8a	Alt 10a	Alt 13a
1947	139,936	85,707	84,326	73,867	73,110	74,356	74,332	73,813
1948	94,299	91,092	90,150	84,889	84,889	84,889	84,889	84,908
1949	163,975	159,707	151,201	126,552	126,875	128,473	128,411	127,246
1950	71,679	67,637	69,116	69,229	69,229	69,229	69,229	69,229
1951	117,404	83,459	83,593	83,593	83,593	83,596	83,596	83,596
1952	343,692	275,643	269,696	257,797	258,272	258,067	258,059	257,956
1953	90,975	77,695	77,660	77,886	78,020	77,887	77,885	78,034
1954	64,341	63,503	63,479	63,479	63,479	63,479	63,479	63,479
1955	68,835	68,396	68,412	68,412	68,412	68,412	68,412	68,412
1956	86,470	73,095	73,095	73,095	73,095	73,095	73,095	73,095
1957	302,382	191,594	188,373	142,297	141,977	150,899	151,207	145,607
1958	162,318	161,510	159,957	145,900	145,837	150,645	150,456	148,534
1959	76,209	78,028	78,098	78,023	78,023	78,041	78,040	78,042
1960	102,670	81,417	81,506	79,079	79,113	79,032	79,032	79,026
1961	82,307	81,791	81,801	81,327	81,327	81,330	81,330	81,329
1962	377,747	338,970	330,613	318,670	319,933	322,656	322,574	321,824
1963	74,950	74,148	74,148	74,148	74,148	74,148	74,148	74,148
1964	68,876	69,066	69,066	69,066	69,066	69,066	69,066	69,066
1965	132,372	87,713	87,080	85,758	85,759	85,967	85,966	85,758
1966	83,300	76,305	76,633	74,738	74,737	74,737	74,737	74,737
1967	91,755	78,313	80,779	80,639	80,637	80,681	80,681	80,667
1968	77,394	76,540	76,695	76,697	76,697	76,697	76,697	76,697
1969	103,149	81,868	81,108	79,373	79,270	79,258	79,286	79,286
1970	259,237	198,617	187,586	165,514	165,814	167,172	166,942	165,251
1971	328,562	295,203	284,305	250,591	251,349	255,112	255,111	251,094
1972	107,968	90,906	90,907	90,905	90,905	90,905	90,905	90,906
1973	257,856	216,454	210,750	206,224	206,289	206,381	206,424	206,325
1974	198,861	162,856	160,443	151,431	152,042	151,442	151,386	151,451
1975	88,107	69,650	69,705	69,706	69,705	69,706	69,706	69,716
1976	77,197	75,494	75,494	75,493	75,493	75,493	75,493	75,493
1977	71,720	72,368	72,402	72,402	72,402	72,402	72,402	72,402
1978	93,982	82,109	82,116	82,201	82,201	82,201	82,201	82,201
1979	170,127	98,929	97,956	83,681	83,711	85,622	85,536	83,905
1980	150,496	144,191	142,439	128,679	128,415	133,180	133,289	130,991
1981	66,585	68,136	68,136	68,135	68,123	68,136	68,136	68,136
1982	84,449	69,763	69,824	69,735	69,735	69,756	69,756	69,735
1983	369,775	339,609	335,048	320,547	320,398	325,826	325,865	323,206
1984	608,605	571,308	567,337	558,514	558,963	558,647	558,605	558,572
1985	241,321	212,158	208,441	192,463	192,890	192,544	192,494	192,502
1986	376,550	347,098	344,424	340,830	341,453	340,965	340,892	340,883
1987	112,680	84,017	83,661	83,667	83,888	83,686	83,680	83,706
1988	124,050	106,405	103,981	99,859	100,418	100,005	99,968	100,269
1989	74,801	70,611	69,722	69,734	69,734	69,733	69,733	69,733
1990	81,582	82,082	82,013	82,012	82,012	82,012	82,012	82,012
1991	82,958	79,747	77,874	77,777	77,718	77,769	77,770	77,659
# years less than or equal to 25th Percentile	**12**	**19**	**20**	**22**	**22**	**22**	**22**	**22**
Current Conditions 25th Percentile Flow		**81,582**						

Appendix H-15
Dry Year Frequency and Duration

Table H-15.10 Blue River below Dillon Reservoir Comparison of Total Annual Flow and Frequency of Dry Years (AF)

Year	Current Conditions	Full Use	No Action	Alt 1a	Alt 1c	Alt 8a	Alt 10a	Alt 13a
1947	201,418	165,614	148,355	160,762	160,503	161,333	161,456	161,399
1948	202,032	182,720	177,942	187,391	187,116	187,368	187,379	187,677
1949	147,795	107,283	93,126	103,900	103,712	103,549	103,395	103,127
1950	109,226	69,180	58,082	67,102	66,827	67,196	67,101	66,588
1951	166,054	116,862	96,172	90,165	89,753	91,998	91,734	91,295
1952	180,696	144,034	134,367	144,659	144,200	145,833	145,816	145,342
1953	124,158	79,206	64,144	61,193	60,356	61,250	61,215	60,651
1954	45,859	36,318	36,318	36,318	36,318	36,318	36,318	36,318
1955	64,018	57,717	57,347	57,347	57,347	57,347	57,347	57,347
1956	48,549	46,044	45,900	45,900	45,900	45,900	45,900	45,900
1957	118,662	65,763	38,207	66,582	66,338	67,559	67,459	67,864
1958	157,267	156,150	142,951	162,539	162,408	162,420	162,523	162,406
1959	92,475	53,324	41,535	43,051	42,662	43,009	43,167	42,636
1960	120,892	90,079	79,699	79,141	78,490	79,195	79,288	78,968
1961	70,849	36,198	36,198	36,198	36,198	36,198	36,198	36,198
1962	204,106	186,071	170,717	170,461	169,019	172,063	171,360	171,678
1963	50,499	36,248	36,248	36,248	36,248	36,248	36,248	36,248
1964	63,680	58,201	58,201	58,201	58,201	58,201	58,201	58,201
1965	113,446	78,016	50,275	74,968	73,534	75,441	75,222	75,305
1966	59,942	46,226	42,307	45,166	45,061	45,737	45,736	45,758
1967	55,323	36,199	36,199	36,199	36,199	36,199	36,199	36,199
1968	101,580	53,703	37,695	37,695	37,695	37,695	37,695	37,695
1969	105,458	79,941	52,599	64,853	64,042	72,178	71,622	70,978
1970	226,707	205,289	197,369	203,894	203,204	203,855	203,947	204,652
1971	186,129	154,513	146,110	155,760	154,694	155,286	155,292	155,134
1972	130,483	93,590	81,402	74,760	74,204	74,456	74,451	74,320
1973	111,604	80,489	69,658	80,785	80,655	80,812	80,804	80,659
1974	152,895	126,133	114,974	121,229	120,840	121,522	121,210	120,476
1975	103,100	59,816	48,728	52,760	51,823	52,949	52,639	52,542
1976	62,697	36,352	36,352	36,352	36,352	36,352	36,352	36,352
1977	48,781	39,007	39,146	39,771	39,522	39,771	39,771	39,771
1978	60,653	41,757	41,630	41,988	41,861	41,988	41,988	41,988
1979	115,278	43,128	36,207	36,207	36,207	36,207	36,207	36,207
1980	158,436	136,879	108,584	135,160	134,887	136,086	136,200	135,916
1981	41,549	36,134	36,134	36,134	36,134	36,134	36,134	36,134
1982	89,103	36,199	36,199	36,199	36,199	36,199	36,199	36,199
1983	246,138	228,882	193,691	203,307	201,608	210,694	210,925	207,214
1984	352,875	341,665	335,698	348,026	347,970	347,972	347,990	348,031
1985	200,304	192,966	188,463	196,604	196,525	196,593	196,564	196,533
1986	201,322	167,821	154,318	162,457	161,766	162,483	162,504	162,179
1987	135,346	96,117	86,755	95,255	94,648	95,183	95,236	94,594
1988	124,551	91,296	79,391	80,895	80,259	80,971	80,988	81,693
1989	70,245	37,664	36,049	36,049	36,049	36,049	36,049	36,049
1990	69,678	42,123	38,602	37,610	37,610	37,610	37,610	37,407
1991	105,937	81,275	51,915	57,540	55,814	57,553	57,308	58,694
# years less than or equal to 25th Percentile	**12**	**21**	**26**	**24**	**24**	**23**	**23**	**23**
Current Conditions 25th Percentile Flow		**69,678**						

Appendix H-16
Basin Maps

Figure 1 Fraser River Watershed Map with Assessment Locations
Figure 2 Williams Fork River Watershed Map with Assessment Locations
Figure 3 Colorado River Watershed Map with Assessment Locations
Figure 4 Blue River Watershed Map with Assessment Locations
Figure 5 North Fork South Platte Watershed Map with Assessment Locations
Figure 6 South Boulder Creek Watershed Map with Assessment Locations

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Figure 1: Fraser River Watershed Map with Assessment Locations

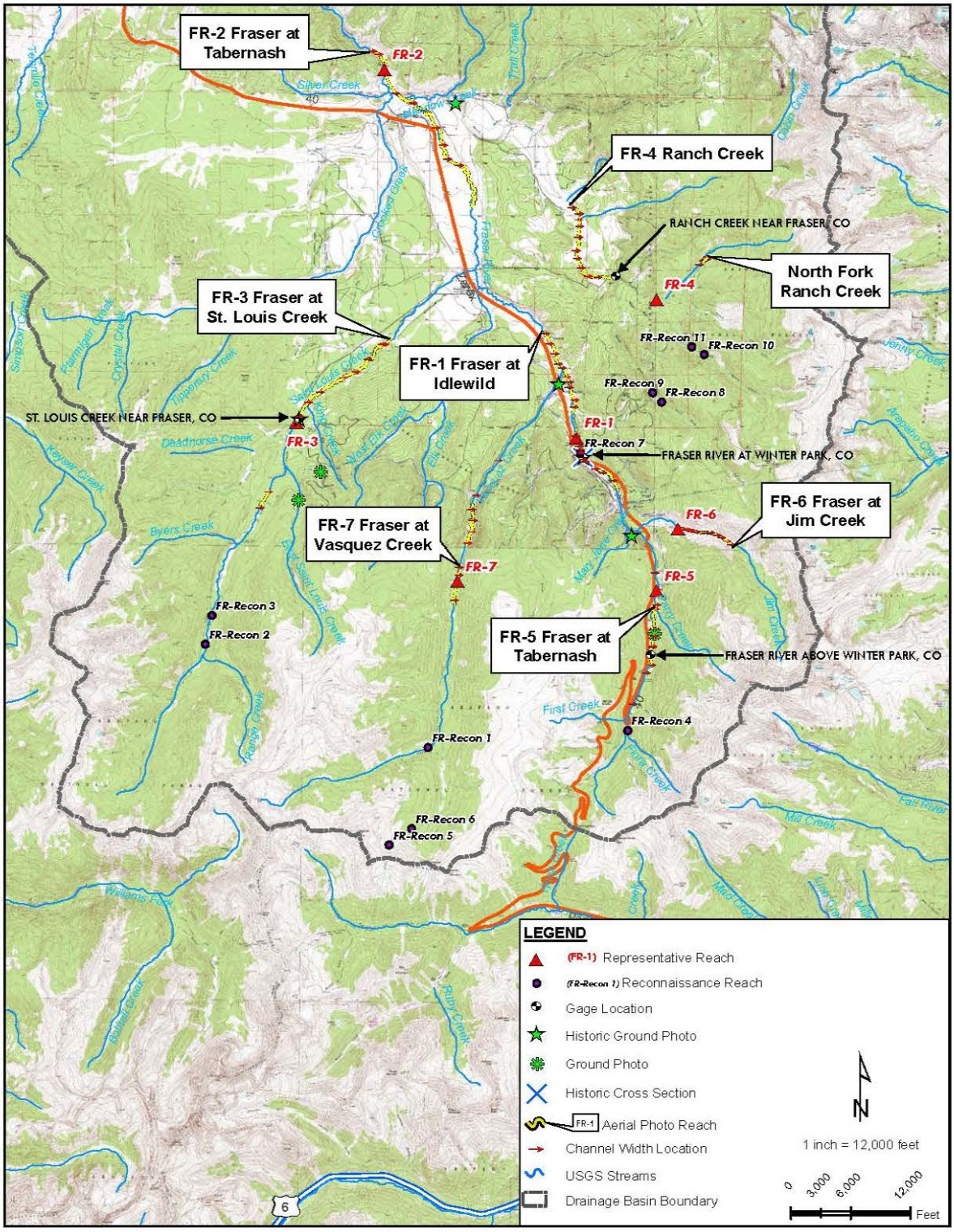


Figure 2: Williams Fork River Watershed Map with Assessment Locations

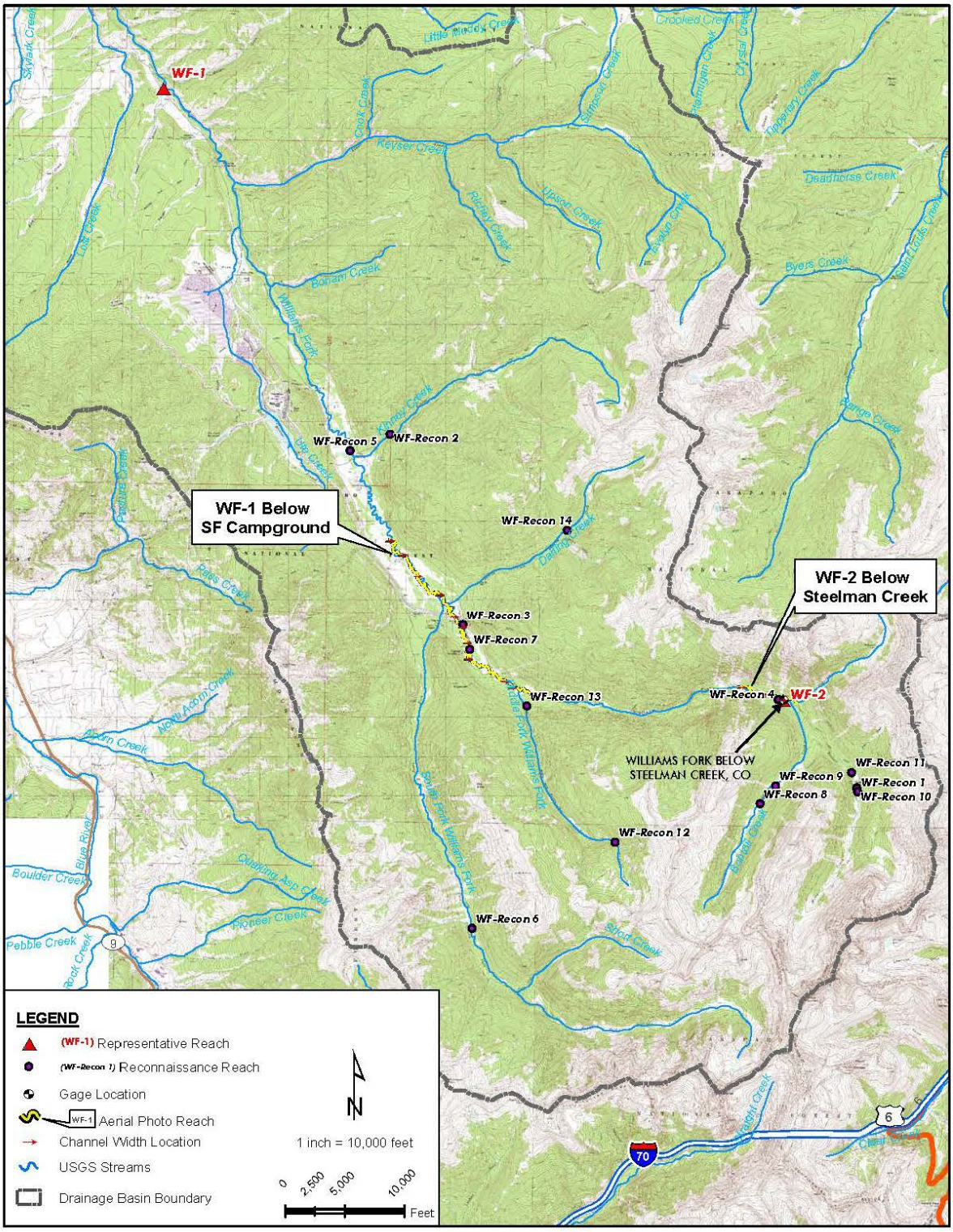


Figure 3: Colorado River Watershed Map with Assessment Locations

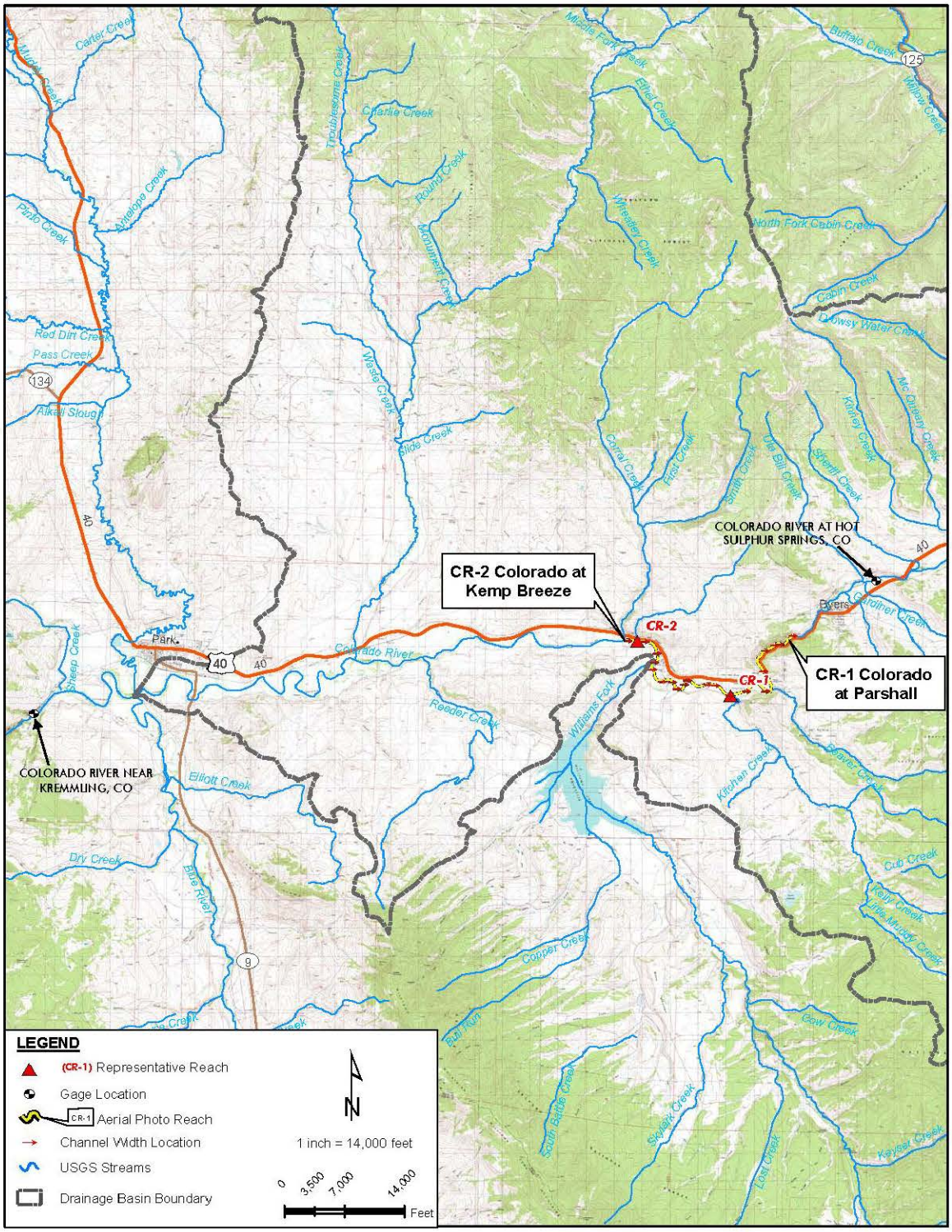


Figure 4: Blue River Watershed Map with Assessment Locations

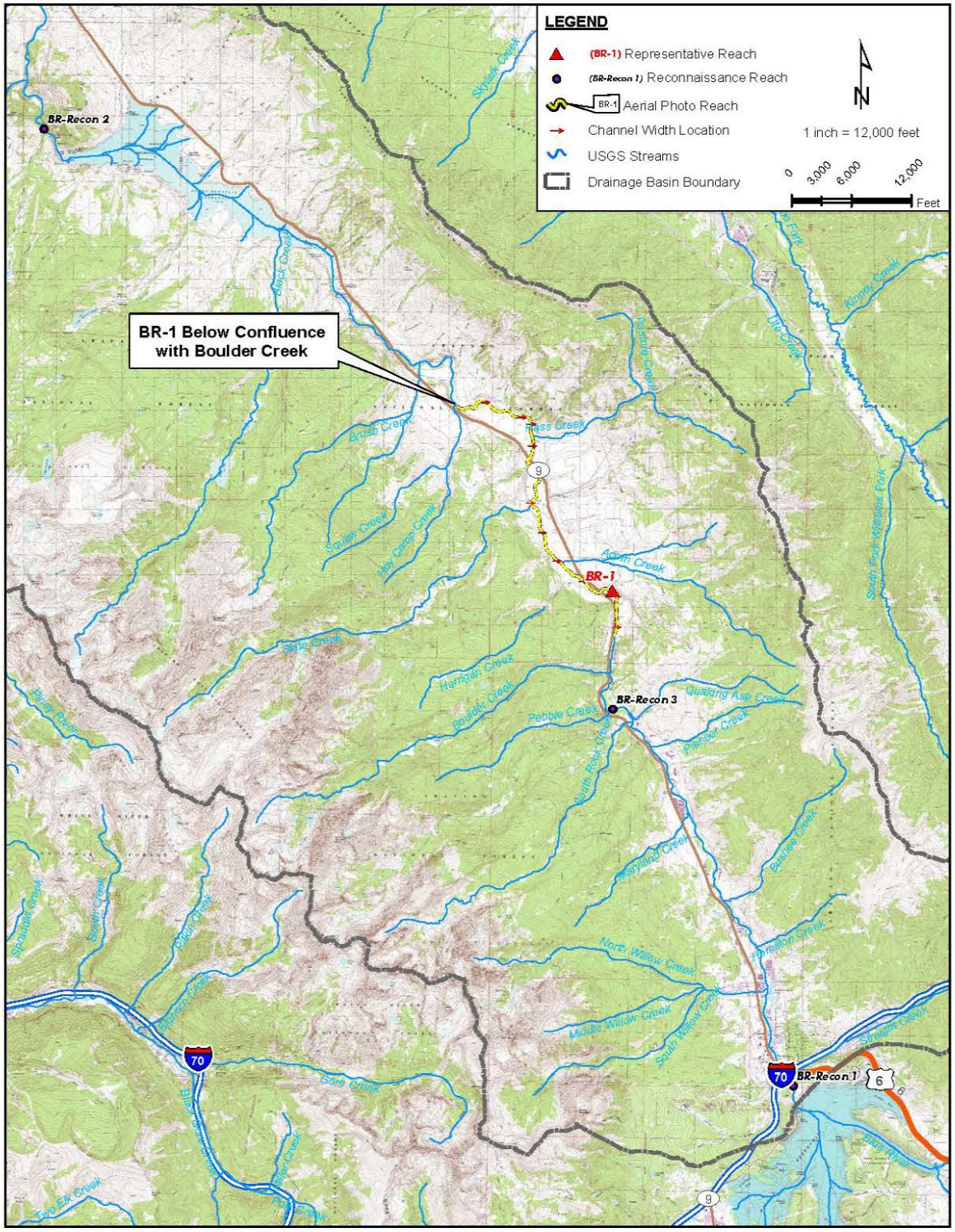


Figure 5: North Fork South Platte Watershed Map with Assessment Locations

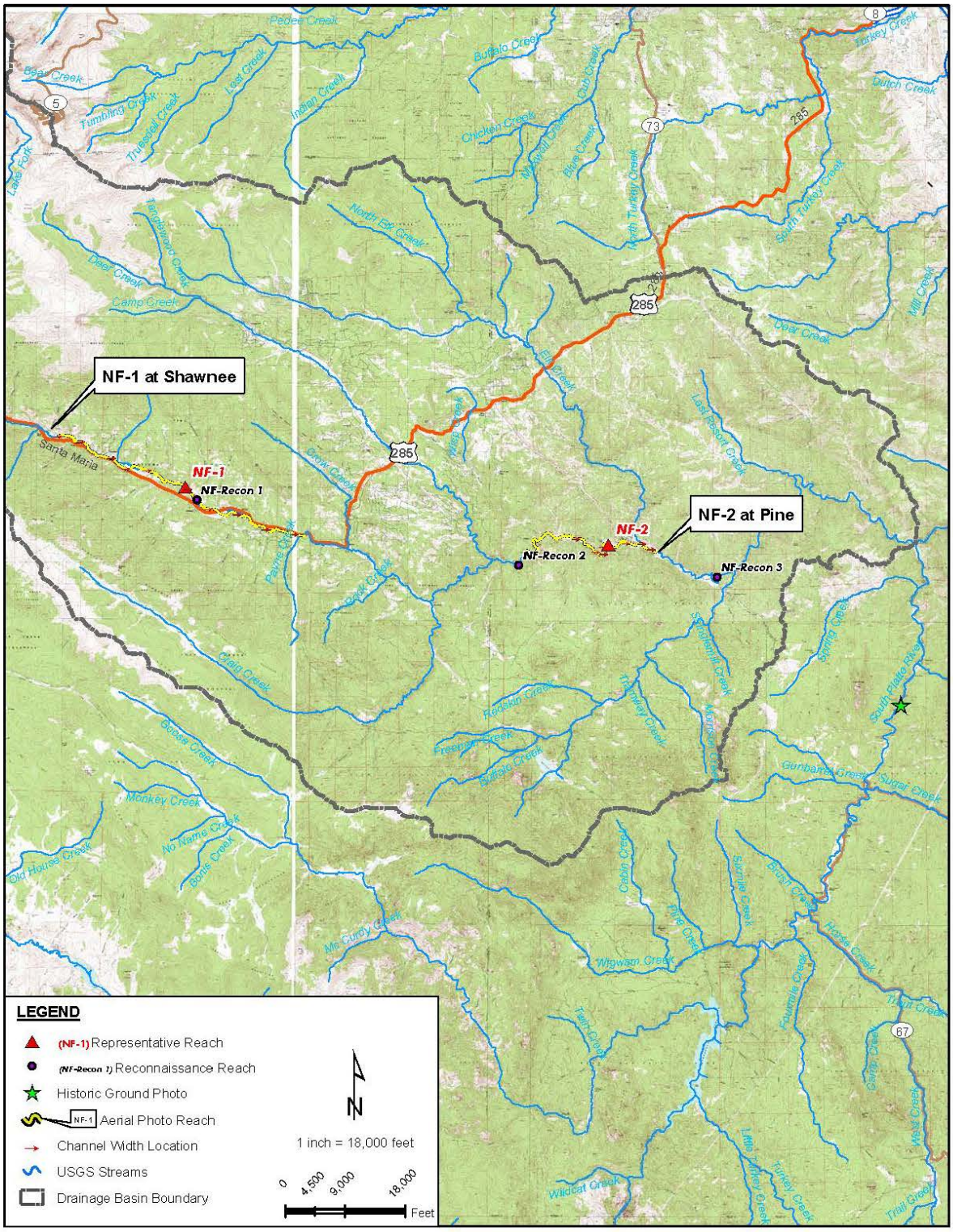
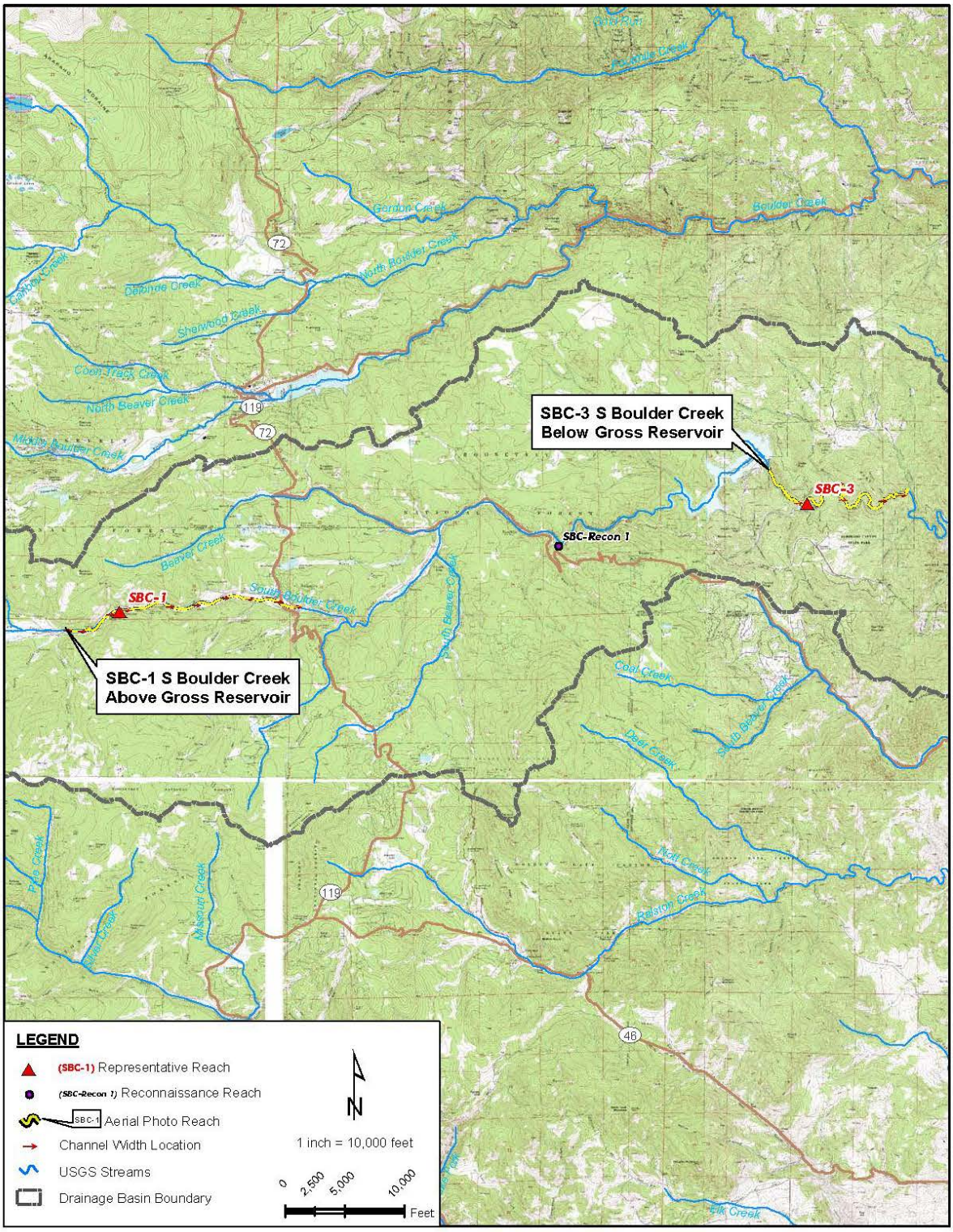


Figure 6: South Boulder Creek Watershed Map with Assessment Locations



Appendix H-17
Aerial Photo Results

- Table H-17.1 Sinuosity above DW Diversions (Control Segments)
- Table H-17.2 Sinuosity below DW Diversions where Flows have been Decreased
- Table H-17.3 Sinuosity below DW Facilities where Flows have been Increased
- Table H-17.4 Changes in Channel Width above DW Diversions (Control Segments)
- Table H-17.5 Changes in Channel Width below DW Diversions where Flows have been Decreased
- Table H-17.6 Changes in Channel Width below DW Facilities where Flows have been Increased

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Table H-17.1. Sinuosity above DW Diversions (Control Segments)

FR5: Fraser River Downstream of Denver Water's Diversion (south segment located directly above DW diversion)			
Date	Valley CL Length (ft)	Water CL Length (ft)	Water Length / Valley Length
1985	6112	7497	1.23
2009	6112	7804	1.28
FR6: Jim Creek			
Date	Valley CL Length (ft)	Water CL Length (ft)	Water Length / Valley Length
1985	6128	6946	1.13
2009	6128	7044	1.15
FR4: Ranch Creek (east segment)			
Date	Valley CL Length (ft)	Water CL Length (ft)	Water Length / Valley Length
1962	698	839	1.20
2009	698	860	1.23

Table H-17.2. Sinuosity below DW Diversions where Flows have been Decreased

CR1: Colorado River above Parshall			
Date	Valley CL Length (ft)	Water CL Length (ft)	Water Length / Valley Length
1962	18424	20729	1.13
2009	18424	20643	1.12
CR2: Colorado River at Kemp Breeze State Wildlife Area			
Date	Valley CL Length (ft)	Water CL Length (ft)	Water Length / Valley Length
1983	9186	13804	1.50
2009	9186	13820	1.50
FR1: Fraser River near Winter Park Gage (north segment)			
Date	Valley CL Length (ft)	Water CL Length (ft)	Water Length / Valley Length
1962	8668	10318	1.19
2009	8668	10233	1.18
FR1: Fraser River near Winter Park Gage (south segment)			
Date	Valley CL Length (ft)	Water CL Length (ft)	Water Length / Valley Length
1962	7725	9064	1.17
2009	7725	9022	1.17
FR2: Fraser River Tabernash			
Date	Valley CL Length (ft)	Water CL Length (ft)	Water Length / Valley Length
1962	19367	26512	1.37
2009	19367	25986	1.34
FR3: St. Louis Creek			
Date	Valley CL Length (ft)	Water CL Length (ft)	Water Length / Valley Length
1962	12595	15485	1.23
2009	12595	15646	1.24
FR4: Ranch Creek			
Date	Valley CL Length (ft)	Water CL Length (ft)	Water Length / Valley Length
1962	10274	13473	1.31
2009	10274	13025	1.27
FR5: Fraser River Downstream of Denver Water's Diversion (north segment)			
Date	Valley CL Length (ft)	Water CL Length (ft)	Water Length / Valley Length
1985	6112	7497	1.23
2009	6112	7804	1.28
FR7: Vasquez Creek (north segment)			
Date	Valley CL Length (ft)	Water CL Length (ft)	Water Length / Valley Length
1988	4235	7067	1.67
2009	4235	7116	1.68
WF1: Williams Fork near Sugarloaf Campground			
Date	Valley CL Length (ft)	Water CL Length (ft)	Water Length / Valley Length
1983	19257	27056	1.41
2009	19257	27167	1.41
WF2: Williams Fork below Steelman Creek			
Date	Valley CL Length (ft)	Water CL Length (ft)	Water Length / Valley Length
1985	5159	6051	1.17
2009	5159	5994	1.16
BR1: Blue River below Boulder Creek			
Date	Valley CL Length (ft)	Water CL Length (ft)	Water Length / Valley Length
1983	32886	36937	1.12
2009	32886	36856	1.12

Table H-17.3. Sinuosity below DW Facilities where Flows have been Increased

FR7: Vasquez Creek (south segment)				
Date	Valley CL Length (ft)	Water CL Length (ft)	Water Length / Valley Length	
1988	3986	5116		1.28
2009	3986	4875		1.22
NF1: North Fork South Platte near Shawnee				
Date	Valley CL Length (ft)	Water CL Length (ft)	Water Length / Valley Length	
1985	40374	45739		1.13
2009	40374	46058		1.14
NF2: North Fork South Platte near Pine				
Date	Valley CL Length (ft)	Water CL Length (ft)	Water Length / Valley Length	
1983	23101	30032		1.30
2009	23101	30013		1.30
SBC1: South Boulder Creek above Rollinsville				
Date	Valley CL Length (ft)	Water CL Length (ft)	Water Length / Valley Length	
1985	19924	21188		1.06
2009	19924	21288		1.07
SBC3: South Boulder Creek below Gross Reservoir				
Date	Valley CL Length (ft)	Water CL Length (ft)	Water Length / Valley Length	
1983	15071	20226		1.34
2009	15071	20609		1.37

Table H-17.4. Changes in Channel Width above DW Diversions (Control Segments)

FR5: Fraser River Downstream of Denver Water's Diversion (south segment located directly above DW diversion)			
Segment ID	1985	2009	
	Channel Width (ft)	Channel Width (ft)	Change in Width (ft)
1	30	24	-6
2	17	14	-3
3	16	14	-2
4	18	15	-3
Average	20	16	-4
FR6: Jim Creek			
Segment ID	1985	2009	
	Channel Width (ft)	Channel Width (ft)	Change in Width (ft)
1	19	18	-1
2	12	15	4
3	16	11	-5
4	10	14	4
5	14	16	2
Average	14	15	1
FR4: Ranch Creek (east segment)			
Segment ID	1962	2009	
	Channel Width (ft)	Channel Width (ft)	Change in Width (ft)
1	10	7	-3
2	7	7	0
3	11	13	1
4	9	13	3
5	9	7	-3
6	17	16	-1
Average	11	10	0

Table H-17.5. Changes in Channel Width below DW Diversions where Flows have been Decreased

CR1: Colorado River above Parshall			
Segment ID	1962	2009	
	Channel Width (ft)	Channel Width (ft)	Change in Width (ft)
1	97	97	0
2	101	104	3
3	104	90	-14
4	77	105	28
5	44	57	13
6	44	55	11
7	38	66	28
Average	72	82	10
CR2: Colorado River at Kemp Breeze State Wildlife Area			
Segment ID	1983	2009	
	Channel Width (ft)	Channel Width (ft)	Change in Width (ft)
1	120	131	11
2	128	138	10
3	163	159	-4
4	75	85	11
5	141	134	-8
6	92	110	18
7	103	100	-3
8	69	78	9
9	120	109	-11
10	66	77	10
Average	108	112	4
FR1: Fraser River near Winter Park Gage (north segment)			
Segment ID	1962	2009	
	Channel Width (ft)	Channel Width (ft)	Change in Width (ft)
1	14	16	2
2	27	26	-2
3	15	25	10
4	22	28	6
5	24	31	8
6	13	18	5
7	18	19	1
8	11	14	3
9	15	20	5
10	10	14	4
Average	17	21	4

Table H-17.5. Changes in Channel Width below DW Diversions where Flows have been Decreased (Continued)

FR1: Fraser River near Winter Park Gage (south segment)			
Segment ID	1962	2009	
	Channel Width (ft)	Channel Width (ft)	Change in Width (ft)
1	15	22	8
2	16	21	5
3	19	25	5
4	16	23	7
5	17	21	5
6	17	18	2
7	18	31	13
8	16	16	1
9	11	18	7
10	16	27	10
Average	16	22	6
FR2: Fraser River Tabernash			
Segment ID	1962	2009	
	Channel Width (ft)	Channel Width (ft)	Change in Width (ft)
1	49	62	14
2	37	49	11
3	32	49	17
4	21	32	11
5	35	34	-1
6	58	68	11
7	34	40	6
Average	38	48	10
FR3: St. Louis Creek			
Segment ID	1962	2009	
	Channel Width (ft)	Channel Width (ft)	Change in Width (ft)
1	25	40	15
2	19	28	9
3	20	26	6
4	26	35	9
5	29	32	3
6	28	33	5
Average	25	32	8
FR4: Ranch Creek			
Segment ID	1962	2009	
	Channel Width (ft)	Channel Width (ft)	Change in Width (ft)
1	25	25	1
2	14	22	8
3	21	18	-3
4	14	15	1
5	10	11	1
6	16	17	1
7	17	21	4
Average	17	19	2

Table H-17.5. Changes in Channel Width below DW Diversions where Flows have been Decreased (Continued)

FR5: Fraser River Downstream of Denver Water's Diversion (north segment)			
Segment ID	1985	2009	
	Channel Width (ft)	Channel Width (ft)	Change in Width (ft)
1	18	21	4
2	8	11	4
3	9	12	2
4	22	21	-1
Average	14	16	2
FR7: Vasquez Creek (north segment)			
Segment ID	1988	2009	
	Channel Width (ft)	Channel Width (ft)	Change in Width (ft)
1	11	17	6
2	23	21	-2
3	18	17	-2
4	24	25	1
5	18	21	3
6	20	20	-1
7	21	32	10
Average	19	22	2
WF1: Williams Fork near Sugarloaf Campground			
Segment ID	1983	2009	
	Channel Width (ft)	Channel Width (ft)	Change in Width (ft)
1	49	52	2
2	40	46	6
3	24	33	8
4	36	41	5
5	28	34	6
6	33	38	5
7	42	37	-5
Average	36	40	4
WF2: Williams Fork below Steelman Creek			
Segment ID	1985	2009	
	Channel Width (ft)	Channel Width (ft)	Change in Width (ft)
1	23	21	-1
2	32	34	2
3	38	28	-10
Average	31	28	-3

Table H-17.5. Changes in Channel Width below DW Diversions where Flows have been Decreased (Continued)

BR1: Blue River below Boulder Creek			
Segment ID	1983	2009	
	Channel Width (ft)	Channel Width (ft)	Change in Width (ft)
1	115	112	-3
2	116	123	7
3	109	104	-5
4	83	89	5
5	86	89	4
6	103	95	-8
7	80	85	5
8	78	90	11
9	76	86	11
10	62	63	1
11	74	68	-6
Average	89	91	2

Table H-17.6. Changes in Channel Width below DW Facilities where Flows have been Increased

FR7: Vasquez Creek (south segment)			
Segment ID	1988	2009	
	Channel Width (ft)	Channel Width (ft)	Change in Width (ft)
1	26	25	-1
2	16	15	2
Average	21	20	0
NF1: North Fork South Platte near Shawnee			
Segment ID	1985	2009	
	Channel Width (ft)	Channel Width (ft)	Change in Width (ft)
1	60	52	-8
2	52	46	-6
3	44	43	-1
4	50	46	-4
5	60	52	-7
6	40	41	1
7	66	61	-5
8	85	60	-25
9	48	48	-1
10	62	58	-4
Average	57	51	-6
NF2: North Fork South Platte near Pine			
Segment ID	1963	2009	
	Channel Width (ft)	Channel Width (ft)	Change in Width (ft)
1	42	52	10
2	43	45	2
3	53	65	11
4	48	53	5
5	55	54	-2
6	52	48	-4
7	50	56	6
Average	49	53	4
SBC1: South Boulder Creek above Rollinsville			
Segment ID	1985	2009	
	Channel Width (ft)	Channel Width (ft)	Change in Width (ft)
1	34	31	-3
2	40	34	-6
3	39	38	-2
4	34	31	-3
5	32	34	3
6	36	32	-4
7	49	54	5
8	34	37	3
9	54	51	-3
10	26	29	3
Average	38	37	-1

Table H-17.6. Changes in Channel Width below DW Facilities where Flows have been Increased (Continued)

SBC3: South Boulder Creek below Gross Reservoir			
Segment ID	1983	2009	
	Channel Width (ft)	Channel Width (ft)	Change in Width (ft)
1	60	46	-14
2	45	42	-3
3	38	35	-3
4	64	62	-2
5	44	38	-6
6	34	27	-4
Average	47	42	-5

Appendix H-18
Historic Photo Comparisons

Page Number

Fraser River above West Portal H18-1
Fraser River below West Portal H18-5
Vasquez Creek near West Portal..... H18-9
St. Louis Creek..... H18-13
Ranch Creek near Tabernash H18-17

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Fraser River above West Portal

This site is in an undeveloped area and appears to have been relatively undisturbed since the gage was installed.

When comparing Photos 1 and 2, the 1934 photo shows a higher right (east) bank; however, cross-sectional survey data indicate that the 1934 bank was likely a constructed level as it was higher in elevation than the adjacent ground (see Section 4.6.3 in the FEIS). The natural riparian vegetation, which is presumed to have been impacted during gage construction, has reestablished.

Photos 3 and 4 indicate that the left (west) bank has remained generally unchanged over the 20-year period with some of the timbers downstream of the gage station having been removed.

Photos 5 and 6 suggest that the hydraulic control downstream of the gage has been relatively stable from 1990 to 2010.

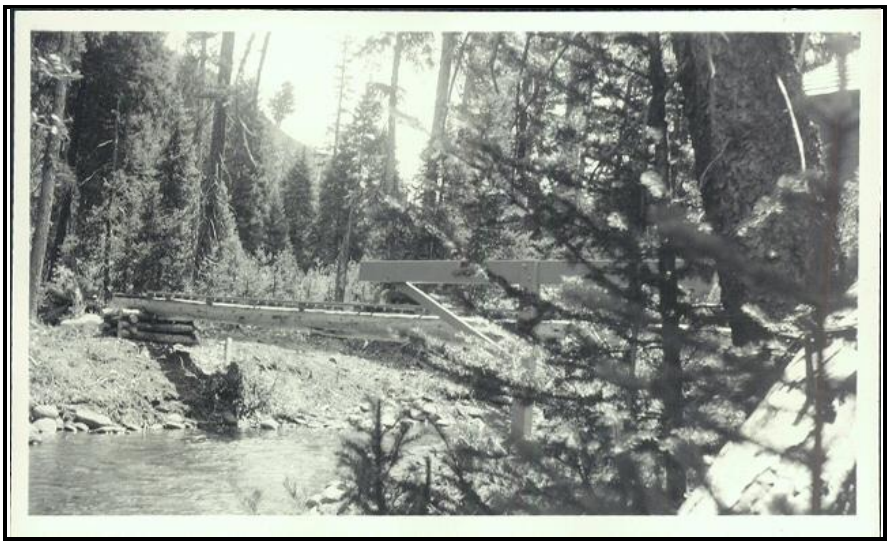

Photo 1: August 1934 photo facing upstream at gage location.

Photo 2: September 2010 photo at same location.

Photo 3: June 1990 photo facing upstream from east bank towards building.

Photo 4: September 2010 photo at same location.

Photo 5: June 1990 photo facing downstream from gaging station.

Photo 6: September 2010 photo at same location.

Fraser River below West Portal

This site has been impacted since the 1930s. The gage has been removed and a new road crosses the stream immediately upstream of this location. The road crosses the stream in a culvert which likely has had a localized impact on the stream.

When comparing Photos 7 through 9, the same large boulder is apparent along the left channel bank. Over the approximately 75 years between photos, it appears that larger cobbles have deposited (1990 photo) and then been removed (2010 photo) from the area in front of the larger boulder. Larger cobbles appear predominately in all photographs.

Photos 10 and 11 show a large boulder that has remained in place along the right bank from 1990 to 2010. Both photos show significant amounts of larger cobble-sized material in the stream bed.

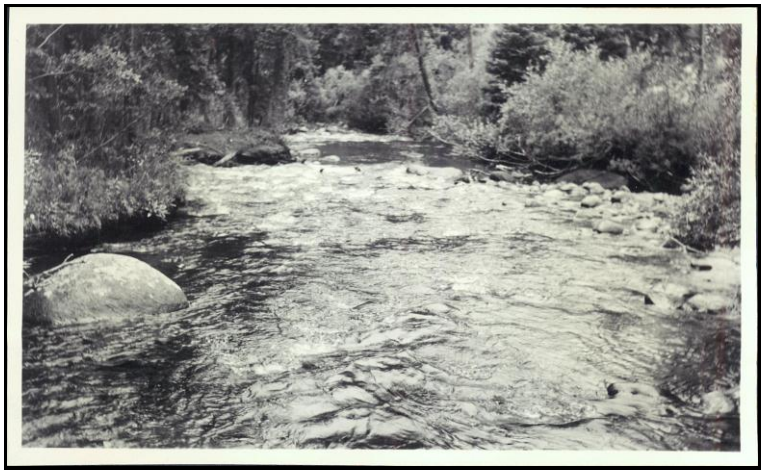

Photo 7: July 1934 photo facing downstream towards station control section.

Photo 8: June 1990 photo – assumed same location (gaging station removed).

Photo 9: September 2010 photo – assumed same location (gaging station removed).

Photo 10: June 1990 photo facing downstream.

Photo 11: September 2010 photo from same location.

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Vasquez Creek near West Portal

This site is located in downtown Winter Park and has been heavily impacted since the 1930s. The gaging station remains; however, this area has been developed. Highway 40 now crosses the stream immediately upstream of the gage and development has occurred on the right and left banks.

Photo 12 is taken facing upstream after the gage was originally installed. A pedestrian bridge and Highway 40 can be seen in the background of Photo 13, taken from the same orientation. Riparian vegetation has reestablished along the banks.

The original hydraulic control shown in Photo 14 has been replaced with a concrete control shown in Photo 15. This area has been altered to the point where no meaningful information on channel morphology can be gained from a comparison of these photos.

Photo 12: July 1934 photo facing upstream.

Photo 13: September 2010 photo facing upstream in generally the same location.

Photo 14: July 1934 photo facing downstream showing gage and control section.

Photo 15: September 2010 photo facing downstream showing new control section.

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St. Louis Creek

This site is in an undeveloped area and appears to have been relatively undisturbed since the gage was installed.

When comparing Photos 16 through 18, the gaging shed is evident in all photos. The original flume was removed at some point after 1934. A timber control structure was installed in the river at some point prior to 1990 and is observed in the two later photos. Smaller substrate material is observed along the banks and in the bar in the 1934 and 2010 photo. Higher flows preclude observation of this material in the 1990 photo. Larger cobbles appear within the channel in all photographs.

Photos 19 and 20 show additional deposition has occurred upstream of the gage from 1934 to 2010 as apparent from the split flow in the 2010 photo. Deposition may or may not be the result of the installed grade control.

Photo 16: August 1934 photo of gaging station facing south.

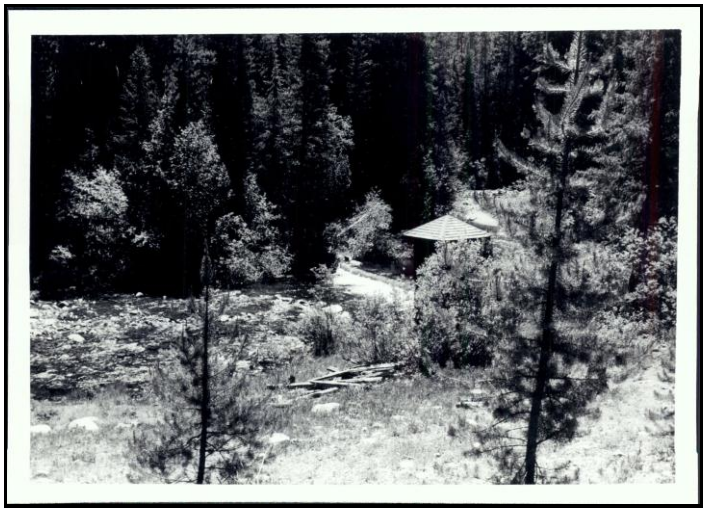

Photo 17: June 1990 photo taken at same location.

Photo 18: September 2010 photo taken at same location.

Photo 19: August 1934 photo taken facing upstream.

Photo 20: September 2010 photo taken at same location.

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Ranch Creek near Tabernash

This site is in an undeveloped area and appears to have been relatively undisturbed since the gage was installed; however, the gage has been removed.

When comparing Photos 21 and 22, the photos suggest that the stream has maintained at a similar width and is stable. Vegetated banks are observed in both photos. The presence of a beaver dam at the time of the 2010 photo (evident in foreground of photo) has likely changed the substrate in this area.

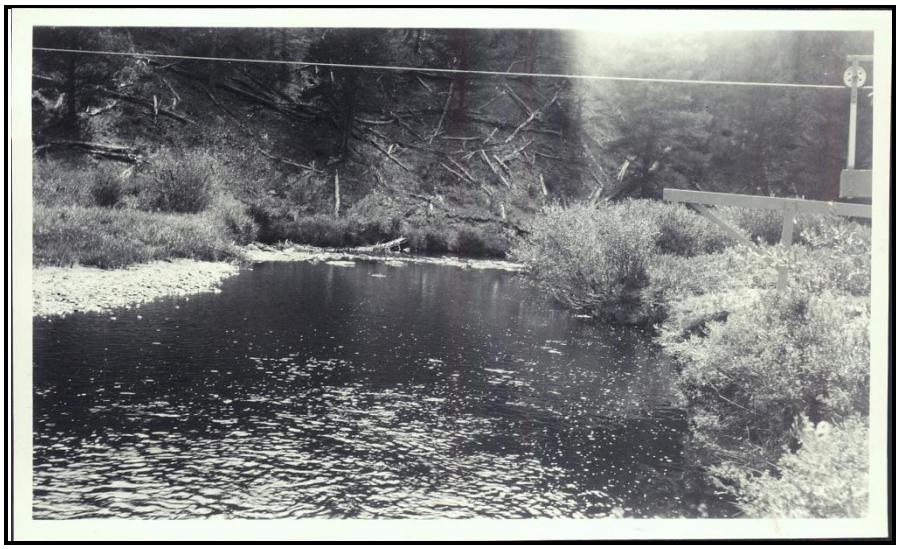

Photo 21: August 1934 photo taken facing downstream from gage location.

Photo 22: October 2010 photo taken from same location, gaging station has been removed.

Appendix H-19
Stream Discharge Measurement Data

- Figure H-19.1 Stream Discharge Measurement Data – Fraser River above Winter Park (Station No. 09022000)
- Figure H-19.2 Stream Discharge Measurement Data – Fraser River at Winter Park (1948 through 2010) (Station No. 09024000)
- Figure H-19.3 Stream Discharge Measurement Data – Fraser River at Winter Park (1969 through 2010) (Station No. 09024000)
- Figure H-19.4 Stream Discharge Measurement Data – St. Louis Creek near Fraser (Station No. 09026500)
- Figure H-19.5 Stream Discharge Measurement Data – Ranch Creek near Fraser (Station No. 09032000)
- Figure H-19.6 Stream Discharge Measurement Data – Williams Fork below Steelman Creek (Station No. 09035500)
- Figure H-19.7 Stream Discharge Measurement Data – Colorado River at Hot Sulphur Springs (Station No. 09034250)
- Figure H-19.8 Stream Discharge Measurement Data – Colorado River near Kremmling (Station No. 09058000)

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Figure H-19.1
Stream Discharge Measurement Data
Fraser River above Winter Park (Station No. 09022000)

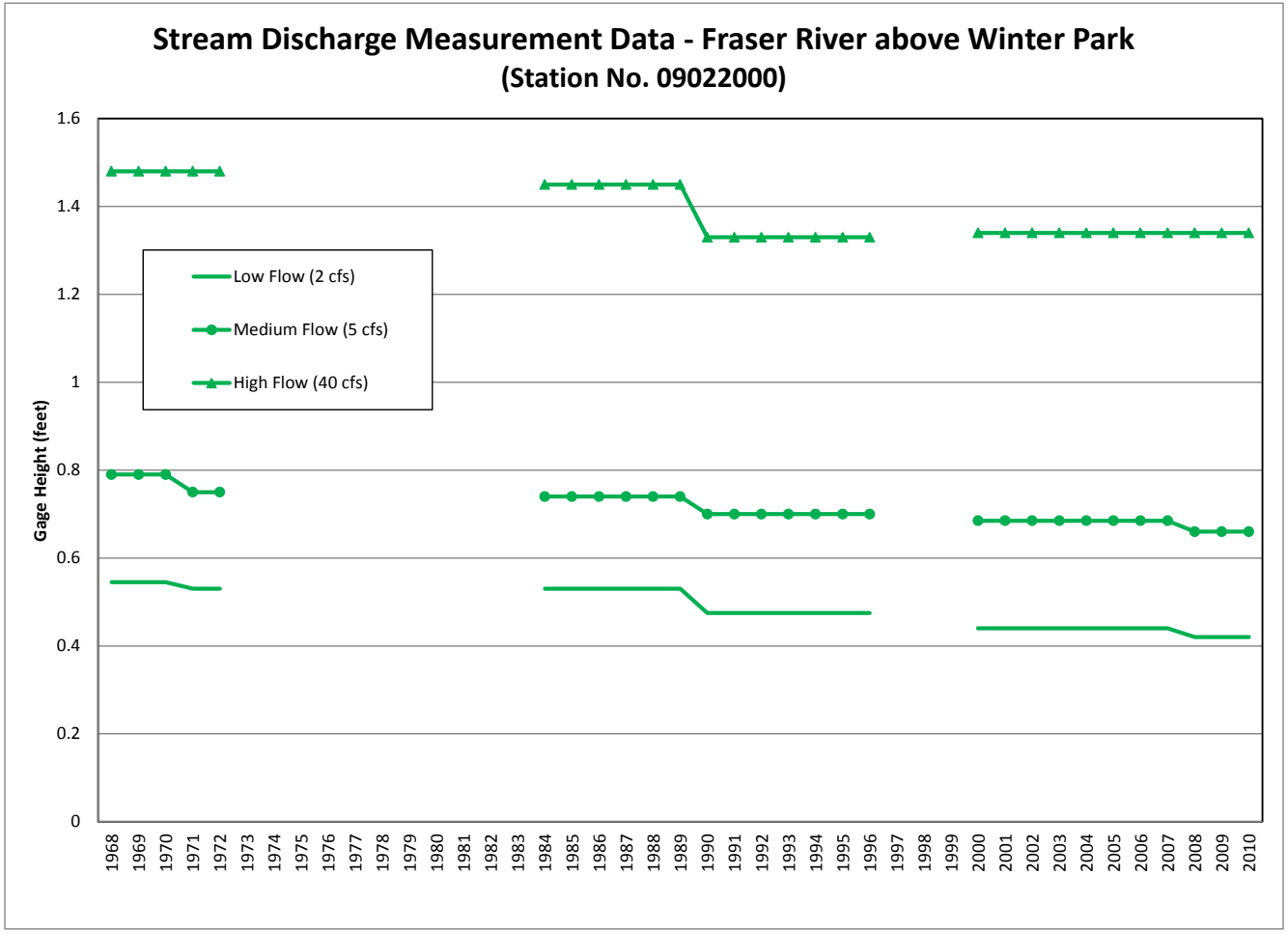


Figure H-19.2
Stream Discharge Measurement Data
Fraser River at Winter Park (1948 through 2010) (Station No. 09024000)

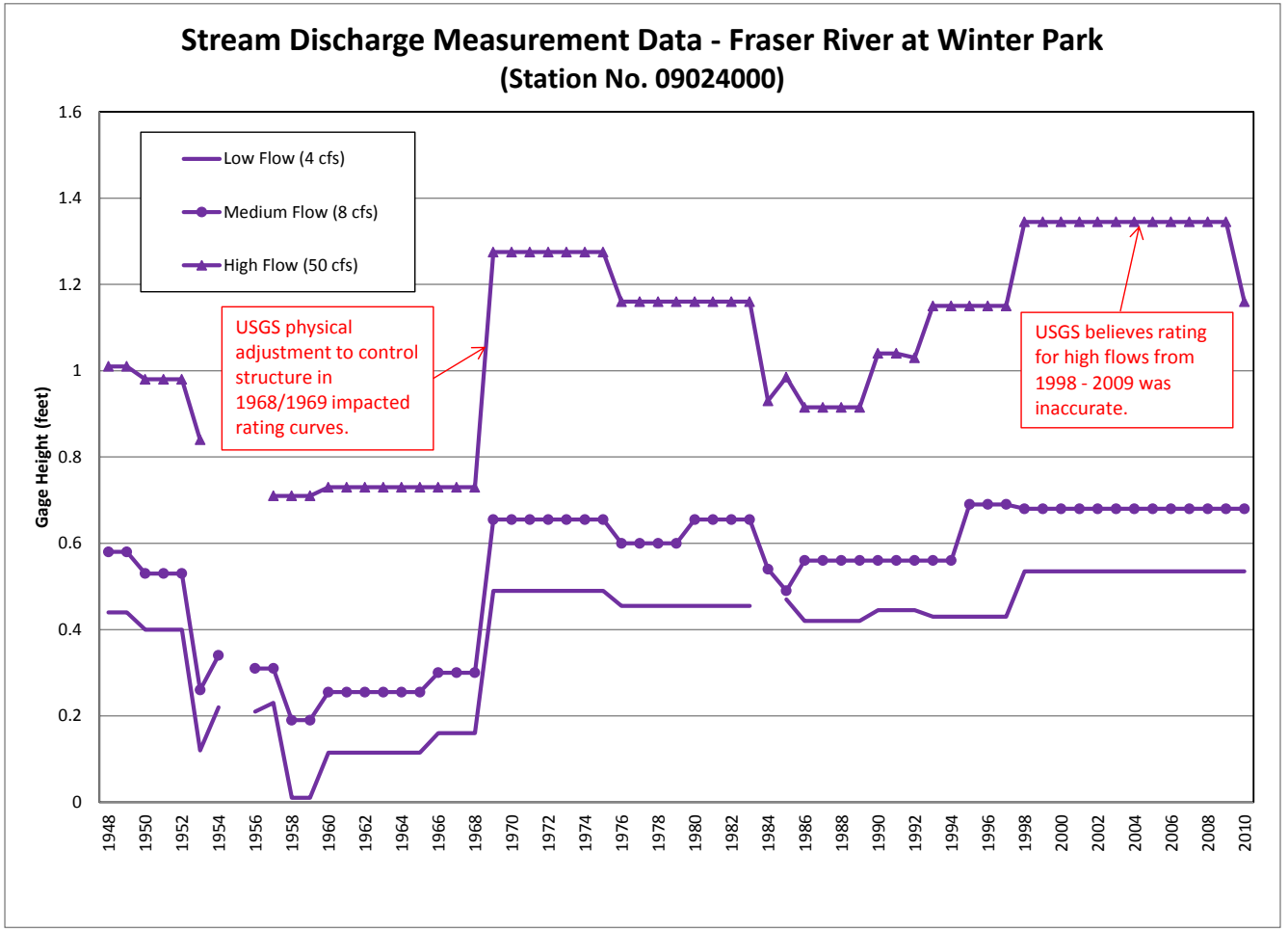


Figure H-19.3
Stream Discharge Measurement Data
Fraser River at Winter Park (1969 through 2010) (Station No. 09024000)

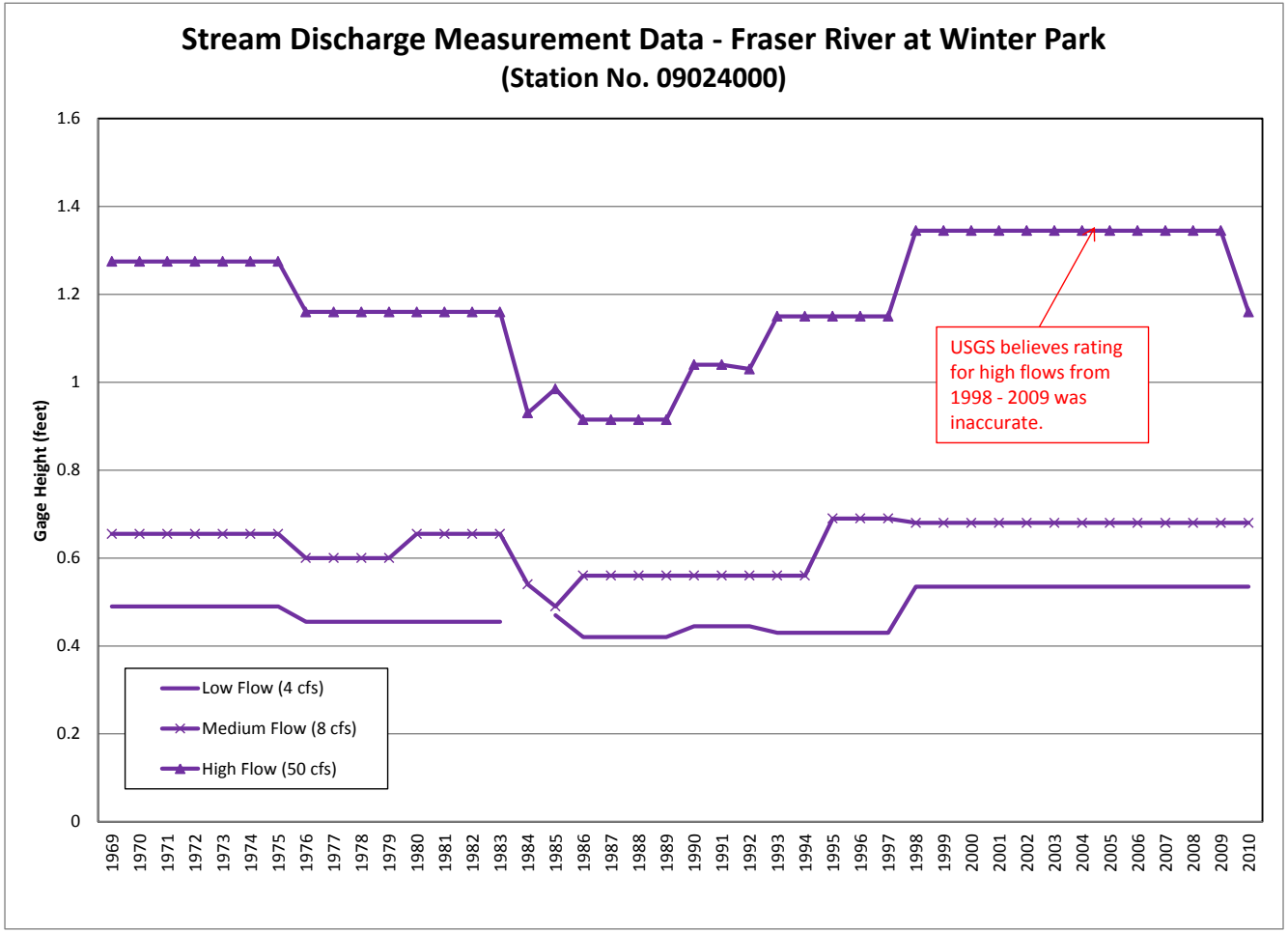


Figure H-19.4
Stream Discharge Measurement Data
St. Louis Creek near Fraser (Station No. 09026500)

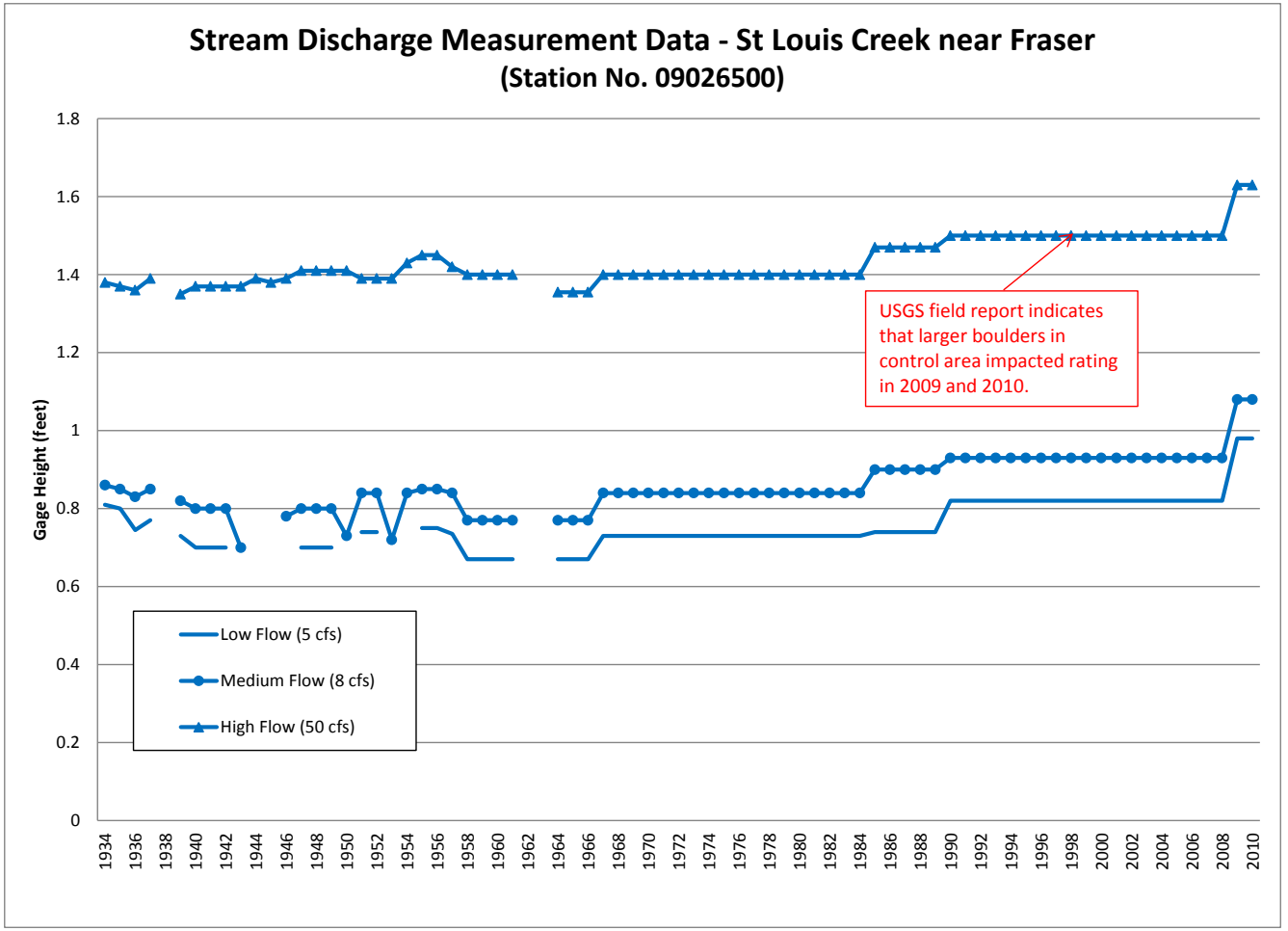


Figure H-19.5
Stream Discharge Measurement Data
Ranch Creek near Fraser (Station No. 09032000)

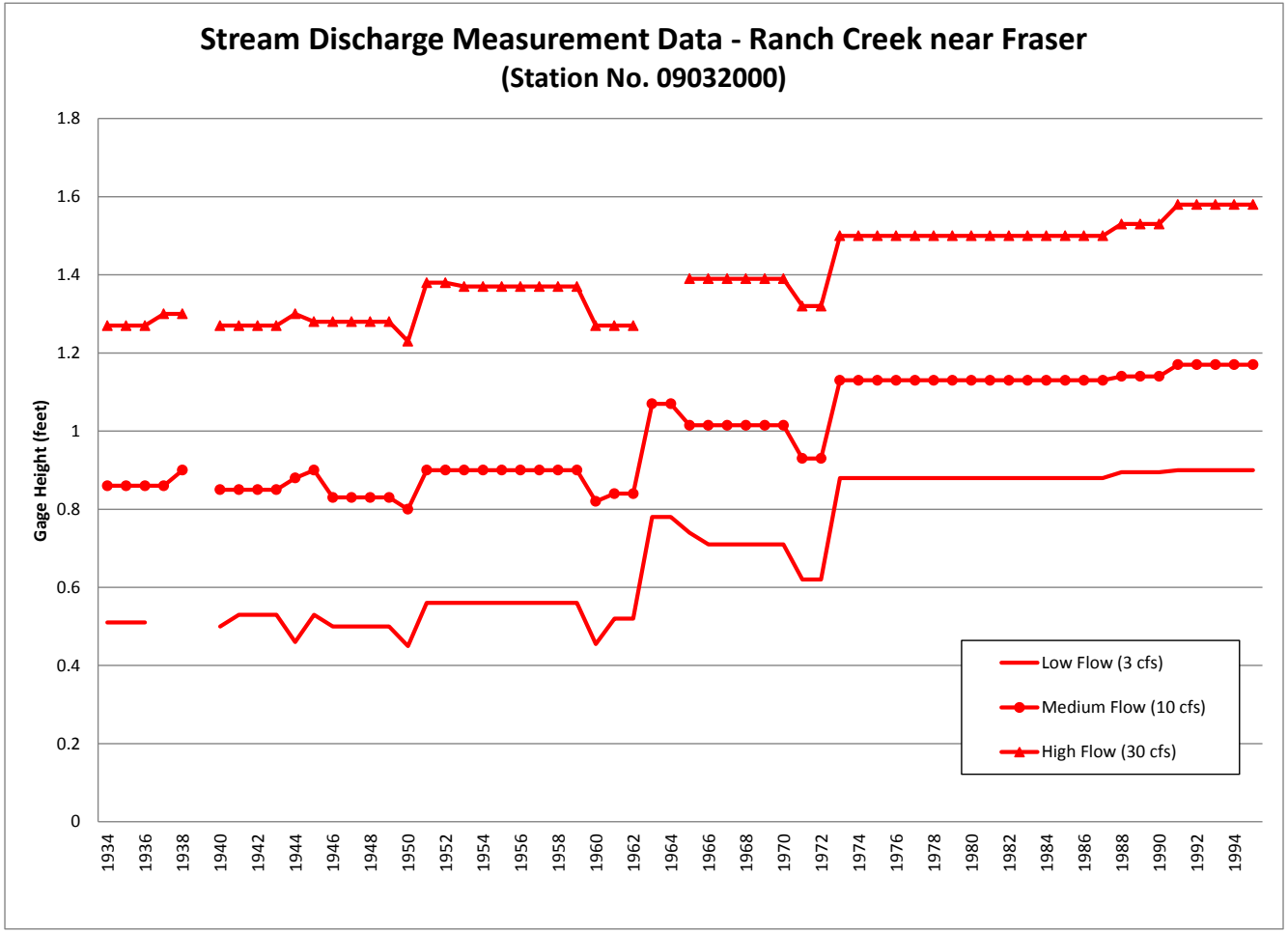


Figure H-19.6
Stream Discharge Measurement Data
Williams Fork below Steelman Creek (Station No. 09035500)

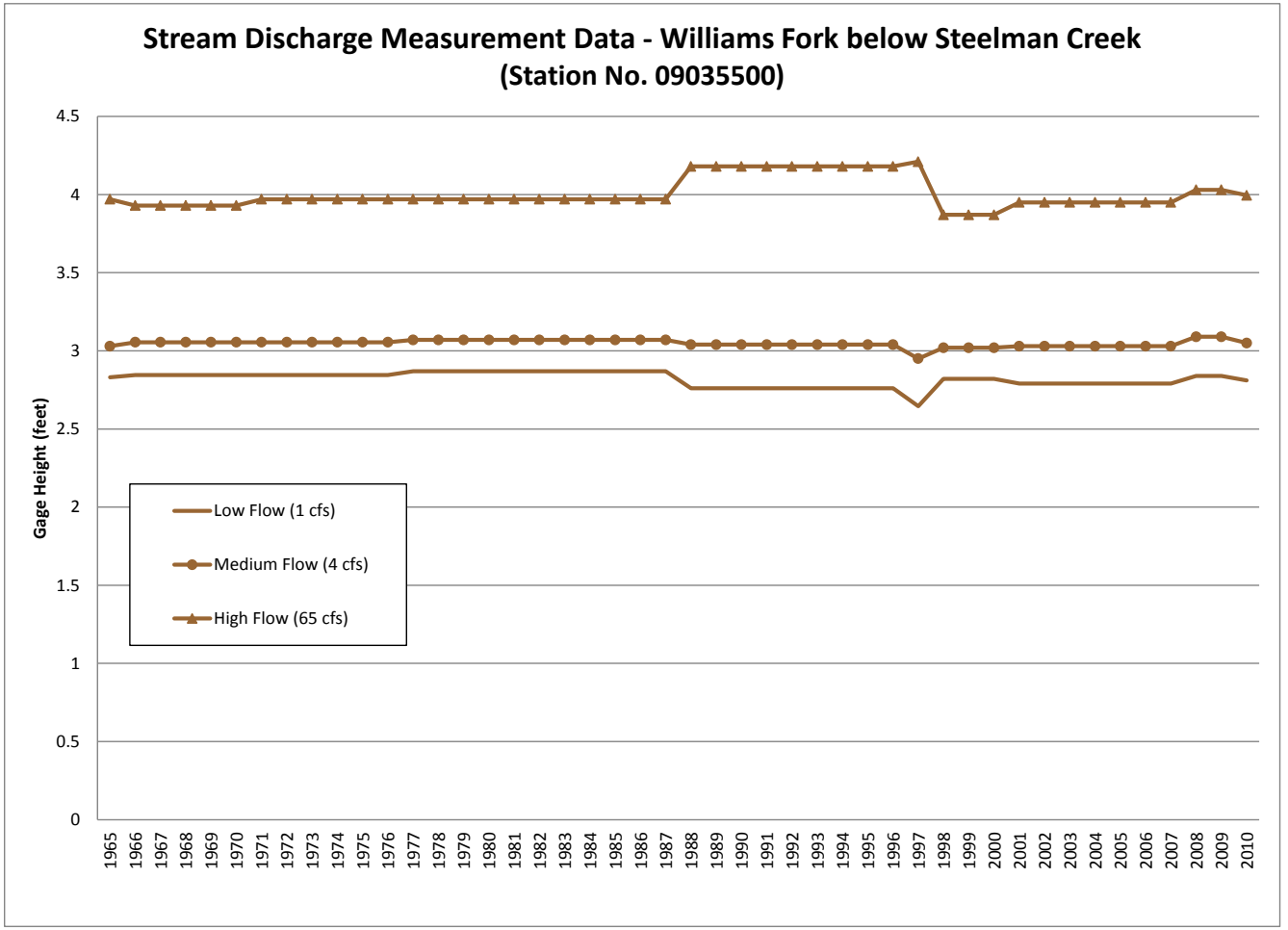


Figure H-19.7
Stream Discharge Measurement Data
Colorado River at Hot Sulphur Springs (Station No. 09034250)

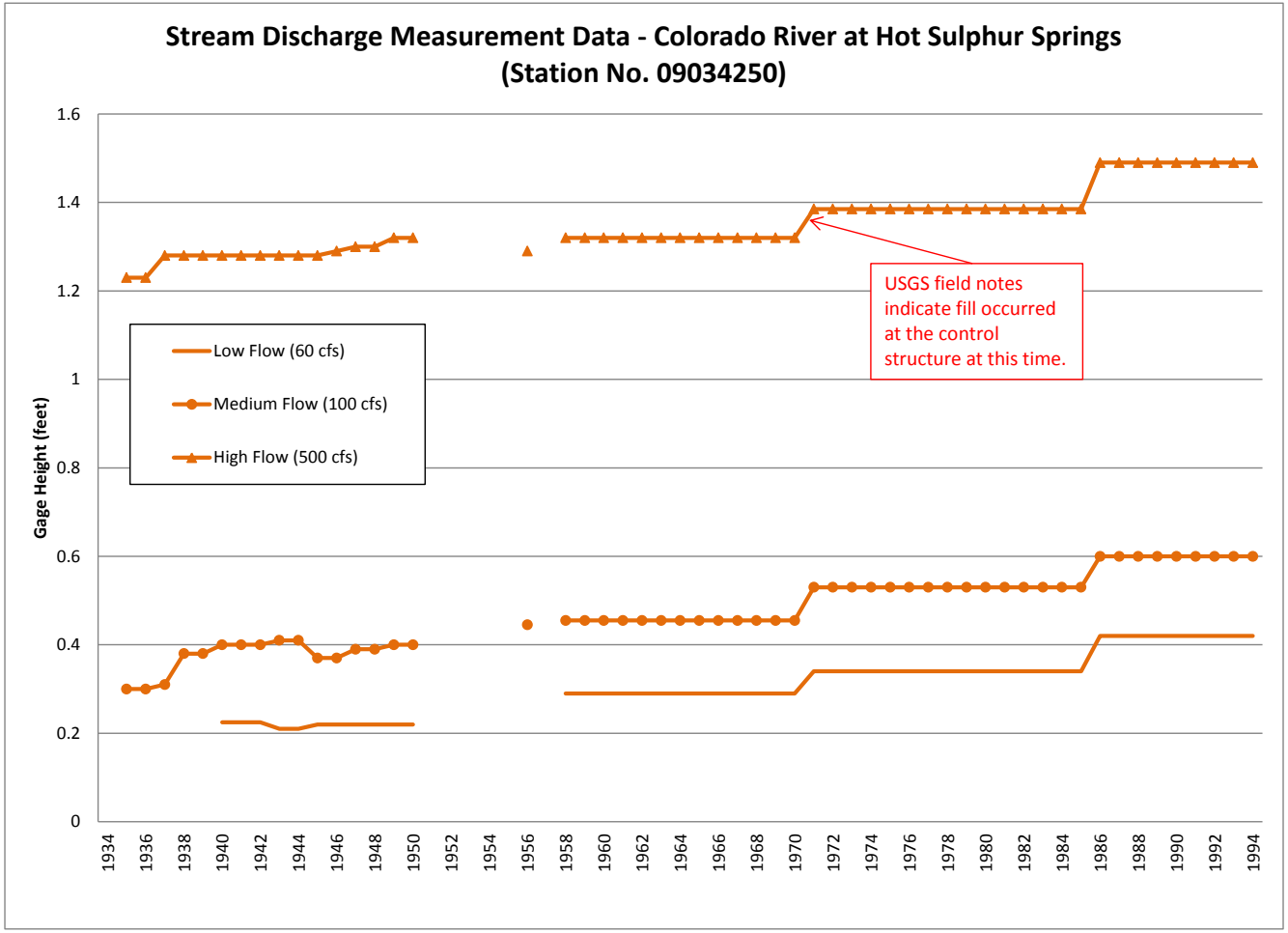
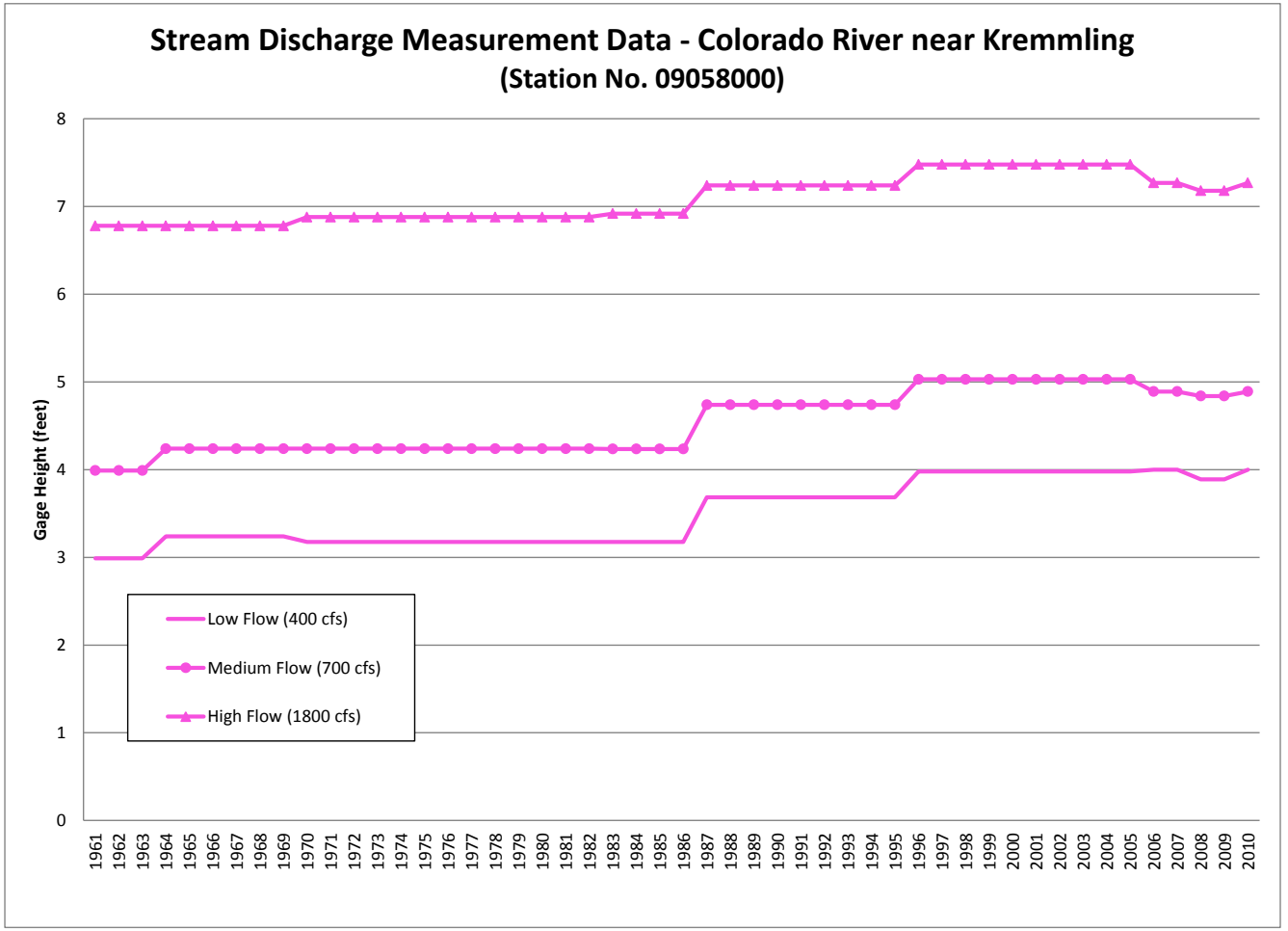


Figure H-19.8
Stream Discharge Measurement Data
Colorado River near Kremmling (Station No. 09058000)



Appendix H-20
Flood Flow Frequency Data

- Figure H-20.1 FR-1: Fraser River near Winter Park Gage
- Figure H-20.2 FR-2: Fraser River near Tabernash
- Figure H-20.3 FR-3: St. Louis Creek
- Figure H-20.4 FR-4: Ranch Creek
- Figure H-20.5 FR-5: Fraser River Downstream of Denver Water's Diversion
- Figure H-20.6 FR-6: Jim Creek
- Figure H-20.7 FR-7: Vasquez Creek
- Figure H-20.8 WF-1: Williams Fork near Sugarloaf Campground
- Figure H-20.9 WF-2: Williams Fork below Steelman Creek
- Figure H-20.10 CR-1: Colorado River above Parshall
- Figure H-20.11 CR-2: Colorado River at Kemp Breeze State Wildlife Area
- Figure H-20.12 BR-1: Blue River below Boulder Creek
- Figure H-20.13 NF-1: North Fork South Platte near Shawnee
- Figure H-20.14 NF-2: North Fork South Platte near Pine
- Figure H-20.15 SBC-1: South Boulder Creek above Rollinsville
- Figure H-20.16 SBC-3: South Boulder Creek below Gross Reservoir

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Figure H-20.1
FR-1: Fraser River near Winter Park Gage

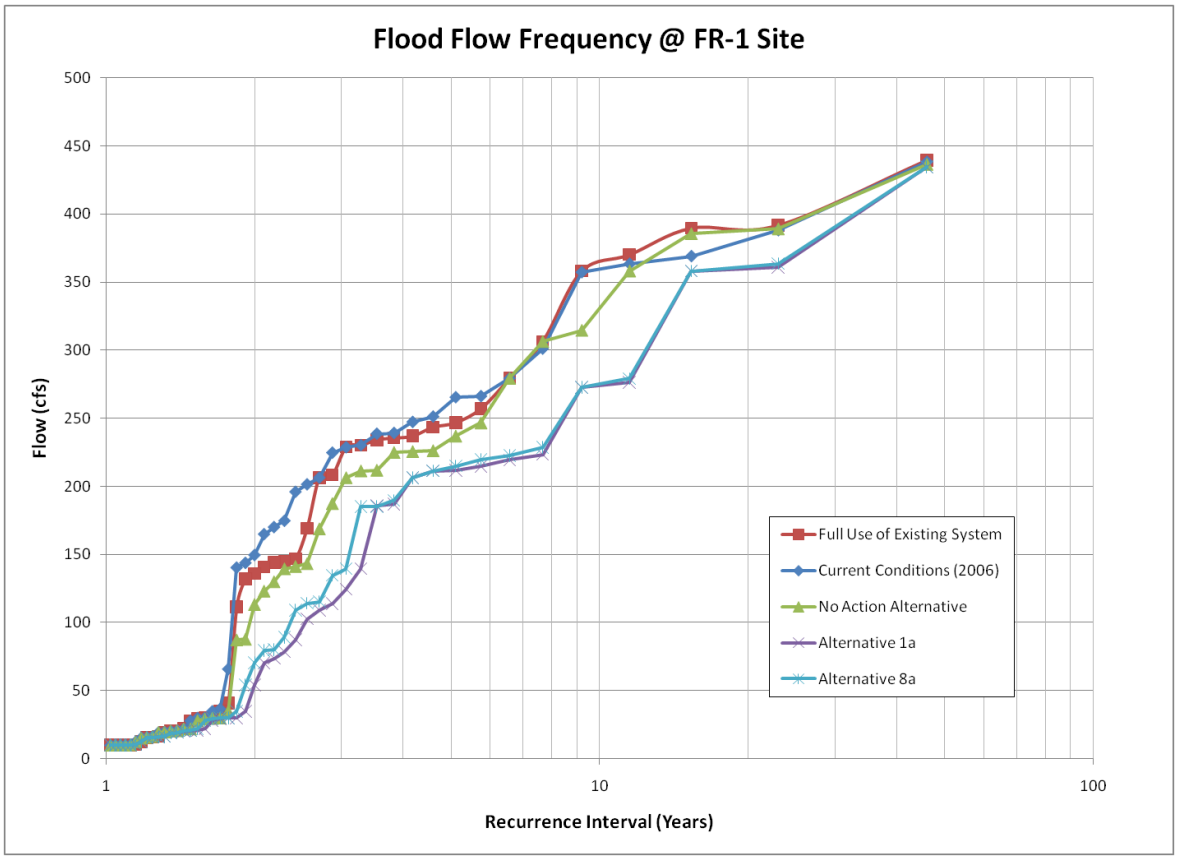


Figure H-20.2
FR-2: Fraser River near Tabernash

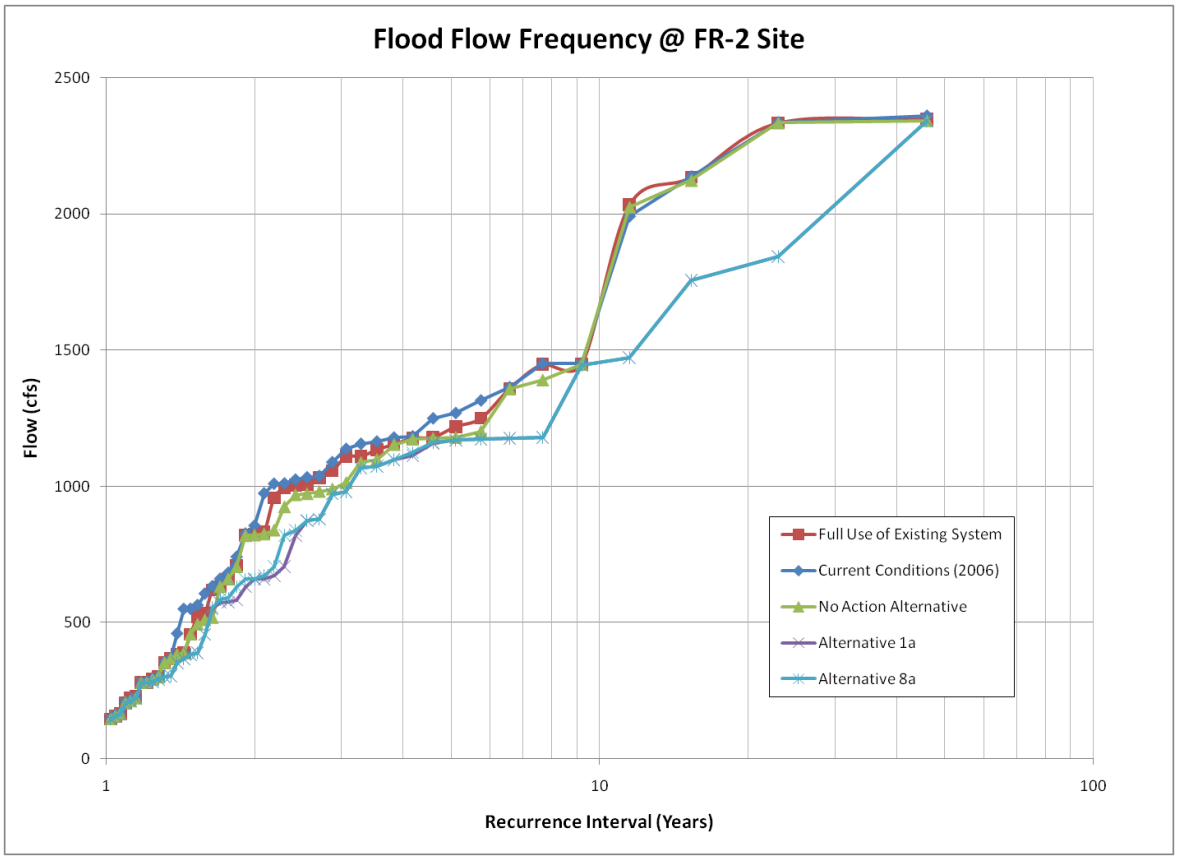


Figure H-20.3
FR-3: St. Louis Creek

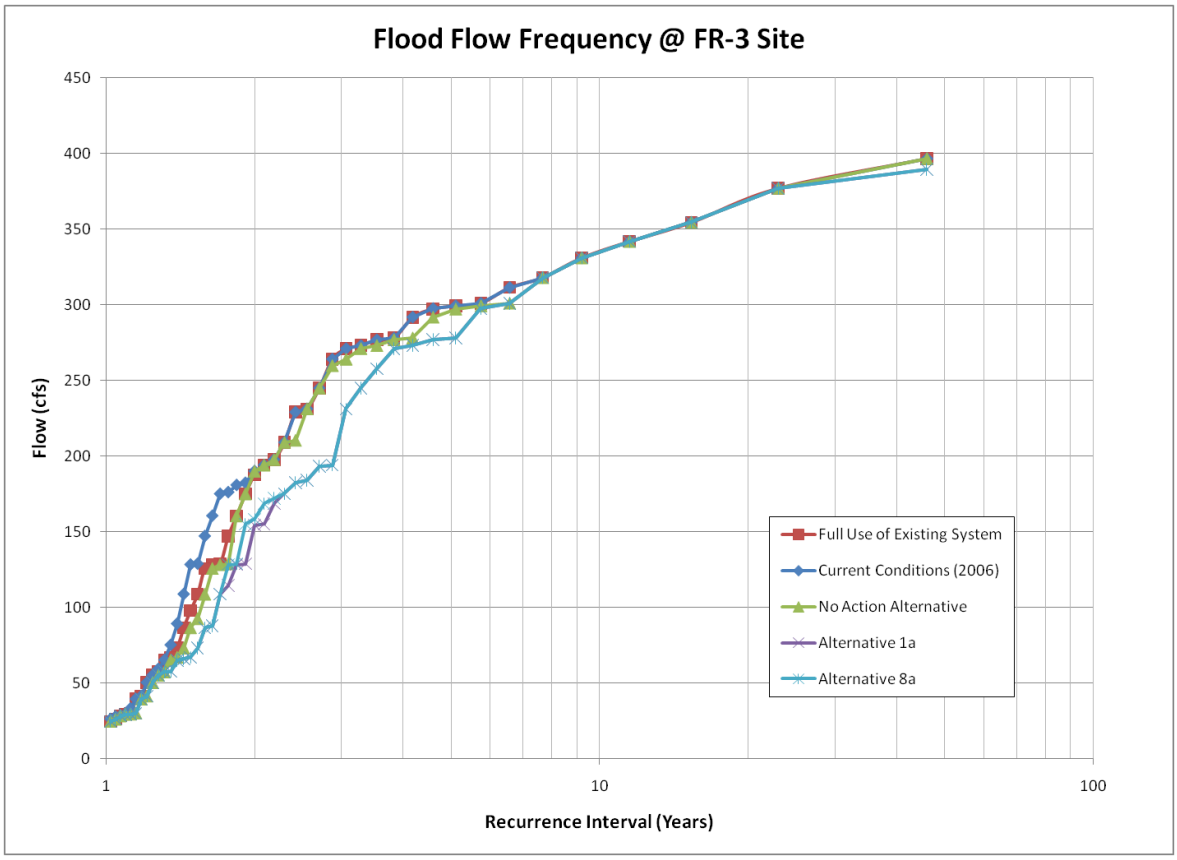


Figure H-20.4
FR-4: Ranch Creek

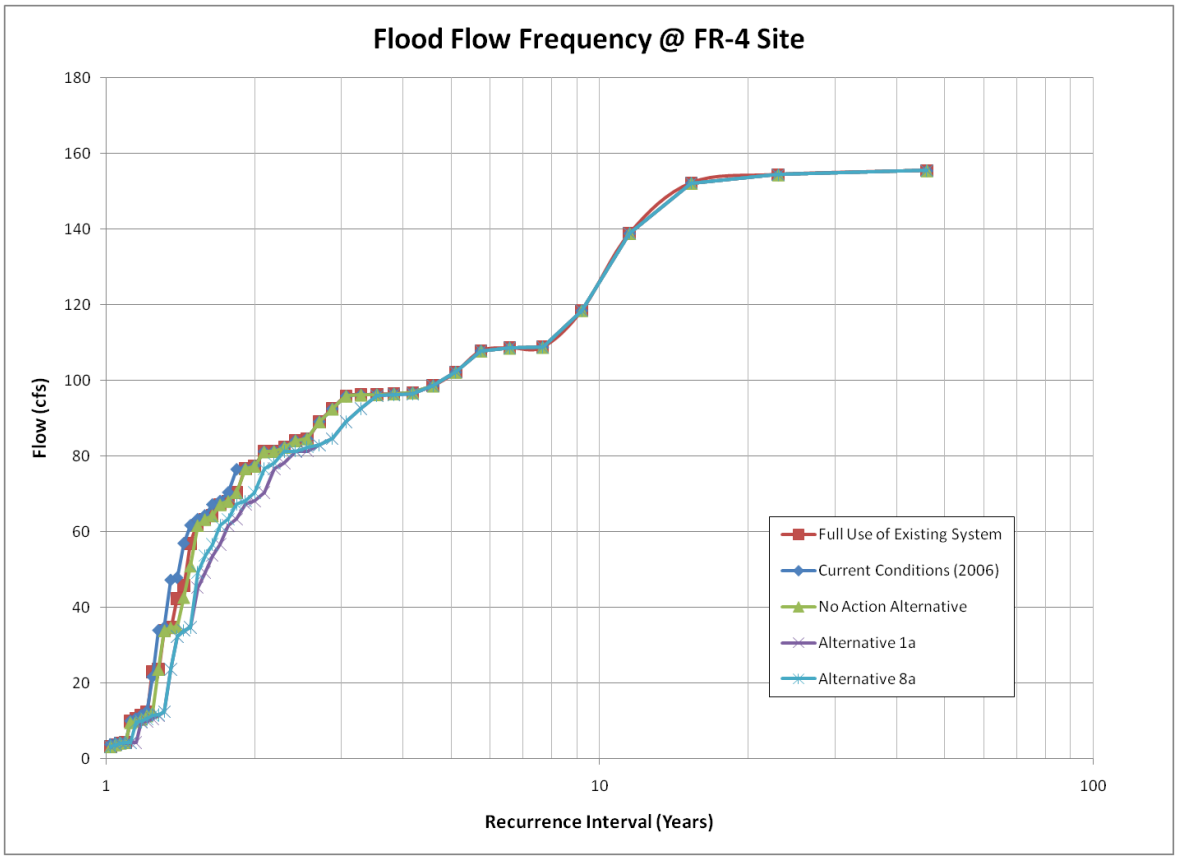


Figure H-20.5
FR-5: Fraser River Downstream of Denver Water's Diversion

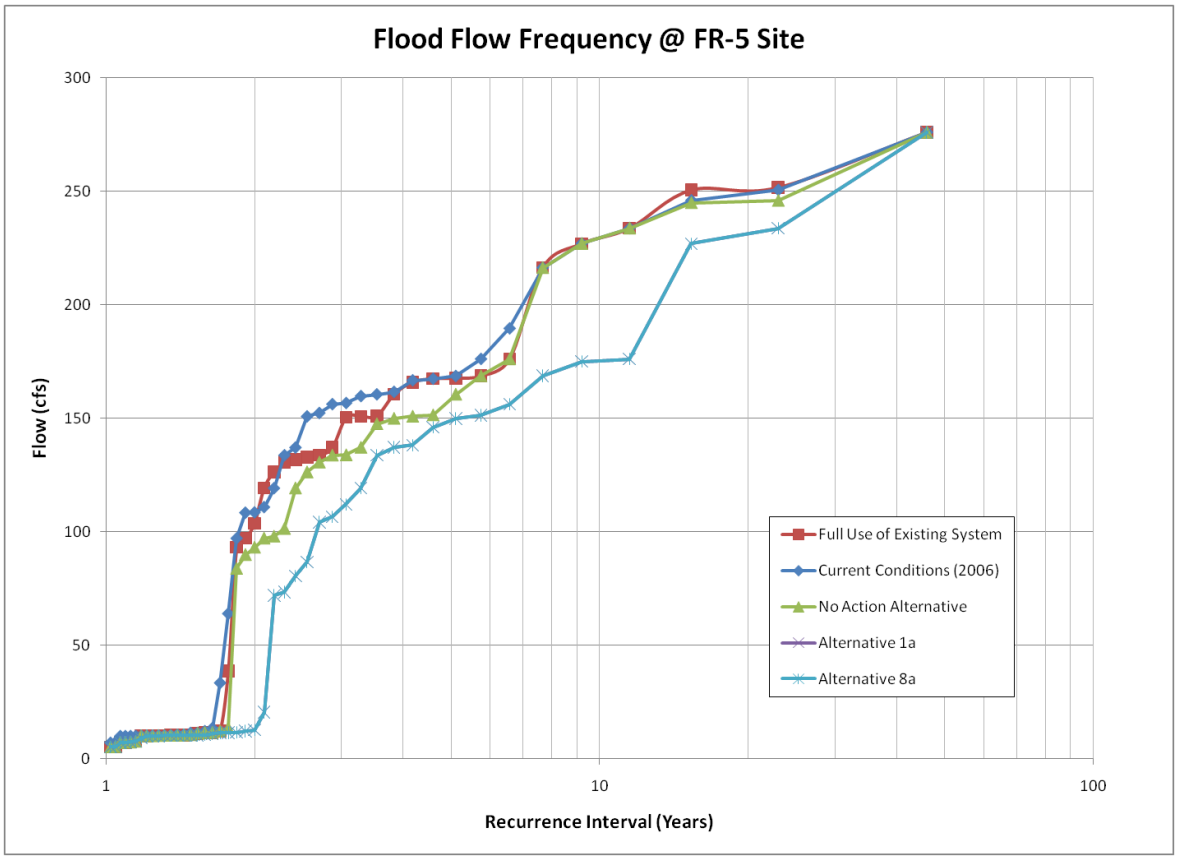


Figure H-20.6
FR-6: Jim Creek

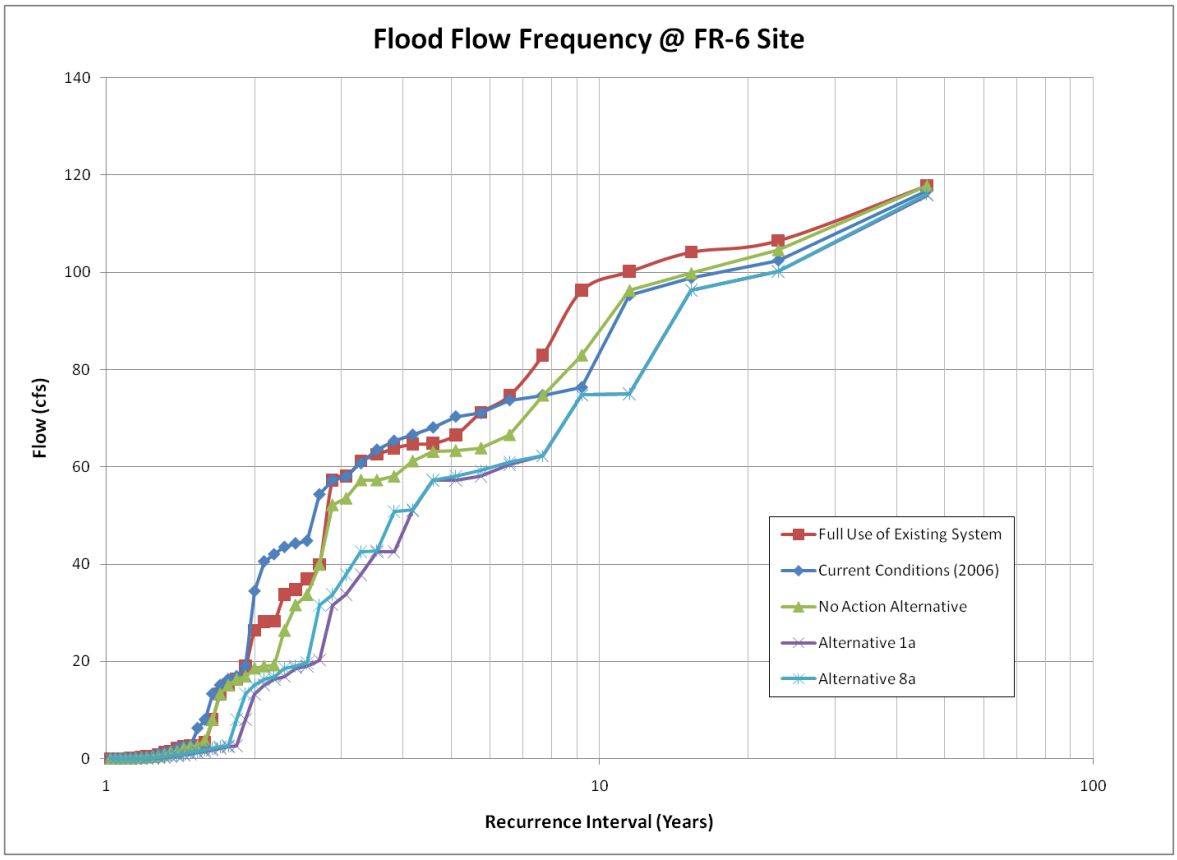


Figure H-20.7
FR-7: Vasquez Creek

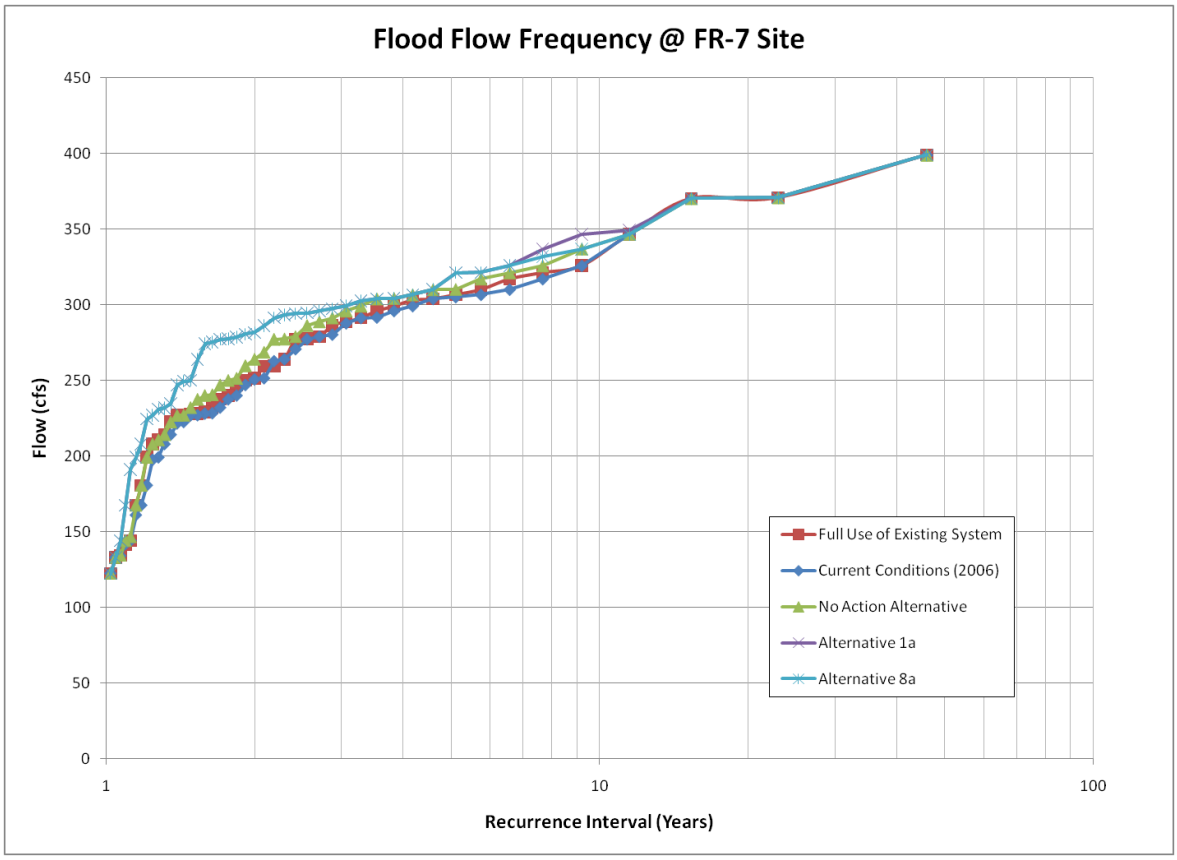


Figure H-20.8
WF-1: Williams Fork near Sugarloaf Campground

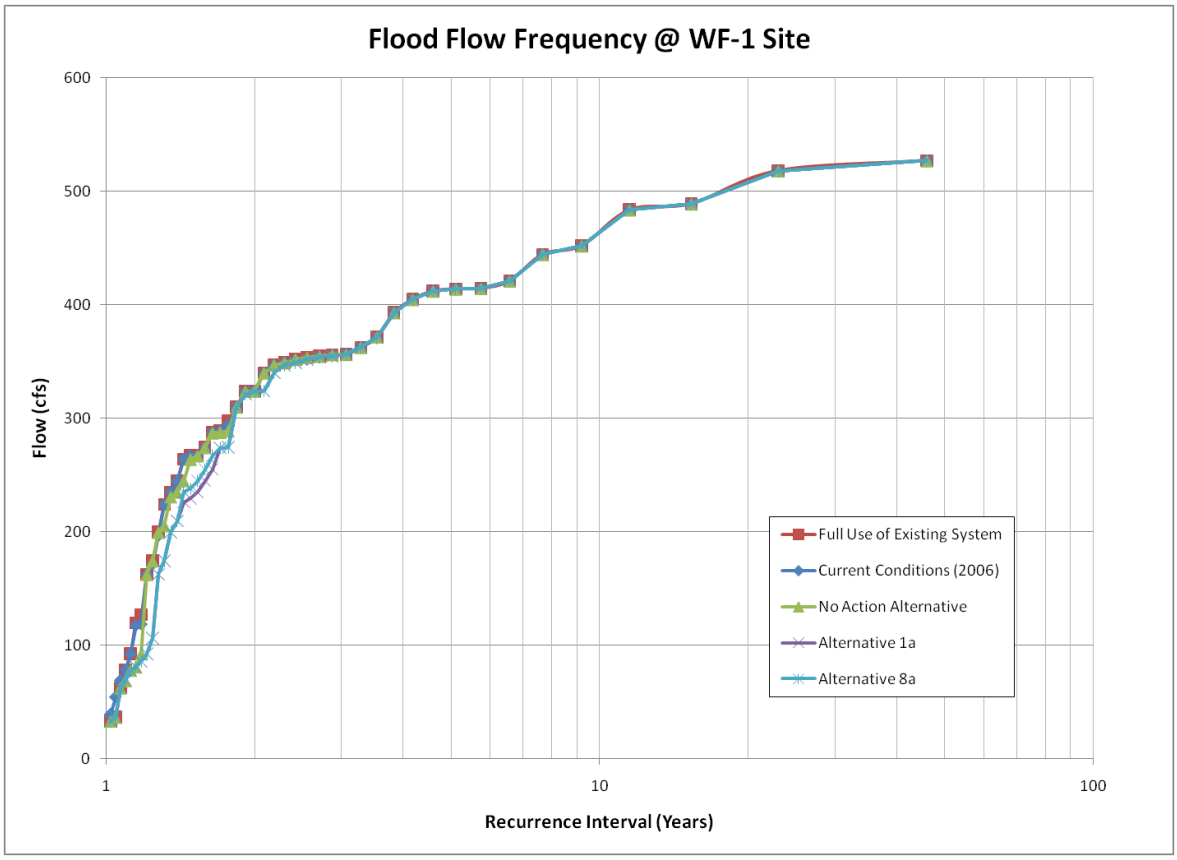


Figure H-20.9
WF-2: Williams Fork below Steelman Creek

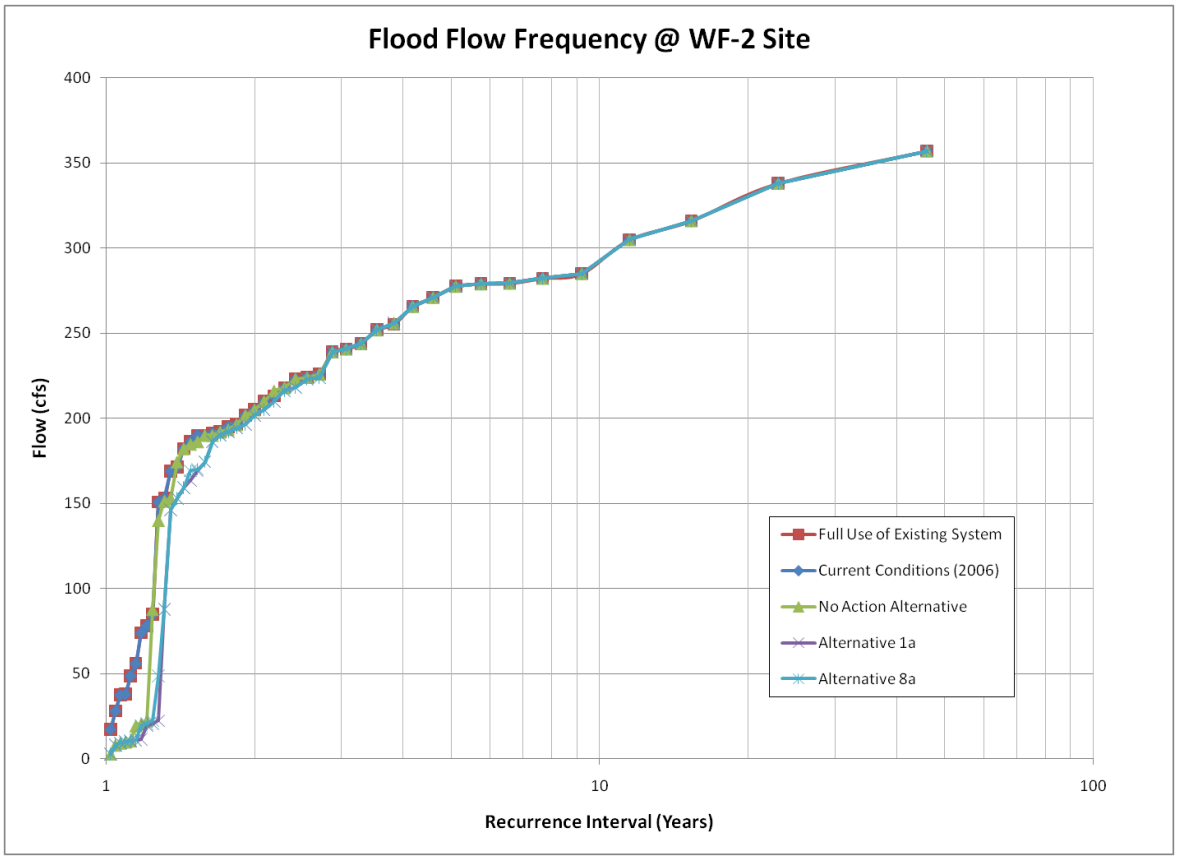


Figure H-20.10
CR-1: Colorado River above Parshall

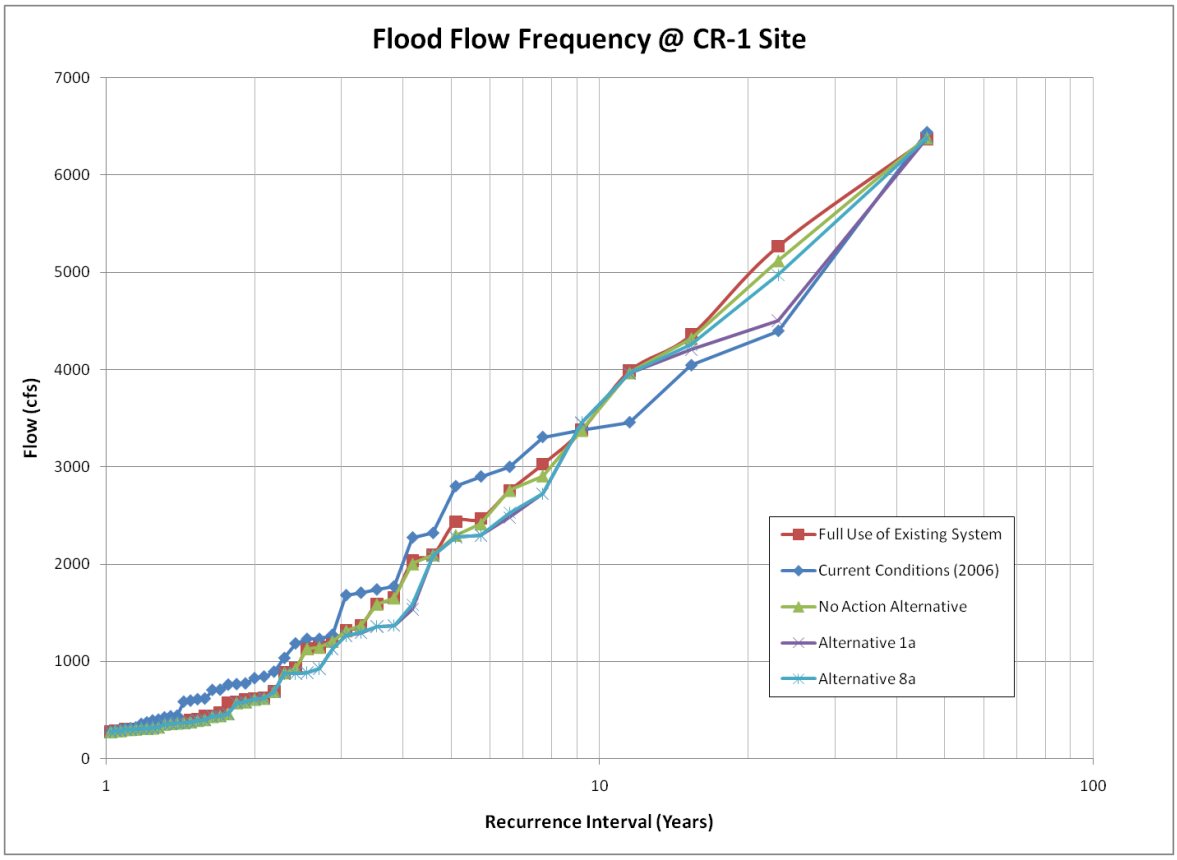


Figure H-20.11
CR-2: Colorado River at Kemp Breeze State Wildlife Area

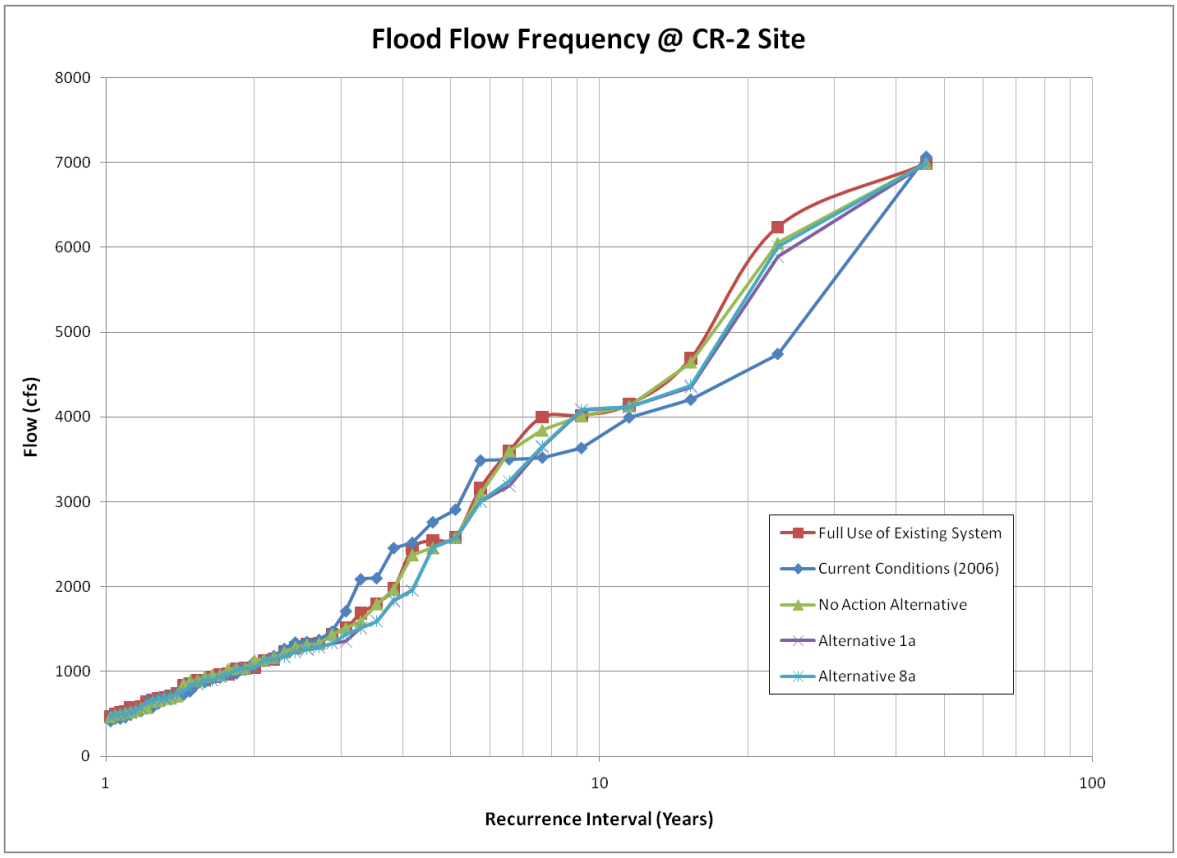


Figure H-20.12
BR-1: Blue River below Boulder Creek

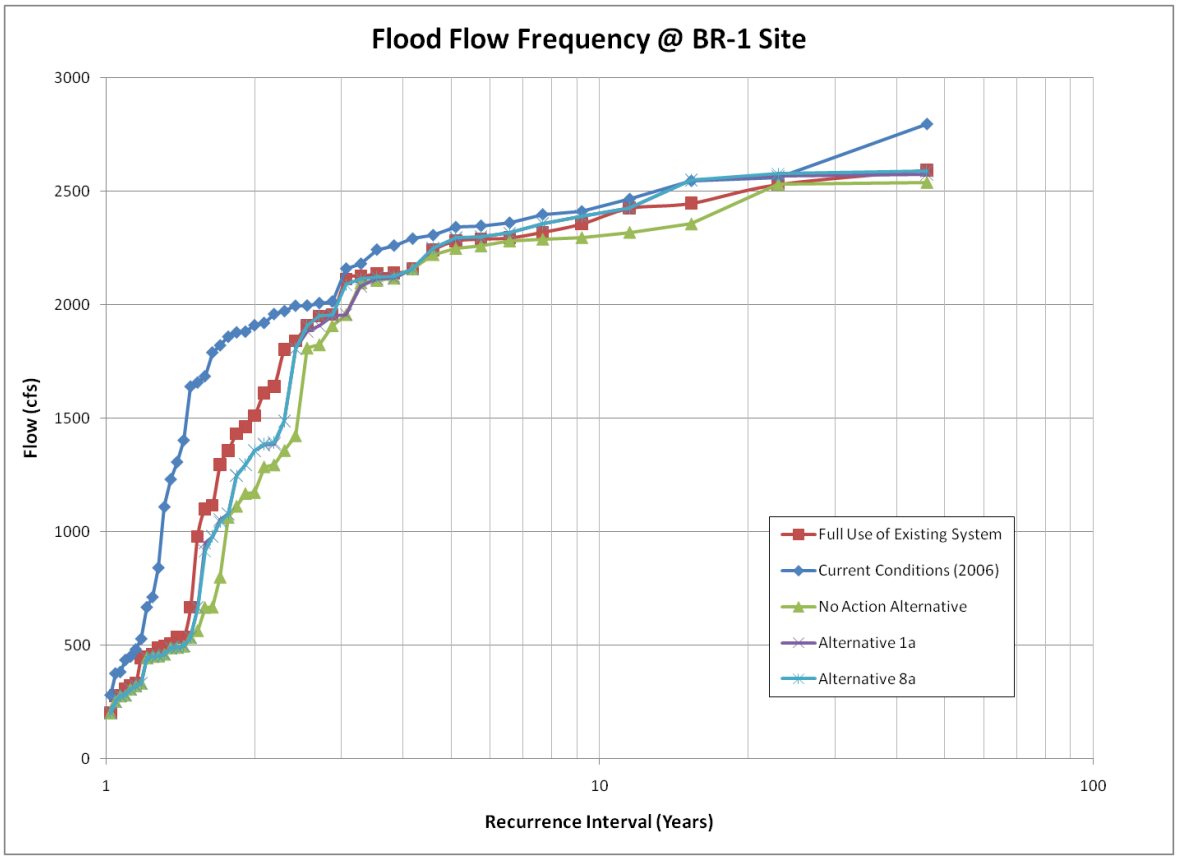


Figure H-20.13
NF-1: North Fork South Platte near Shawnee

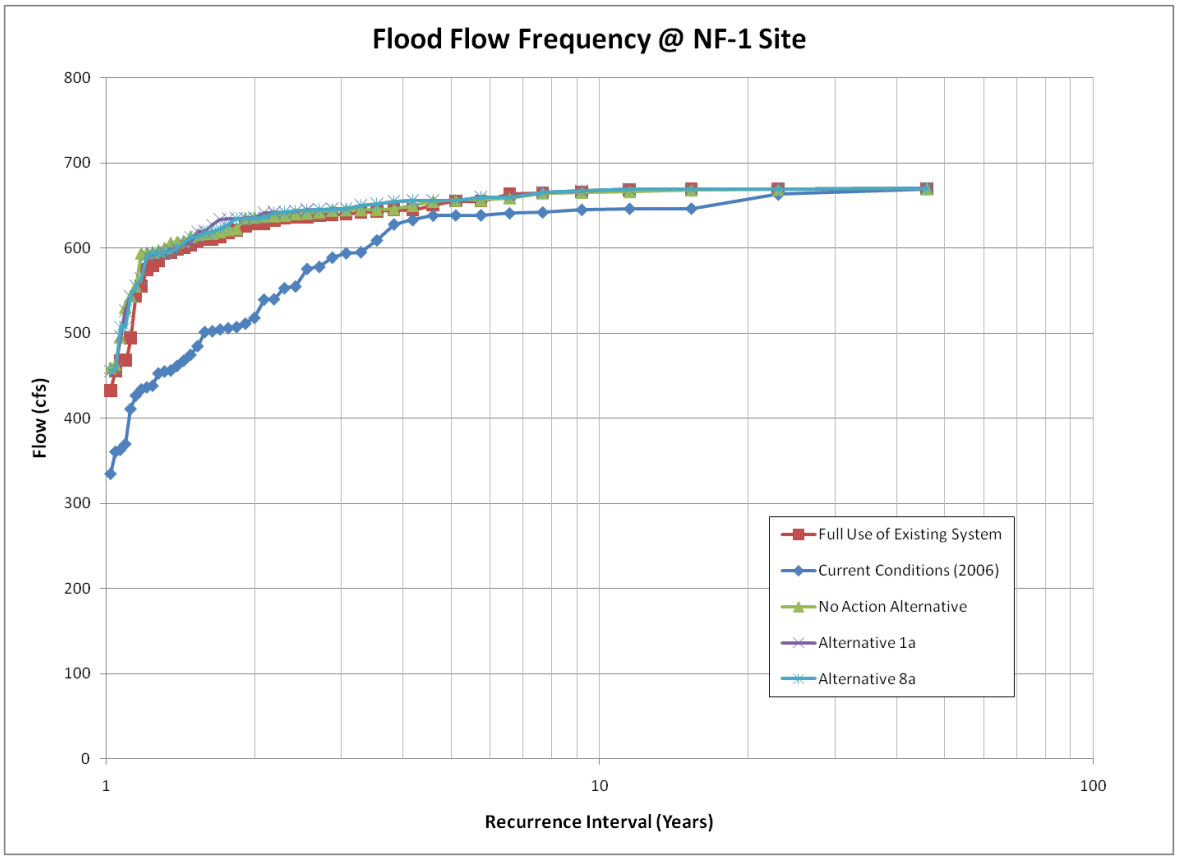


Figure H-20.14
NF-2: North Fork South Platte near Pine

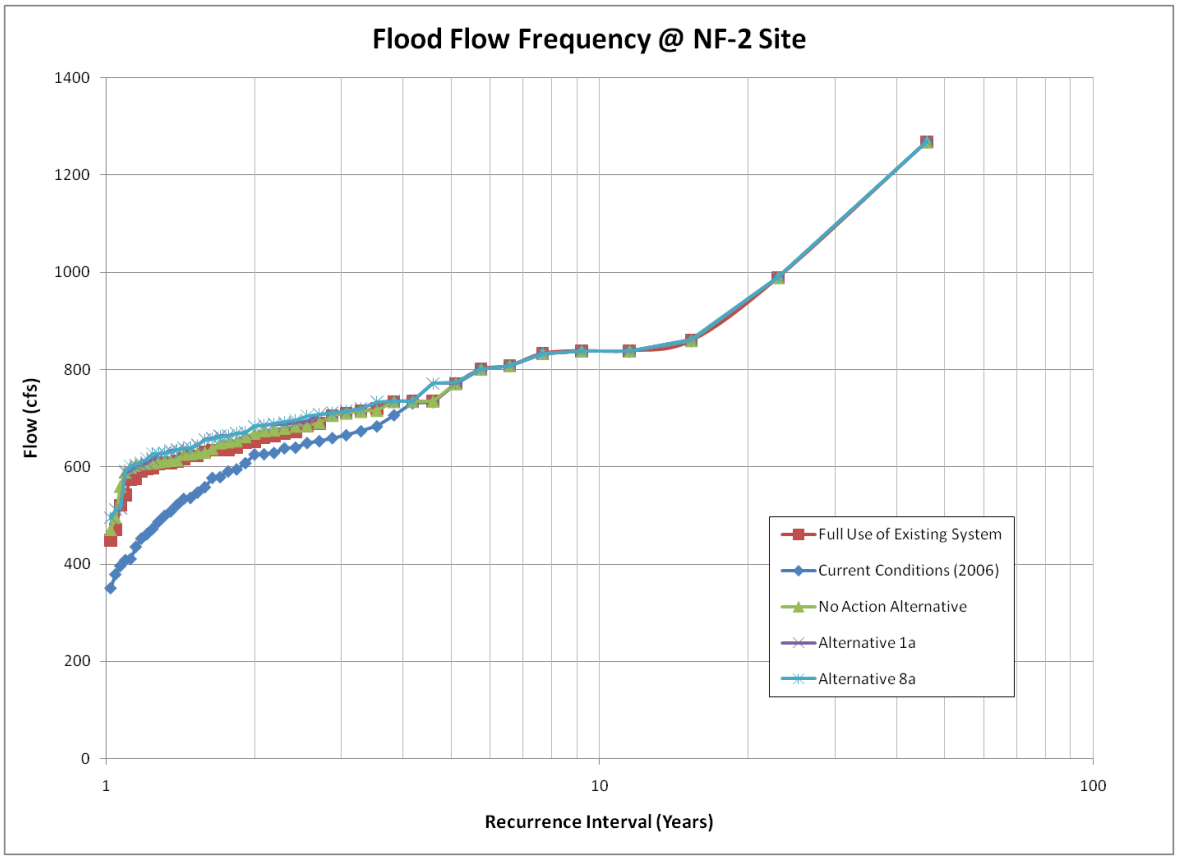


Figure H-20.15
SBC-1: South Boulder Creek above Rollinsville

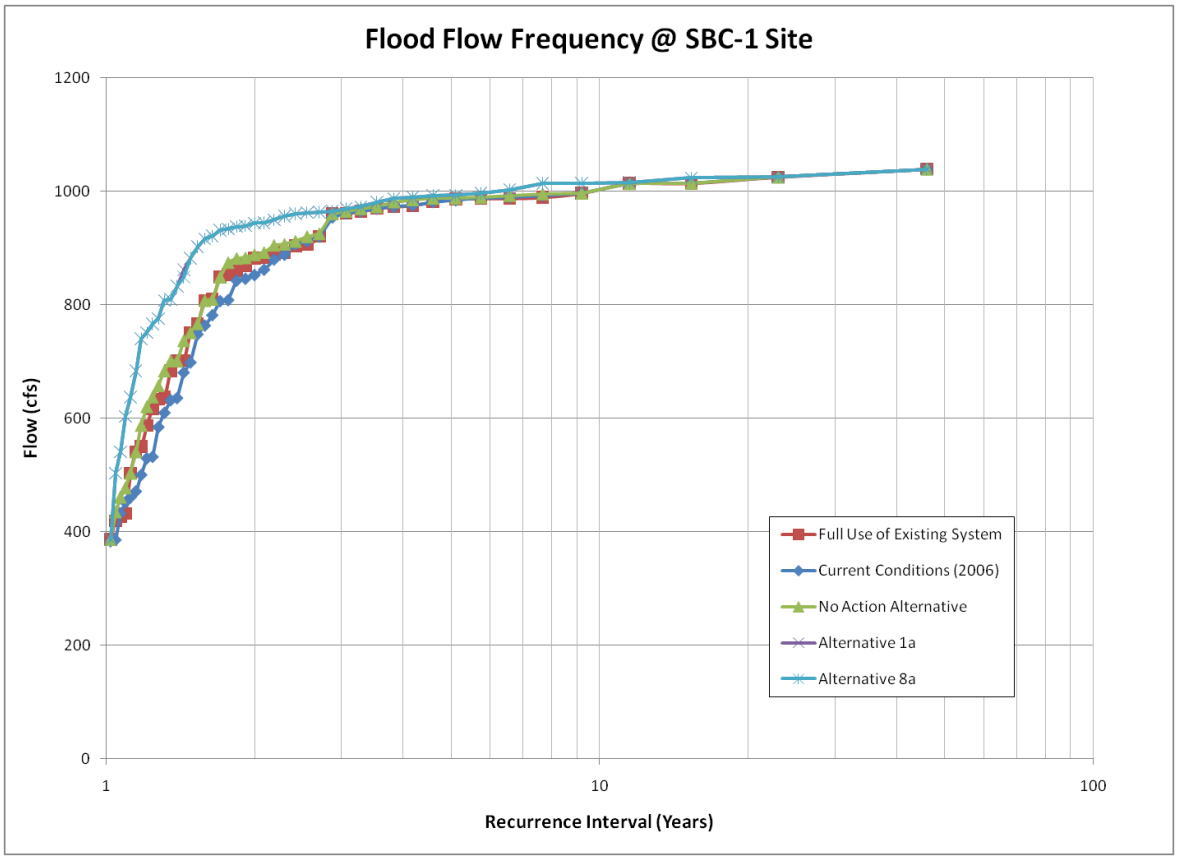
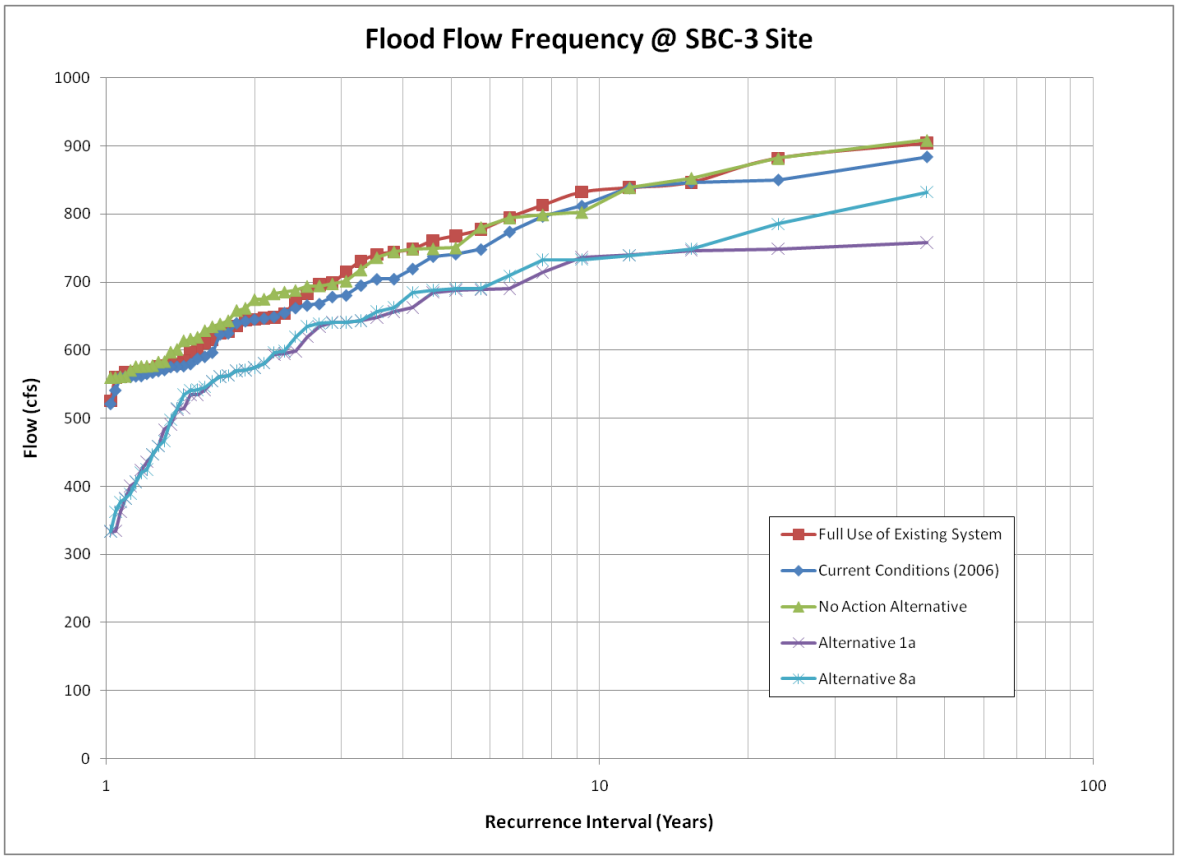


Figure H-20.16
SBC-3: South Boulder Creek below Gross Reservoir



Appendix H-21
Phase 2 Sediment Transport Graphs

- **Table H-21.1 Grain Size Classification**
- Figure H-21.1 FR-1, Fraser River near Winter Park Gage, Parker 1990
- Figure H-21.2 FR-1, Fraser River near Winter Park Gage, Wilcock and Crowe 2003
- Figure H-21.3 FR-2, Fraser River near Tabernash, Parker 1990
- Figure H-21.4 FR-2, Fraser River near Tabernash, Wilcock and Crowe 2003
- Figure H-21.5 FR-3, St. Louis Creek, Parker 1990
- Figure H-21.6 FR-3, St. Louis Creek, Wilcock and Crowe 2003
- Figure H-21.7 FR-4, Ranch Creek, Parker 1990
- Figure H-21.8 FR-4, Ranch Creek, Wilcock and Crowe 2003
- Figure H-21.9 FR-5, Fraser River Downstream of Denver Water's Diversion, Parker 1990
- Figure H-21.10 FR-5, Fraser River Downstream of Denver Water's Diversion, Wilcock and Crowe 2003
- Figure H-21.11 FR-6, Jim Creek, Parker 1990
- Figure H-21.12 FR-6, Jim Creek, Wilcock and Crowe 2003
- Figure H-21.13 FR-7, Vasquez Creek, Parker 1990
- Figure H-21.14 FR-7, Vasquez Creek, Wilcock and Crowe, 2003
- Figure H-21.15 WF-1, Williams Fork near Sugarloaf Campground, Parker 1990
- Figure H-21.16 WF-1, Williams Fork near Sugarloaf Campground, Wilcock and Crowe 2003
- Figure H-21.17 WF-2, Williams Fork below Steelman Creek, Parker 1990
- Figure H-21.18 WF-2, Williams Fork below Steelman Creek, Wilcock and Crowe 2003
- Figure H-21.19 CR-1, Colorado River above Parshall, Parker 1990
- Figure H-21.20 CR-1, Colorado River above Parshall, Wilcock and Crowe 2003
- Figure H-21.21 CR-2, Colorado River at Kemp Breeze State Wildlife Area, Parker 1990
- Figure H-21.22 CR-2, Colorado River at Kemp Breeze State Wildlife Area, Wilcock and Crowe 2003
- Figure H-21.23 BR-1, Blue River below Boulder Creek, Parker 1990
- Figure H-21.24 BR-1, Blue River below Boulder Creek, Wilcock and Crowe 2003

Appendix H-21
Phase 2 Sediment Transport Graphs

- Figure H-21.25 NF-1, North Fork South Platte near Shawnee, Parker 1990
- Figure H-21.26 NF-1, North Fork South Platte near Shawnee, Wilcock and Crowe 2003
- Figure H-21.27 NF-2, North Fork South Platte near Pine, Parker 1990
- Figure H-21.28 NF-2, North Fork South Platte near Pine, Wilcock and Crowe 2003
- Figure H-21.29 SBC-1, South Boulder Creek above Rollinsville, Parker 1990
- Figure H-21.30 SBC-1, South Boulder Creek above Rollinsville, Wilcock and Crowe 2003
- Figure H-21.31 SBC-3, South Boulder Creek below Gross Reservoir, Parker 1990
- Figure H-21.32 SBC-3, South Boulder Creek below Gross Reservoir, Wilcock and Crowe 2003

Table H21.1
Grain Size Classification

Grain Size Classification

Name	Symbol	Lower Bound Size (mm)	Upper Bound Size (mm)	Mean Diameter (mm)
Clay	C	0.002	0.004	0.003
Very Fine Silt	VFM	0.004	0.008	0.006
Fine Silt	FM	0.008	0.016	0.011
Medium Silt	MM	0.016	0.031	0.023
Coarse Silt	CM	0.032	0.063	0.045
Very Fine Sand	VFS	0.064	0.125	0.088
Fine Sand	FS	0.128	0.250	0.177
Medium Sand	MS	0.26	0.500	0.354
Coarse Sand	CS	0.51	1	0.707
Very Coarse Sand	VCS	1	2	1.41
Very Fine Gravel	VFG	2	4	2.83
Fine Gravel	FG	4	8	5.66
Medium Gravel	MG	8	16	11.3
Coarse Gravel	CG	16	32	22.6
Very Coarse Gravel	VCG	33	64	45.3
Small Cobble	SC	66	128	90.5
Large Cobble	LC	128	256	181
Small Boulder	SB	256	512	362
Medium Boulder	MB	512	1024	724
Large Boulder	LB	1024	2048	1448

Default grain classes as used by HEC-RAS software

Appendix H-21
Phase 2 Sediment Transport Graphs

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Figure H-21.1
FR-1, Fraser River near Winter Park Gage, Parker 1990

Study Area:	FR1 - Fraser River near Winter Park Gage	**Transport Equation:**	Parker 1990
Cross Section:	XC-4	**Average Slope:**	0.01005 ft/ft
Section Type:	Average	**Manning's n:**	0.072

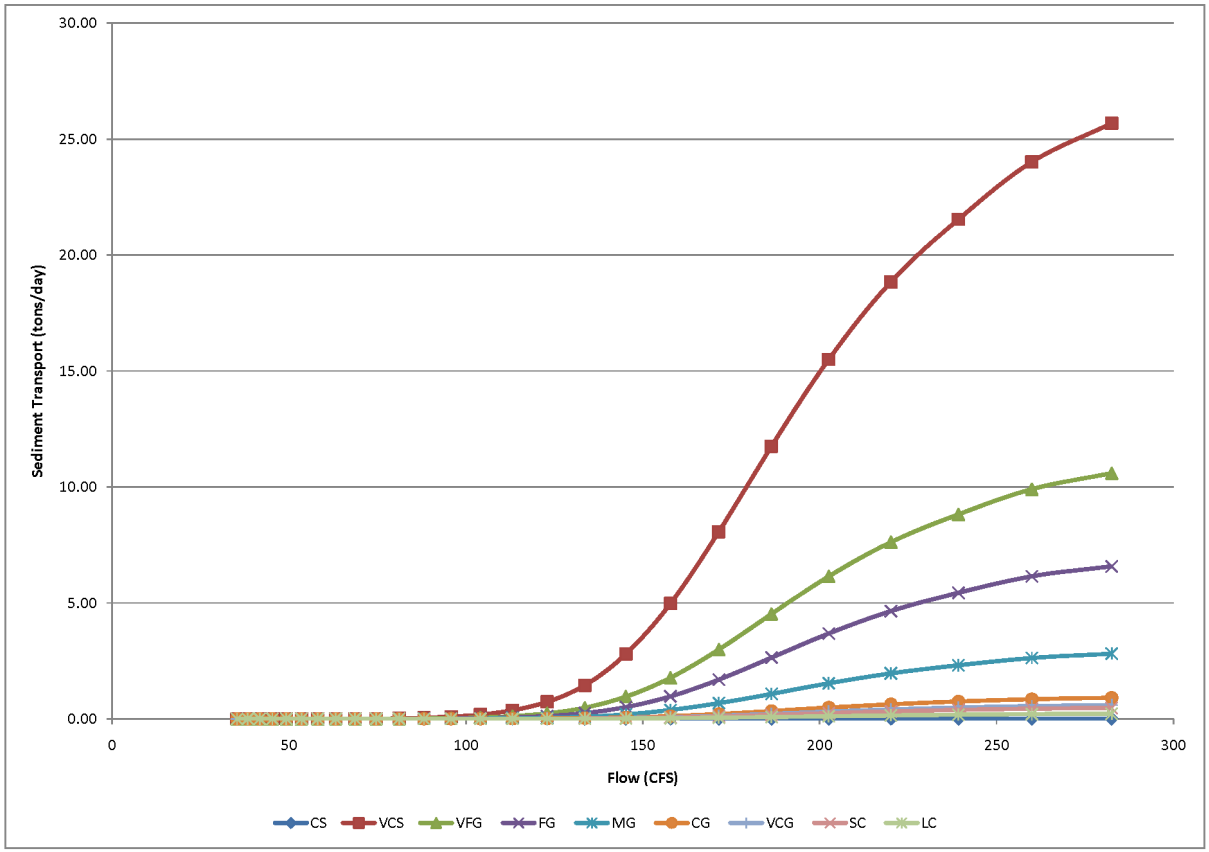


Figure H-21.2
FR-1, Fraser River near Winter Park Gage, Wilcock and Crowe 2003

Study Area: FR1 - Fraser River near Winter Park Gage
Cross Section: XC-4
Section Type: Average

Transport Equation: Wilcock and Crowe 2003
Average Slope: 0.01005 ft/ft
Manning's n: 0.072

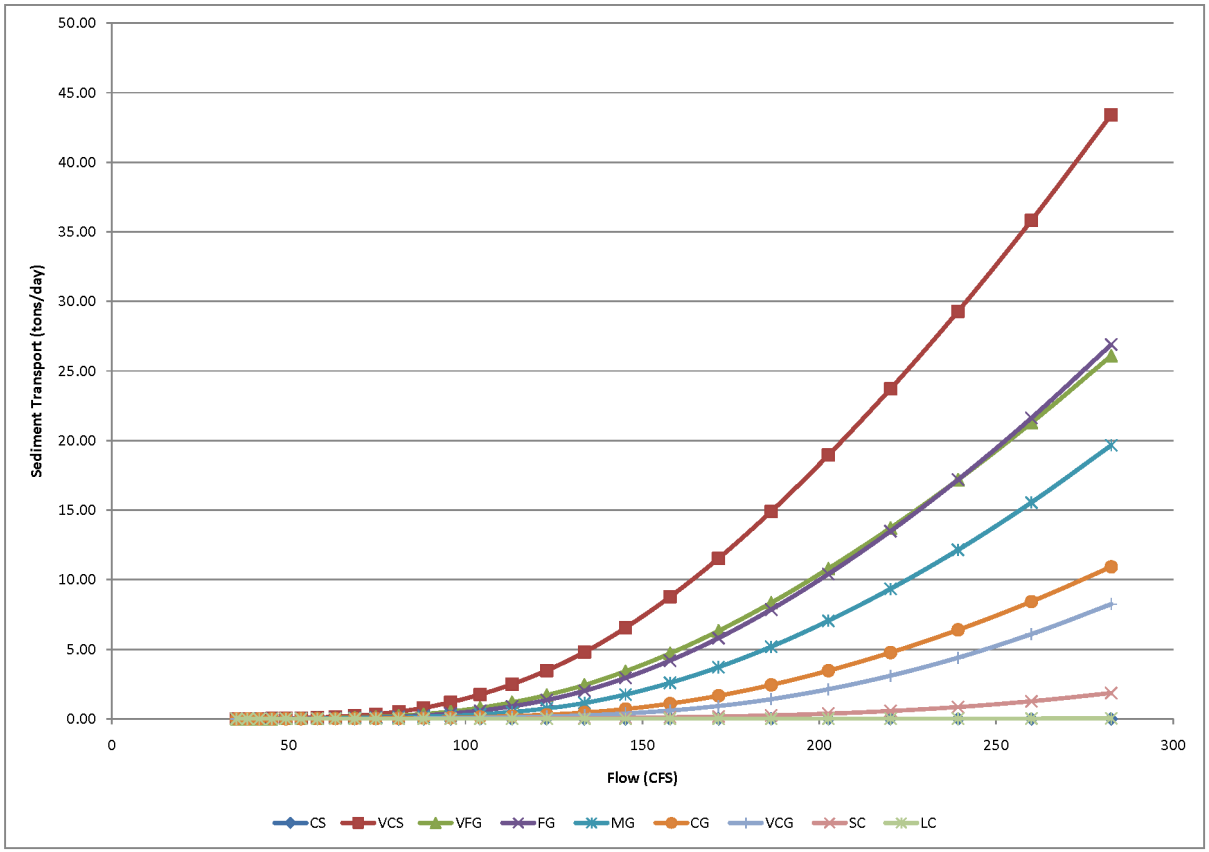


Figure H-21.3
FR-2, Fraser River near Tabernash, Parker 1990

Study Area:	FR2 - Fraser River Tabernash	**Transport Equation:**	Parker 1990
Cross Section:	XC-5	**Average Slope:**	0.00483 ft/ft
Section Type:	Average	**Manning's n:**	0.033

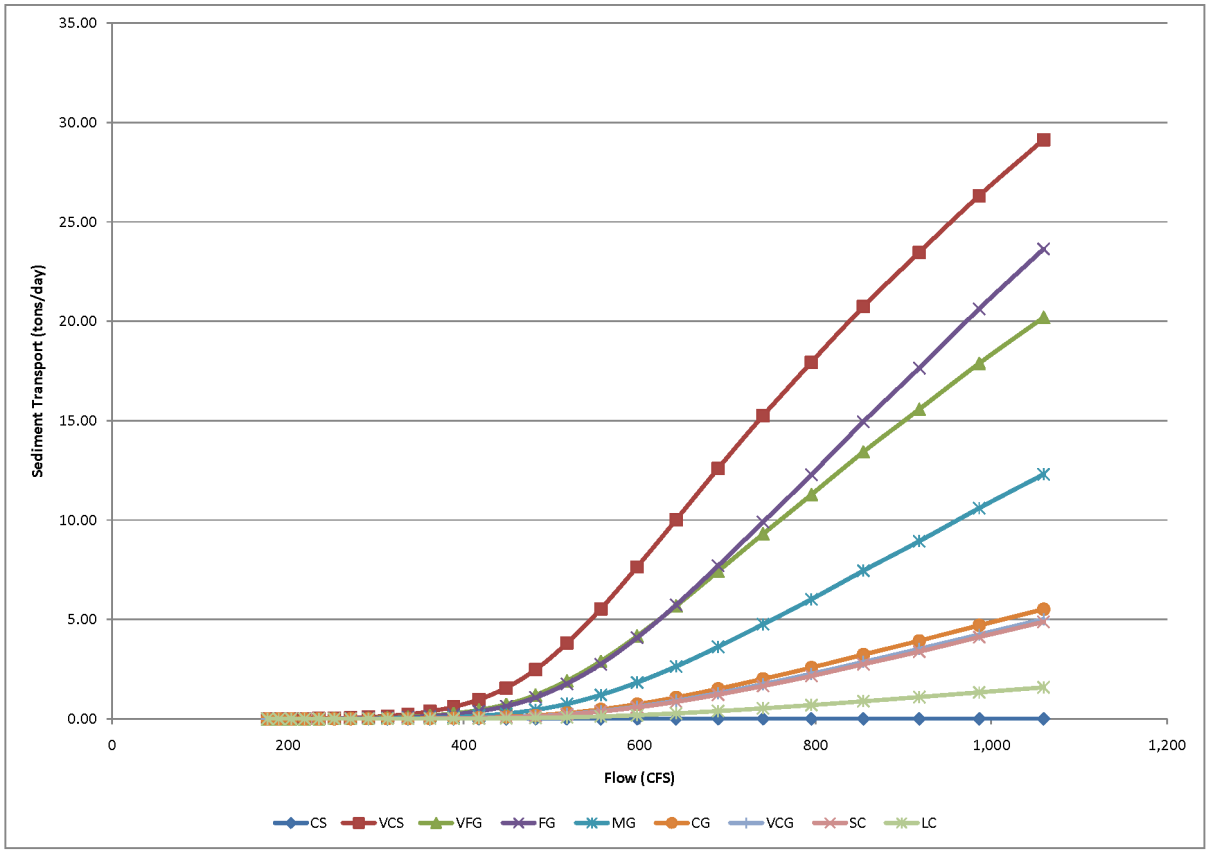


Figure H-21.4
FR-2, Fraser River near Tabernash, Wilcock and Crowe 2003

Study Area: FR2 - Fraser River Tabernash
Cross Section: XC-5
Section Type: Average

Transport Equation: Wilcock and Crowe 2003
Average Slope: 0.00483 ft/ft
Manning's n: 0.033

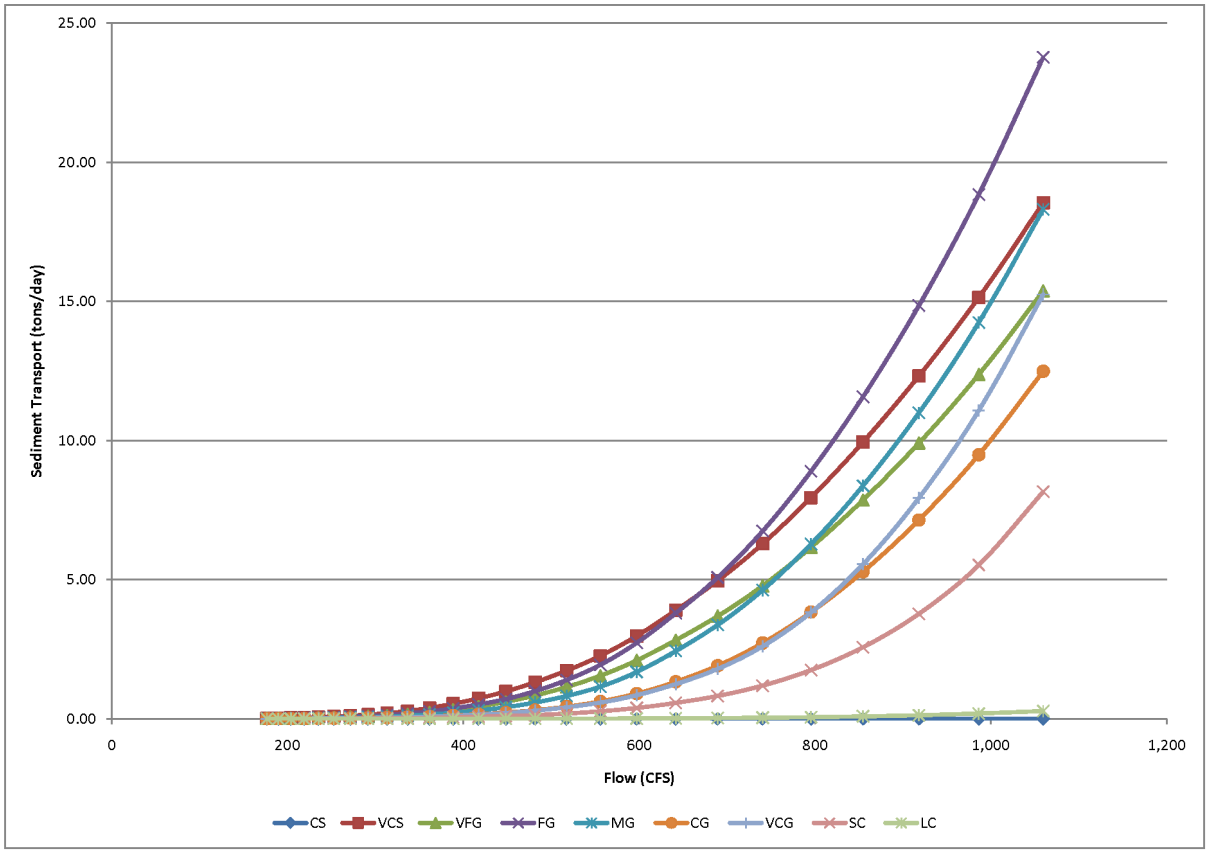


Figure H-21.5
FR-3, St. Louis Creek, Parker 1990

Study Area:	FR3 - St. Louis Creek	**Transport Equation:**	Parker 1990
Cross Section:	XC-6	**Average Slope:**	0.02262 ft/ft
Section Type:	Average	**Manning's n:**	0.077

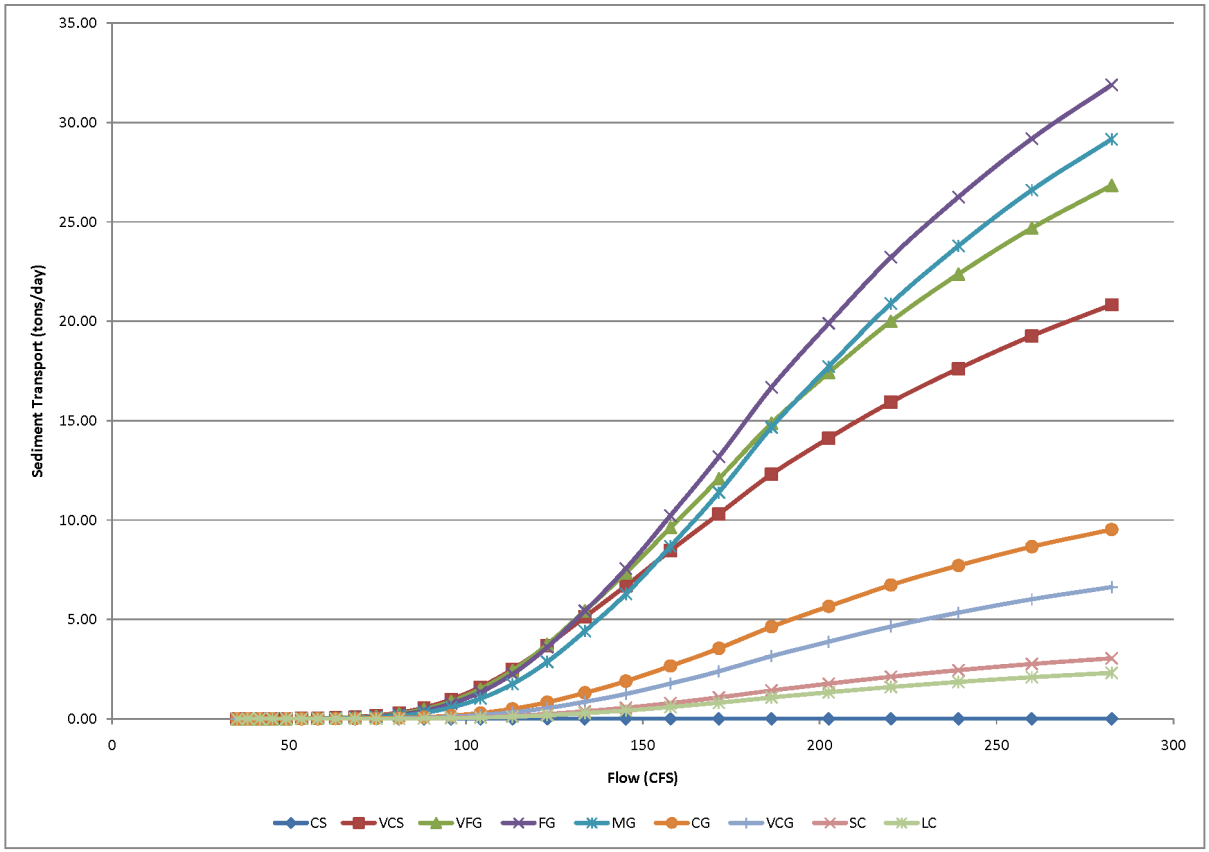


Figure H-21.6
FR-3, St. Louis Creek, Wilcock and Crowe 2003

Study Area: FR3 - St. Louis Creek
Cross Section: XC-6
Section Type: Average

Transport Equation: Wilcock and Crowe 2003
Average Slope: 0.02262 ft/ft
Manning's n: 0.077

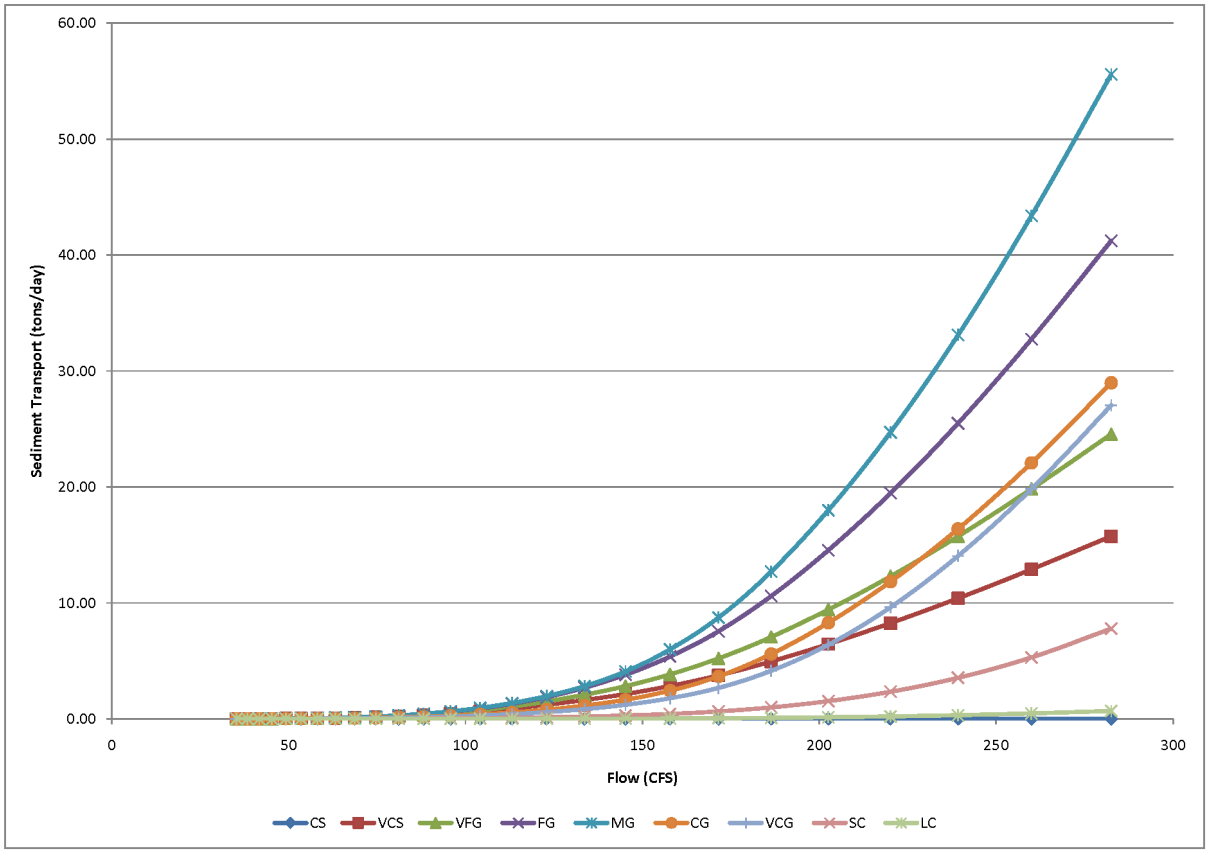


Figure H-21.7
FR-4, Ranch Creek, Parker 1990

Study Area:	FR4 - Ranch Creek	**Transport Equation:**	Parker 1990
Cross Section:	XC-5	**Average Slope:**	0.07542 ft/ft
Section Type:	Average	**Manning's n:**	0.1

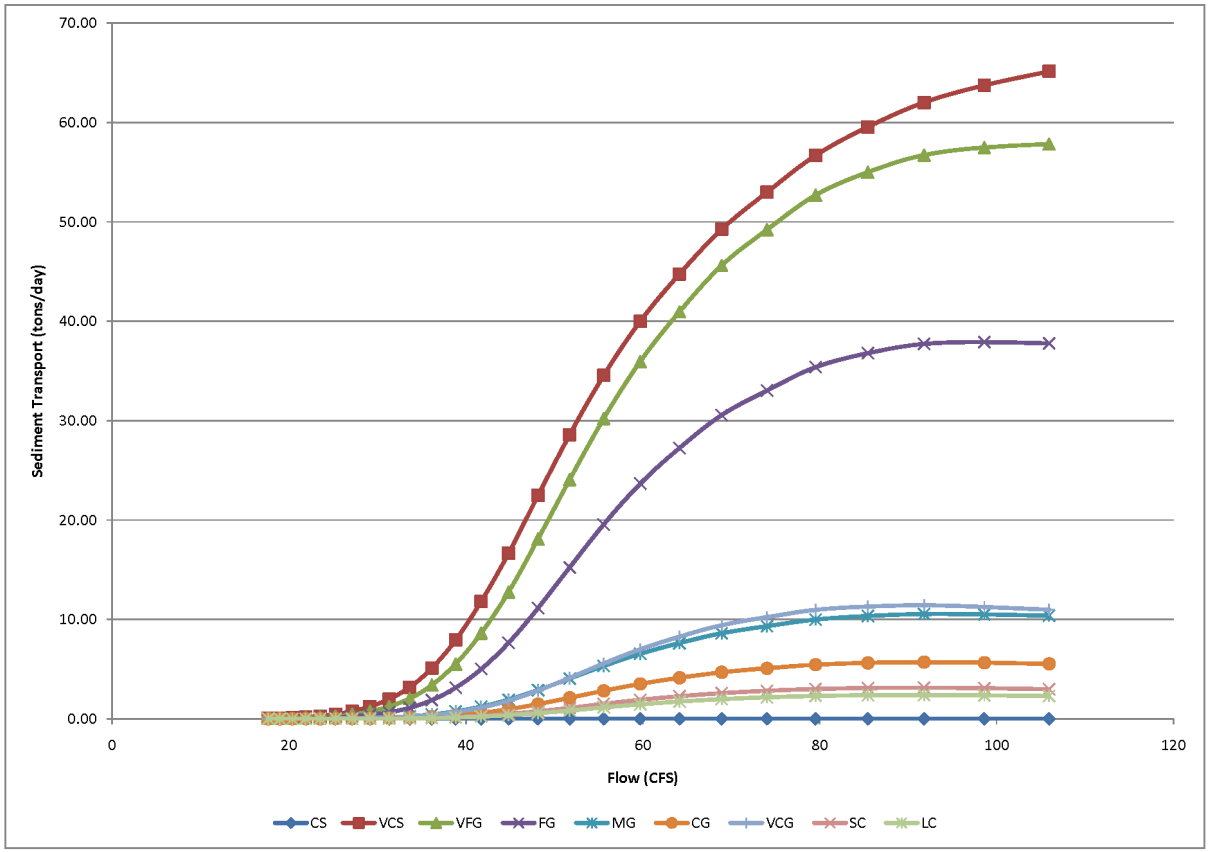


Figure H-21.8
FR-4, Ranch Creek, Wilcock and Crowe 2003

Study Area: FR4 - Ranch Creek
Cross Section: XC-5
Section Type: Average

Transport Equation: Wilcock and Crowe 2003
Average Slope: 0.07542 ft/ft
Manning's n: 0.1

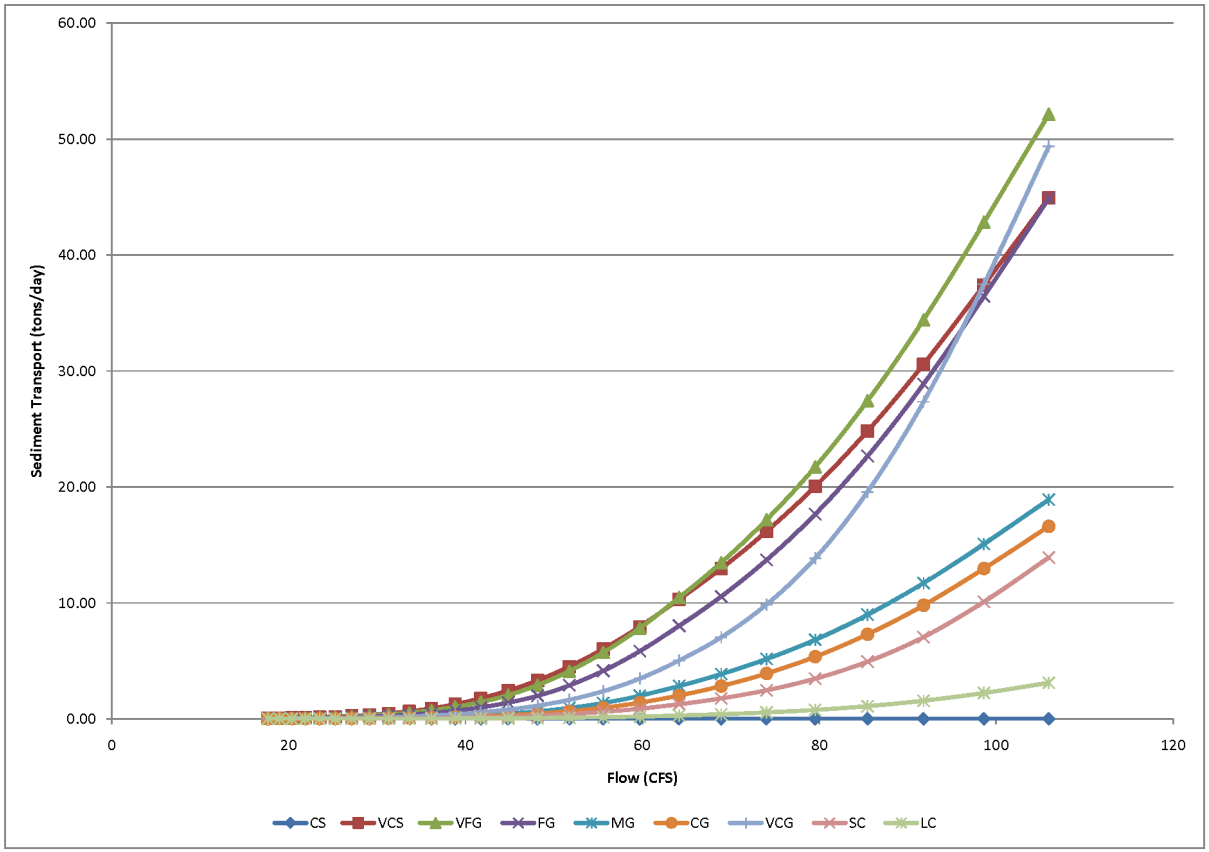


Figure H-21.9
FR-5, Fraser River Downstream of Denver Water's Diversion, Parker 1990

Study Area:	FR5 - Fraser River Downstream of Dever Water's Diversion	**Transport Equation:**	Parker 1990
Cross Section:	XC-9	**Average Slope:**	0.01608 ft/ft
Section Type:	Average	**Manning's n:**	0.07389

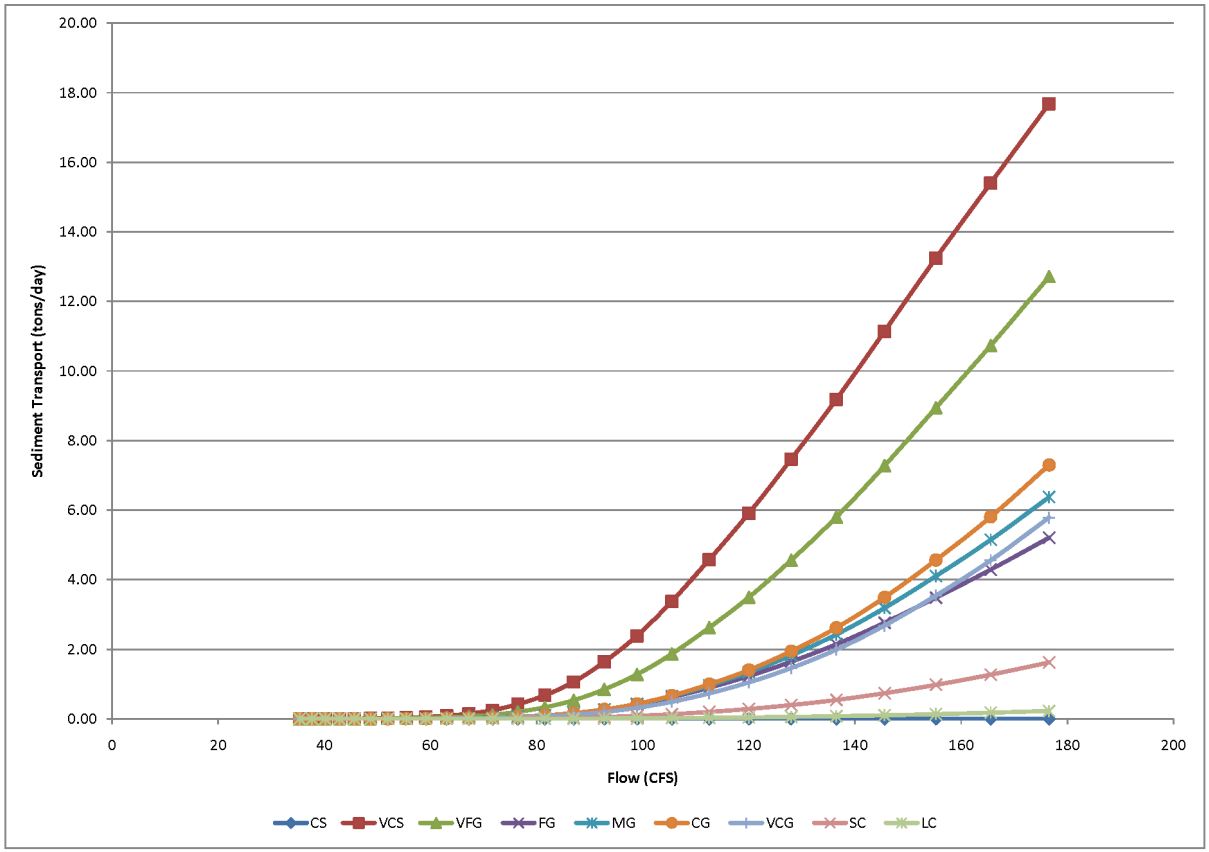


Figure H-21.10
FR-5, Fraser River Downstream of Denver Water's Diversion, Wilcock and Crowe 2003

Study Area: FR5 - Fraser River Downstream of Dever Water's Diversion
Cross Section: XC-9
Section Type: Average

Transport Equation: Wilcock and Crowe 2003
Average Slope: 0.01608 ft/ft
Manning's n: 0.07389

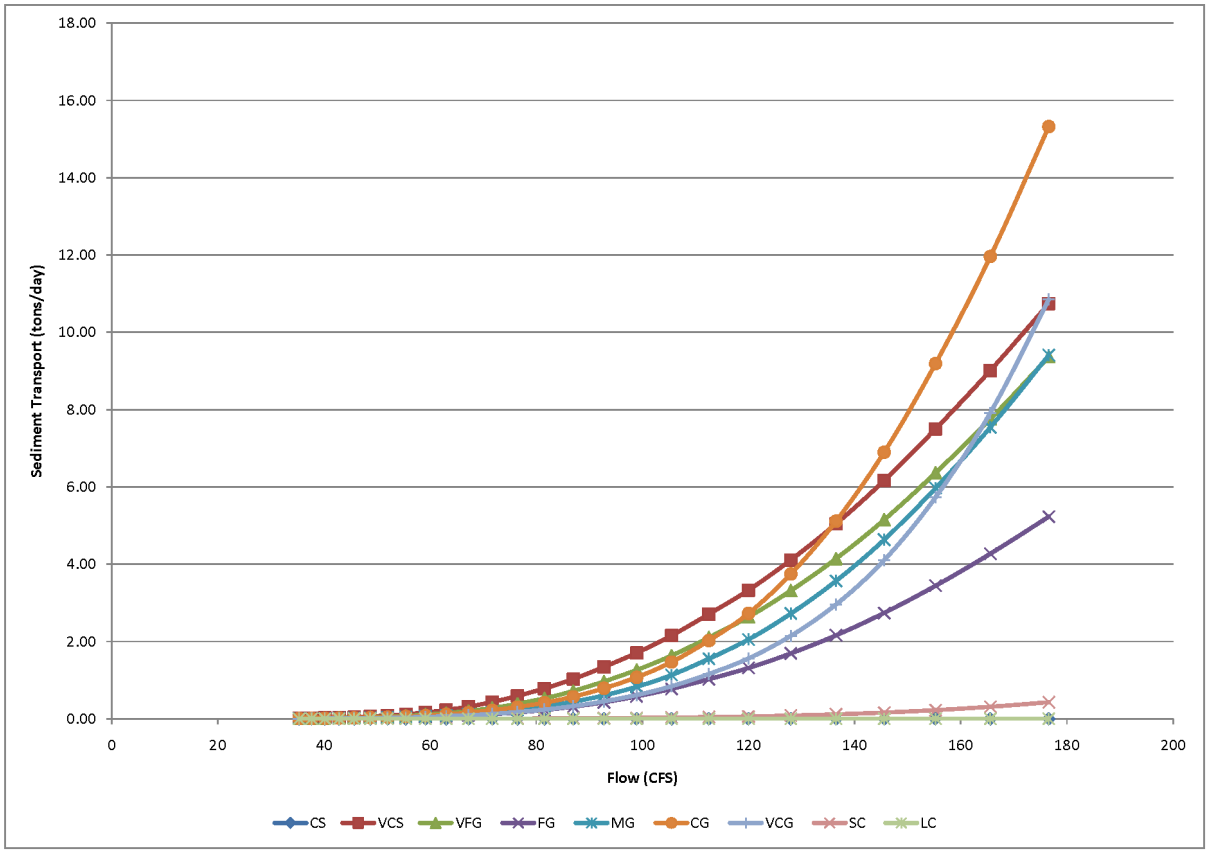


Figure H-21.11
FR-6, Jim Creek, Parker 1990

Study Area:	FR6 - Jim Creek	**Transport Equation:**	Parker 1990
Cross Section:	XC-8	**Average Slope:**	0.04646 ft/ft
Section Type:	Average	**Manning's n:**	0.12244

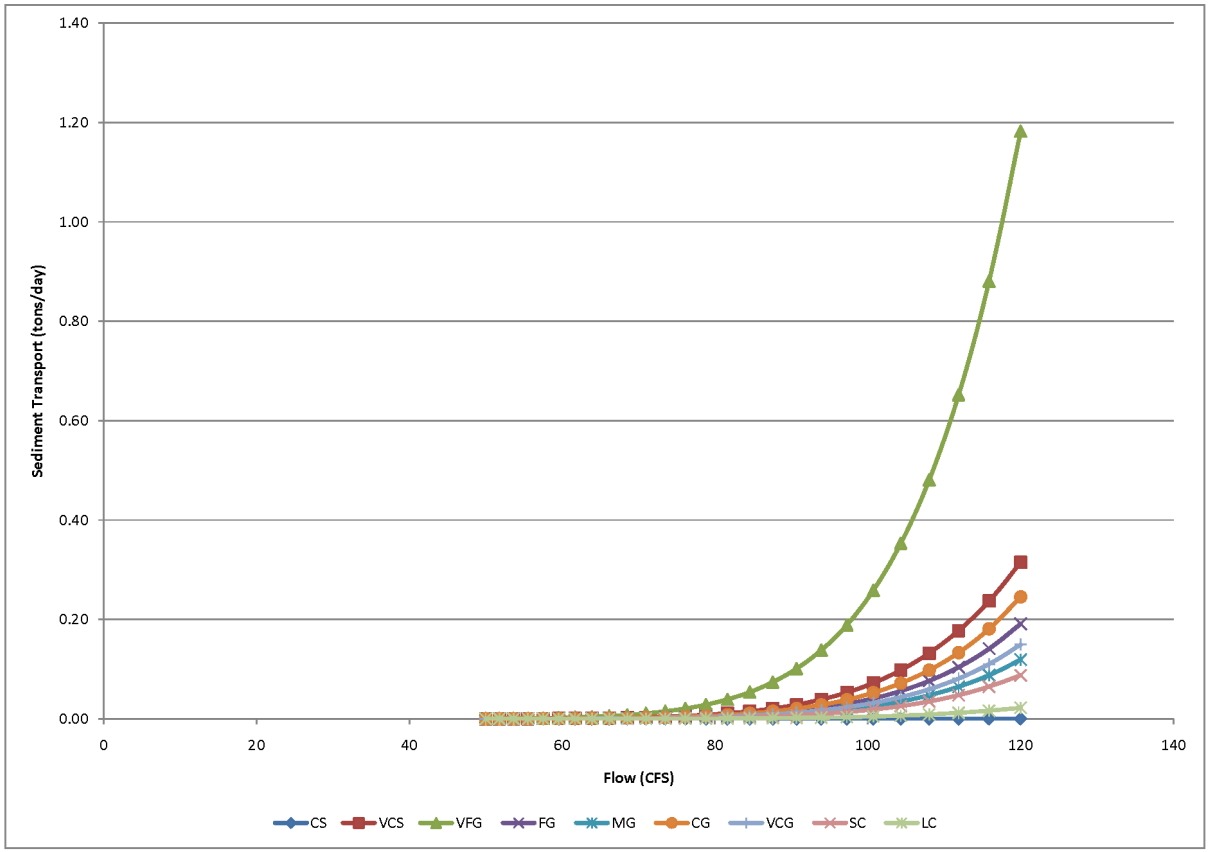


Figure H-21.12
FR-6, Jim Creek, Wilcock and Crowe 2003

Study Area: FR6 - Jim Creek
Cross Section: XC-8
Section Type: Average

Transport Equation: Wilcock and Crowe 2003
Average Slope: 0.04646 ft/ft
Manning's n: 0.12244

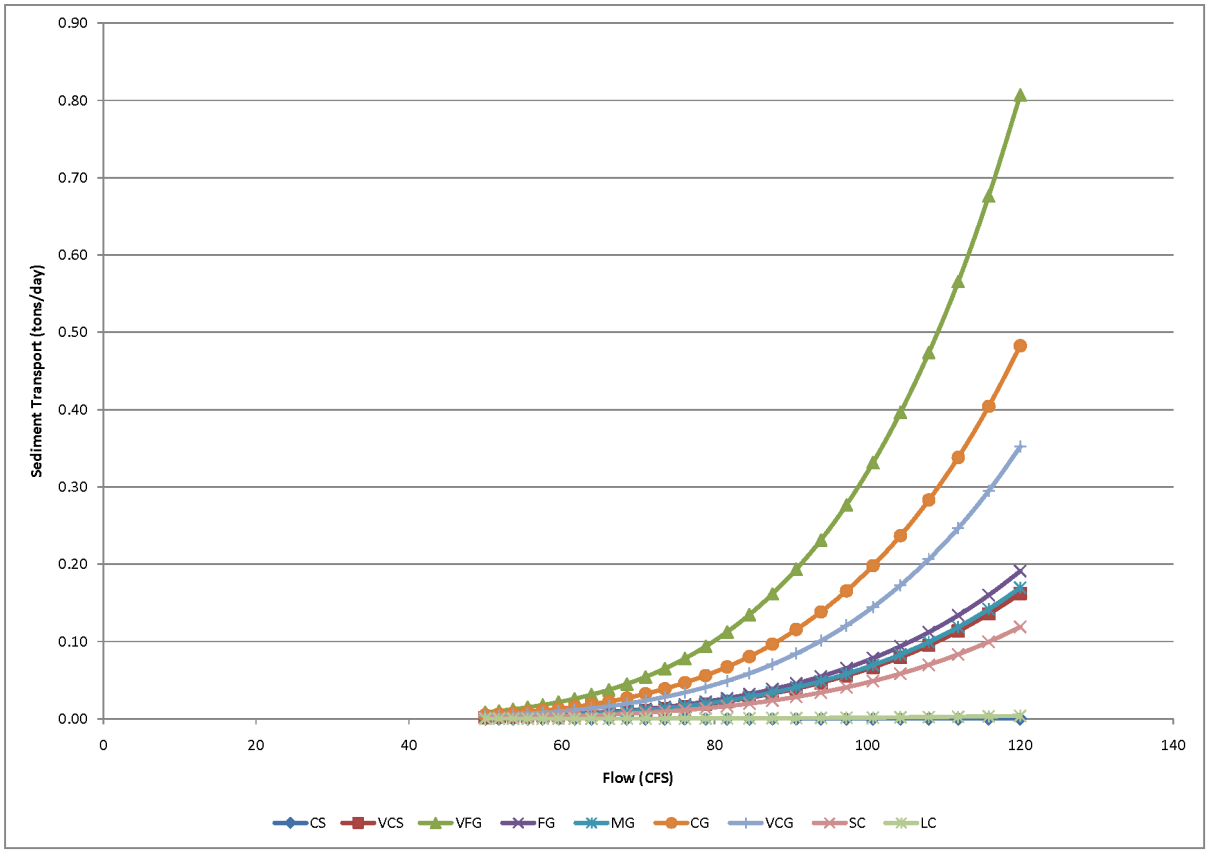


Figure H-21.13
FR-7, Vasquez Creek, Parker 1990

Study Area: FR7 - Vasquez Creek
Cross Section: XC-6
Section Type: Average

Transport Equation: Parker 1990
Average Slope: 0.01239 ft/ft
Manning's n: 0.07007

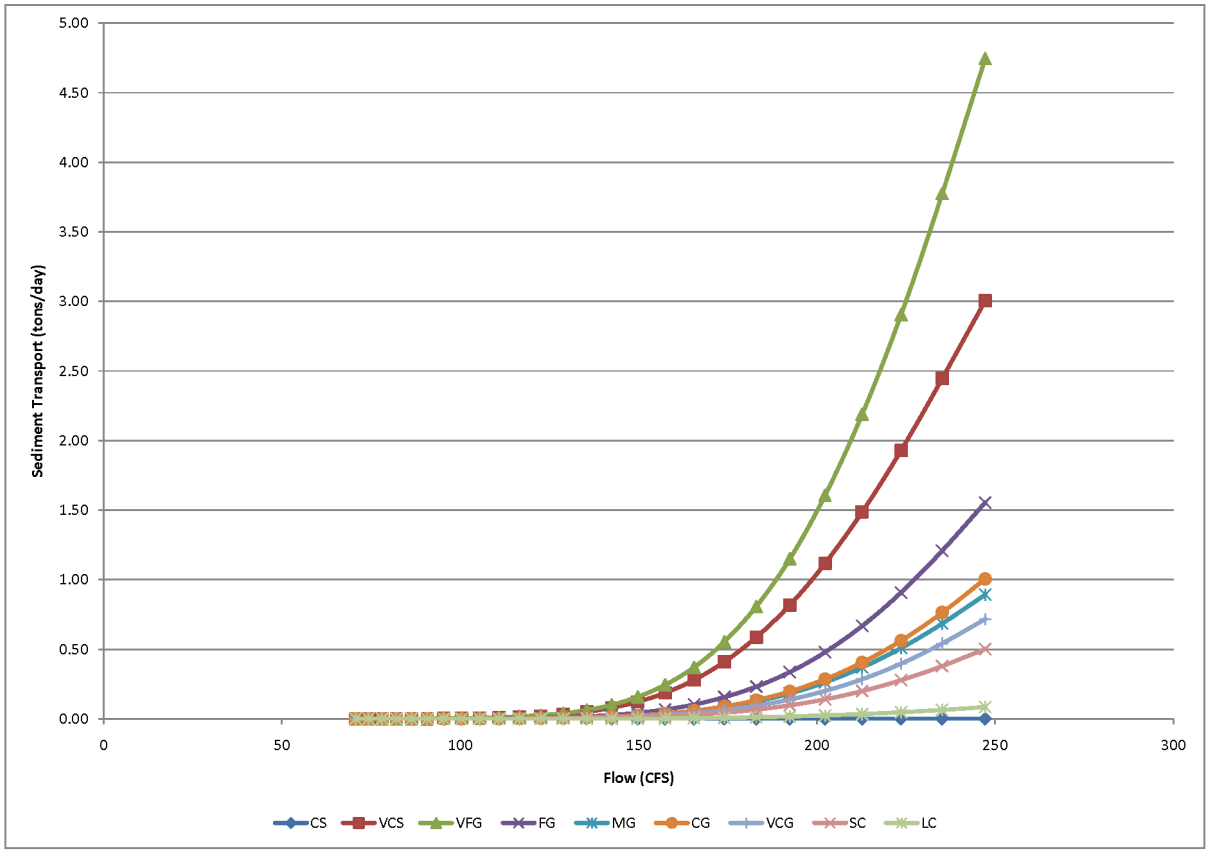


Figure H-21.14
FR-7, Vasquez Creek, Wilcock and Crowe, 2003

Study Area: FR7 - Vasquez Creek
Cross Section: XC-6
Section Type: Average

Transport Equation: Wilcock and Crowe 2003
Average Slope: 0.01239 ft/ft
Manning's n: 0.07007

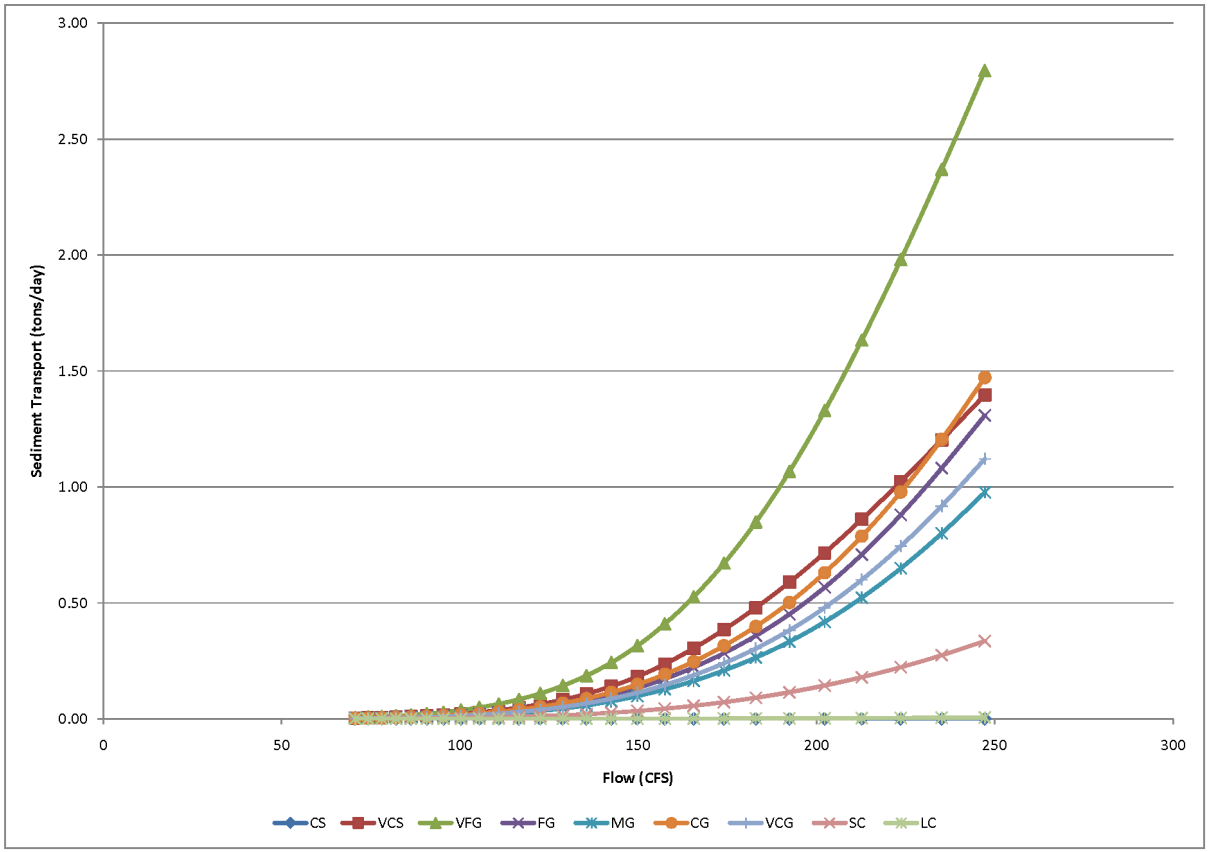


Figure H-21.15
WF-1, Williams Fork near Sugarloaf Campground, Parker 1990

Study Area:	WF1 - Williams Fork near Sugarloaf Campground	**Transport Equation:**	Parker 1990
Cross Section:	XC-4	**Average Slope:**	0.01345 ft/ft
Section Type:	Average	**Manning's n:**	0.066

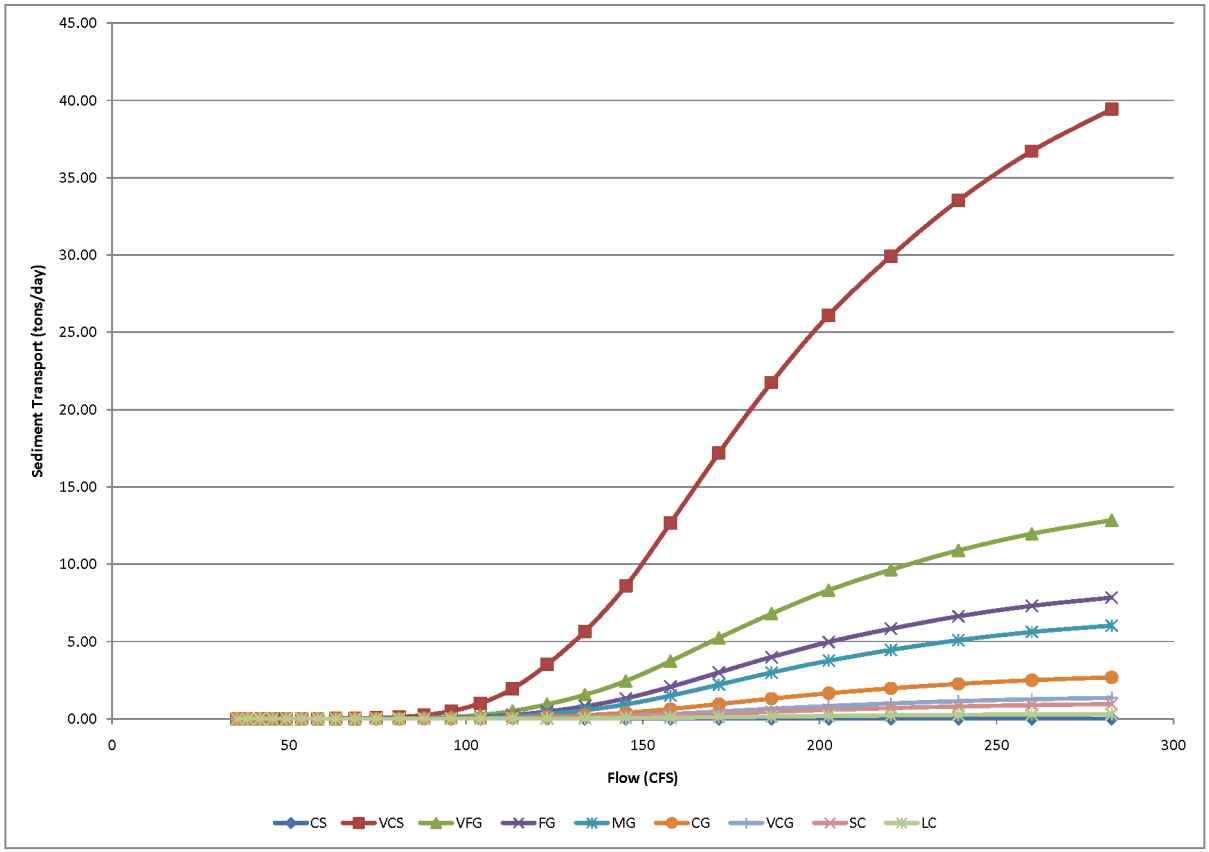


Figure H-21.16
WF-1, Williams Fork near Sugarloaf Campground, Wilcock and Crowe 2003

Study Area: WF1 - Williams Fork near Sugarloaf Campground
Cross Section: XC-4
Section Type: Average

Transport Equation: Wilcock and Crowe 2003
Average Slope: 0.01345 ft/ft
Manning's n: 0.066

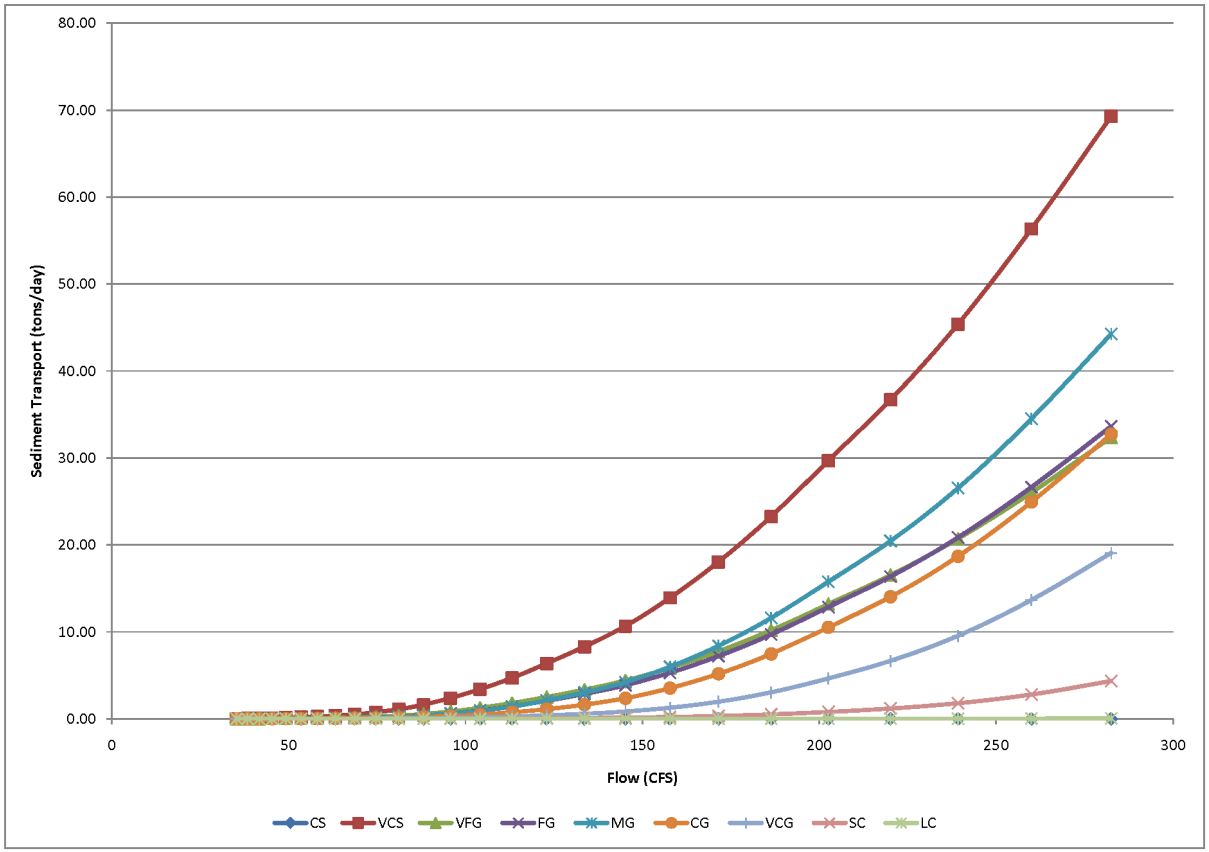


Figure H-21.17
WF-2, Williams Fork below Steelman Creek, Parker 1990

Study Area:	WF2 - Williams Fork below Steelman Creek	**Transport Equation:**	Parker 1990
Cross Section:	XC-7	**Average Slope:**	0.02425 ft/ft
Section Type:	Average	**Manning's n:**	0.083

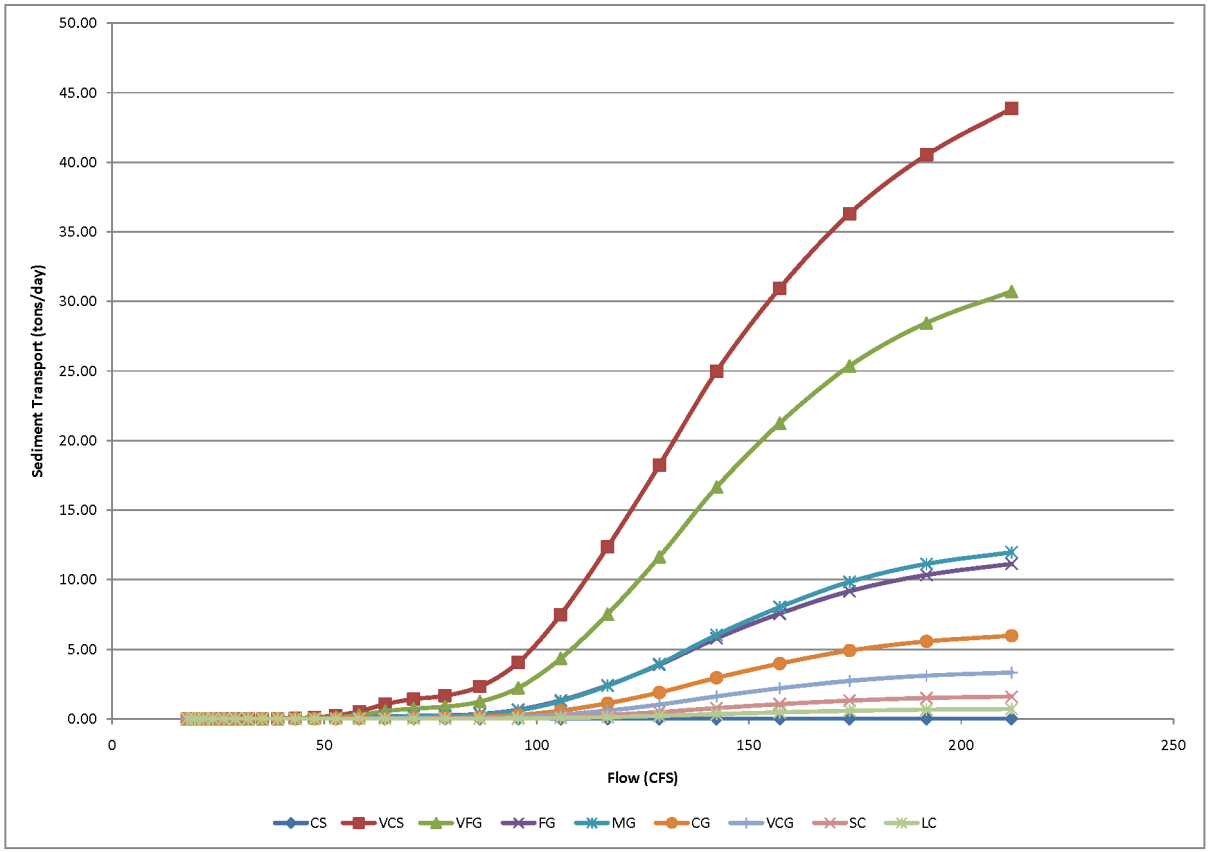


Figure H-21.18
WF-2, Williams Fork below Steelman Creek, Wilcock and Crowe 2003

Study Area: WF2 - Williams Fork below Steelman Creek
Cross Section: XC-7
Section Type: Average

Transport Equation: Wilcock and Crowe 2003
Average Slope: 0.02425 ft/ft
Manning's n: 0.083

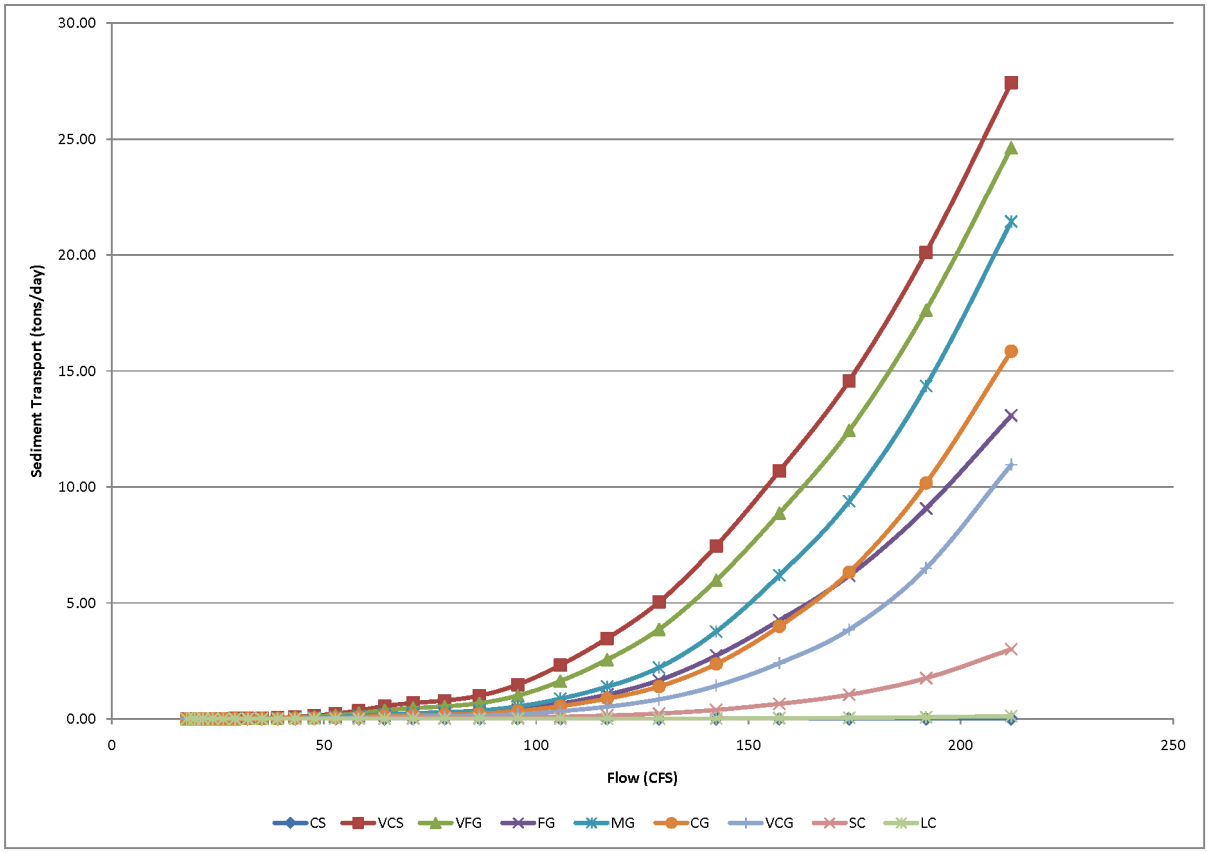


Figure H-21.19
CR-1, Colorado River above Parshall, Parker 1990

Study Area:	CR1 - Colorado River above Parshall	**Transport Equation:**	Parker 1990
Cross Section:	XC-2	**Average Slope:**	0.00255 ft/ft
Section Type:	Average	**Manning's n:**	0.035

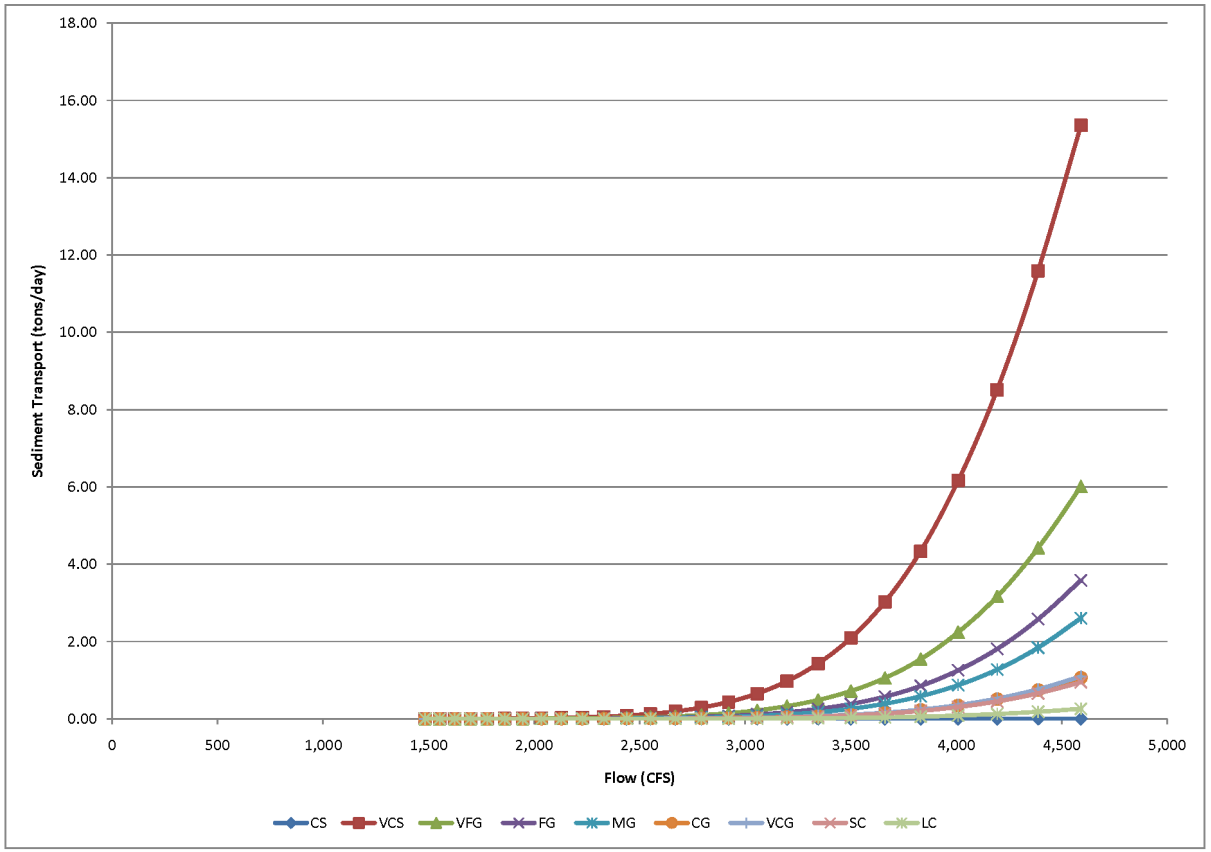


Figure H-21.20
CR-1, Colorado River above Parshall, Wilcock and Crowe 2003

Study Area: CR1 - Colorado River above Parshall
Cross Section: XC-2
Section Type: Average

Transport Equation: Wilcock and Crowe 2003
Average Slope: 0.00255 ft/ft
Manning's n: 0.035

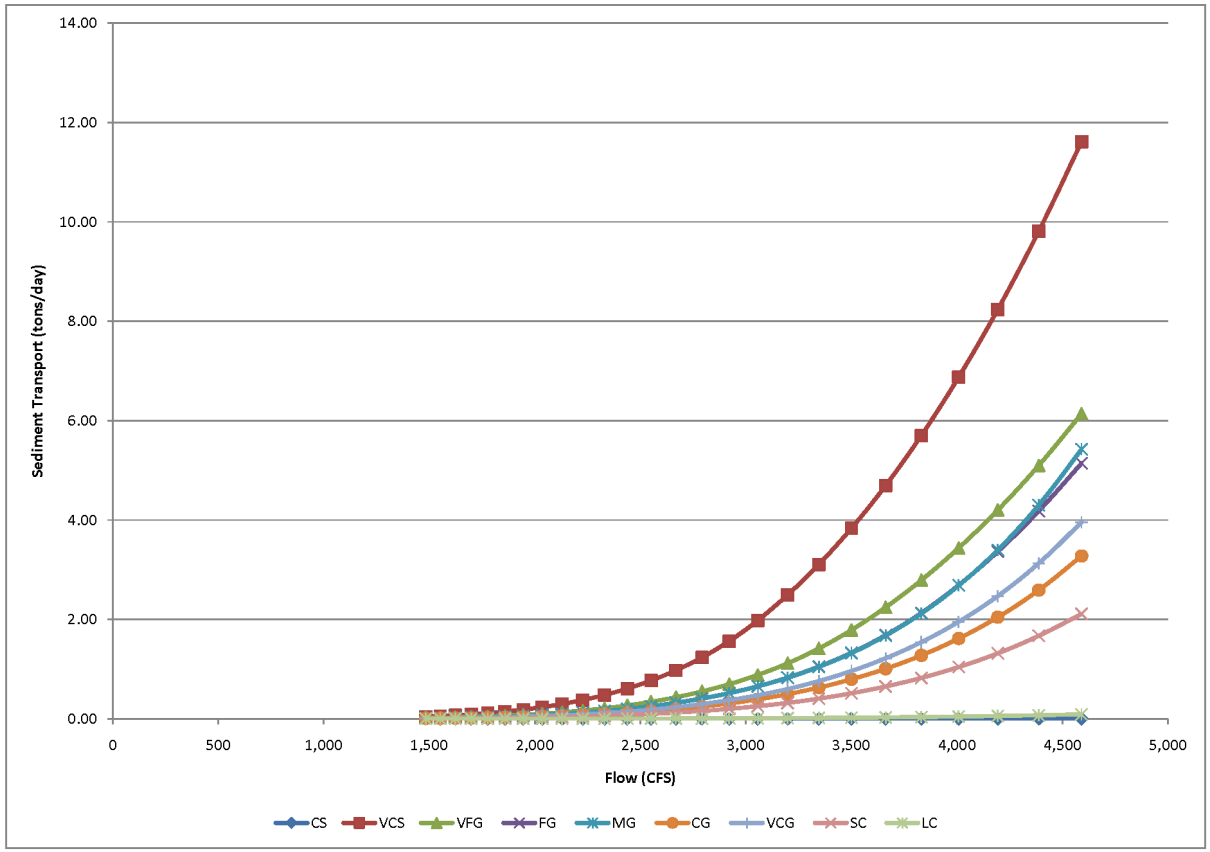


Figure H-21.21
CR-2, Colorado River at Kemp Breeze State Wildlife Area, Parker 1990

Study Area:	CR2 - Colorado River at Kemp Breeze State Wildlife Area	**Transport Equation:**	Parker 1990
Cross Section:	XC-6	**Average Slope:**	0.00438 ft/ft
Section Type:	Average	**Manning's n:**	0.04321

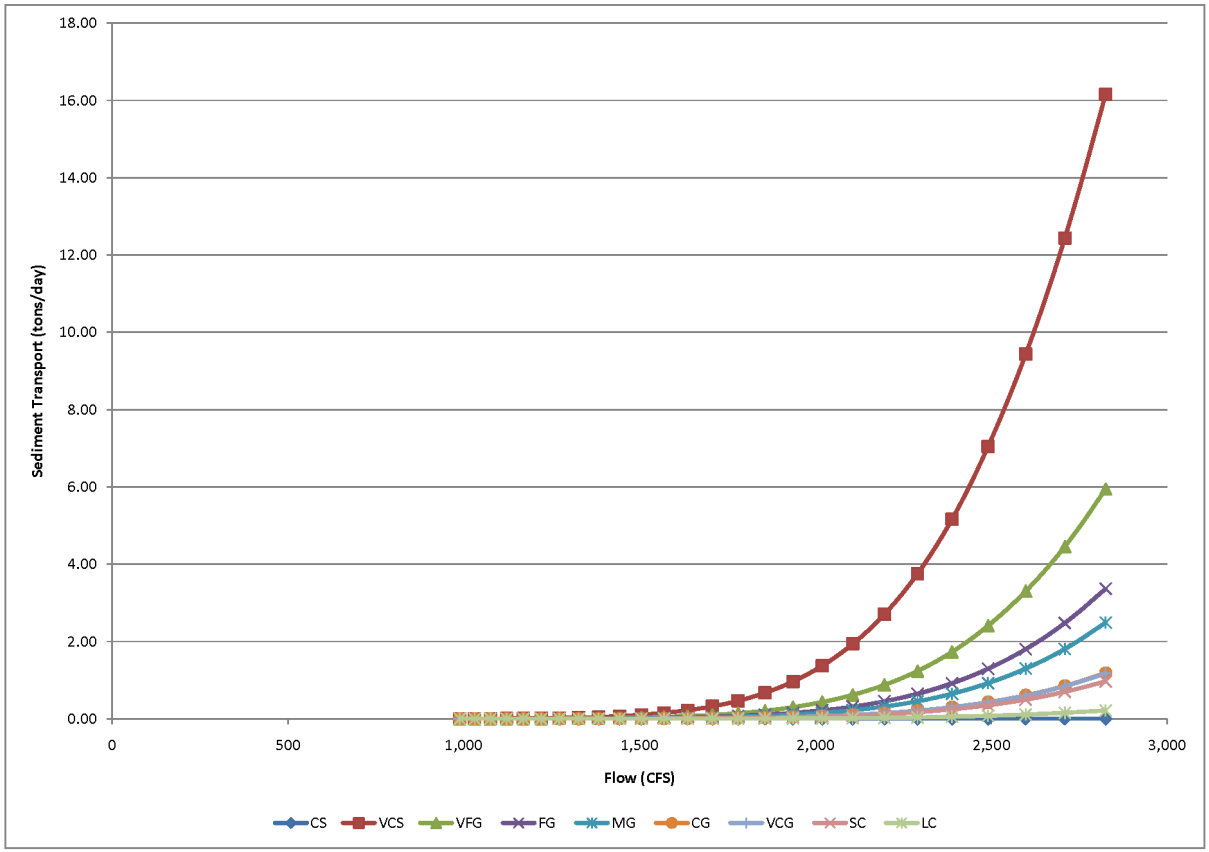


Figure H-21.22
CR-2, Colorado River at Kemp Breeze State Wildlife Area, Wilcock and Crowe 2003

Study Area: CR2 - Colorado River at Kemp Breeze State Wildlife Area
Cross Section: XC-6
Section Type: Average

Transport Equation: Wilcock and Crowe 2003
Average Slope: 0.00438 ft/ft
Manning's n: 0.04321

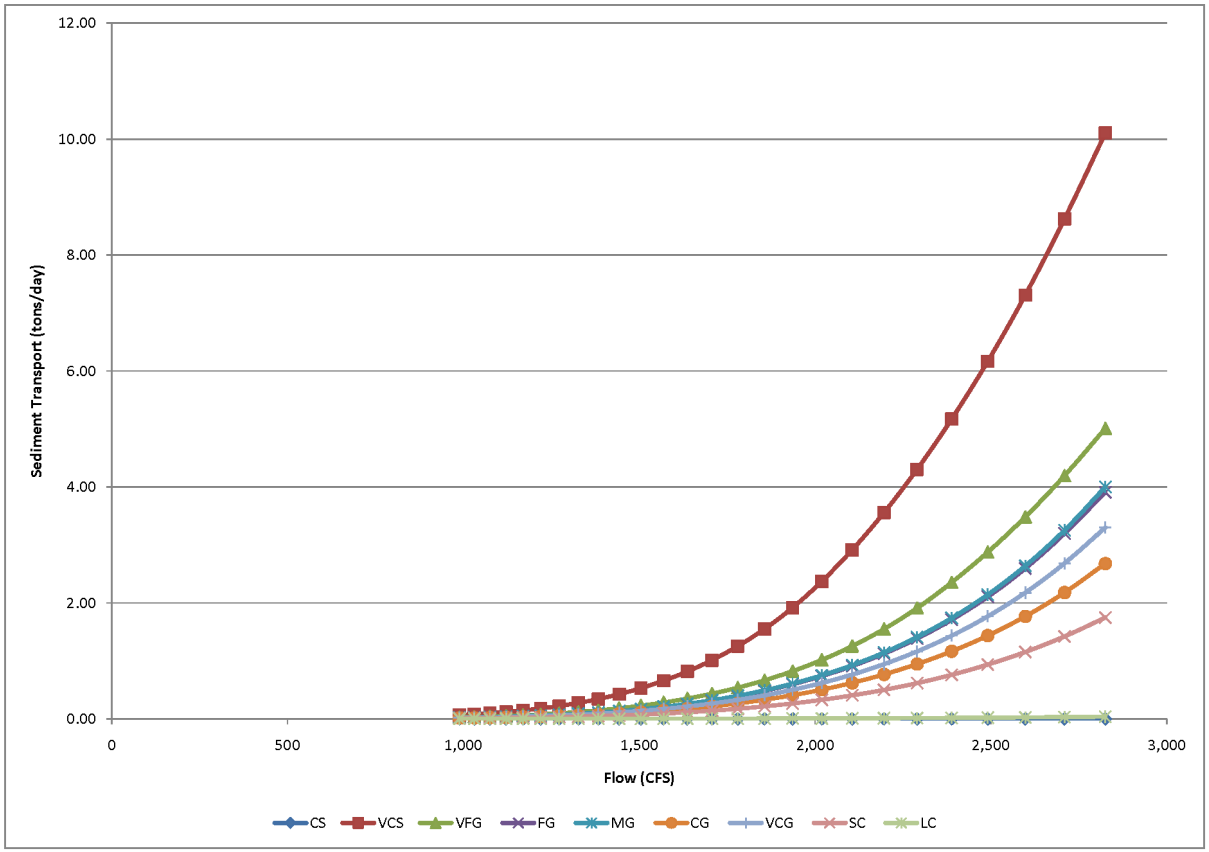


Figure H-21.23
BR-1, Blue River below Boulder Creek, Parker 1990

Study Area:	BR1 - Blue River below Boulder Creek	**Transport Equation:**	Parker 1990
Cross Section:	XC-8	**Average Slope:**	0.003 ft/ft
Section Type:	Average	**Manning's n:**	0.06545

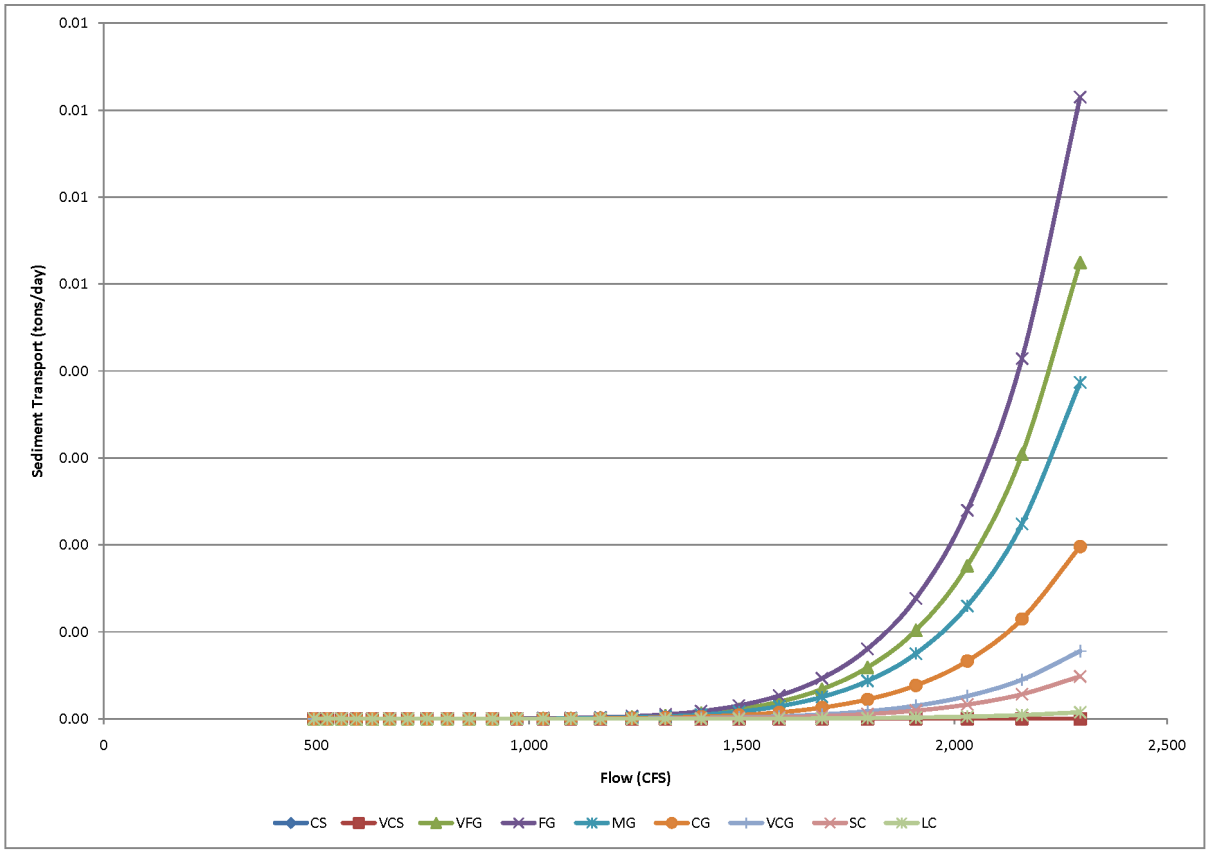


Figure H-21.24
BR-1, Blue River below Boulder Creek, Wilcock and Crowe 2003

Study Area: BR1 - Blue River below Boulder Creek
Cross Section: XC-8
Section Type: Average

Transport Equation: Wilcock and Crowe 2003
Average Slope: 0.003 ft/ft
Manning's n: 0.06545

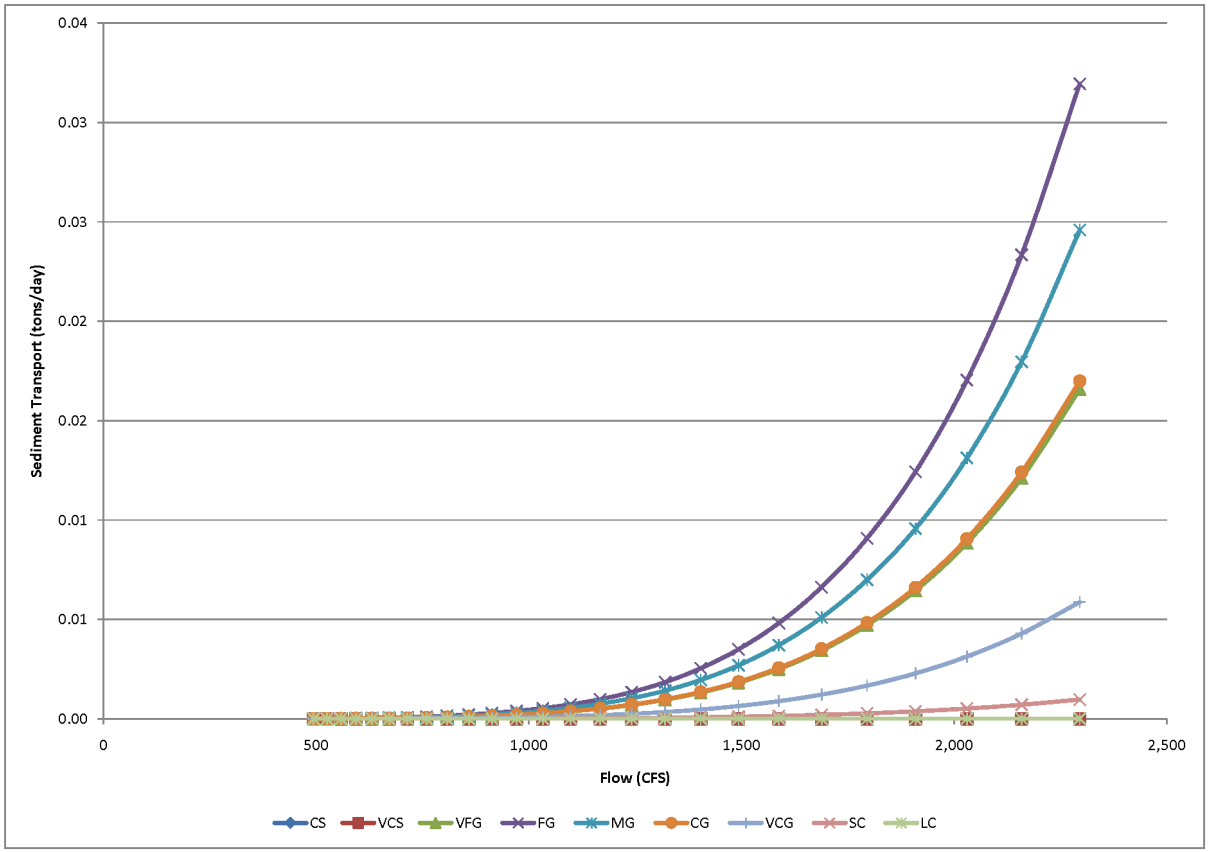


Figure H-21.25
NF-1, North Fork South Platte near Shawnee, Parker 1990

Study Area:	NF1 - North Fork South Platte near Shawnee	**Transport Equation:**	Parker 1990
Cross Section:	XC-6	**Average Slope:**	0.00808 ft/ft
Section Type:	Average	**Manning's n:**	0.05775

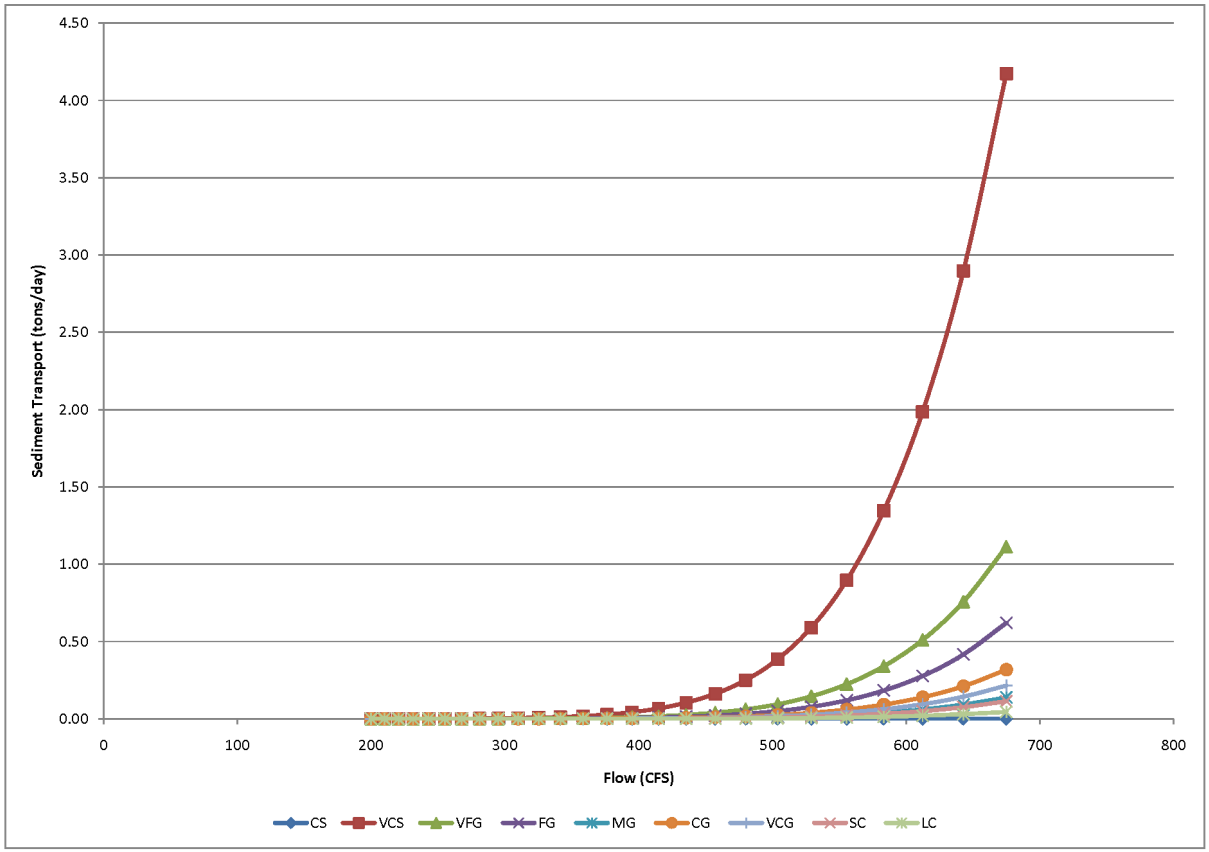


Figure H-21.26
NF-1, North Fork South Platte near Shawnee, Wilcock and Crowe 2003

Study Area: NF1 - North Fork South Platte near Shawnee
Cross Section: XC-6
Section Type: Average

Transport Equation: Wilcock and Crowe 2003
Average Slope: 0.00808 ft/ft
Manning's n: 0.05775

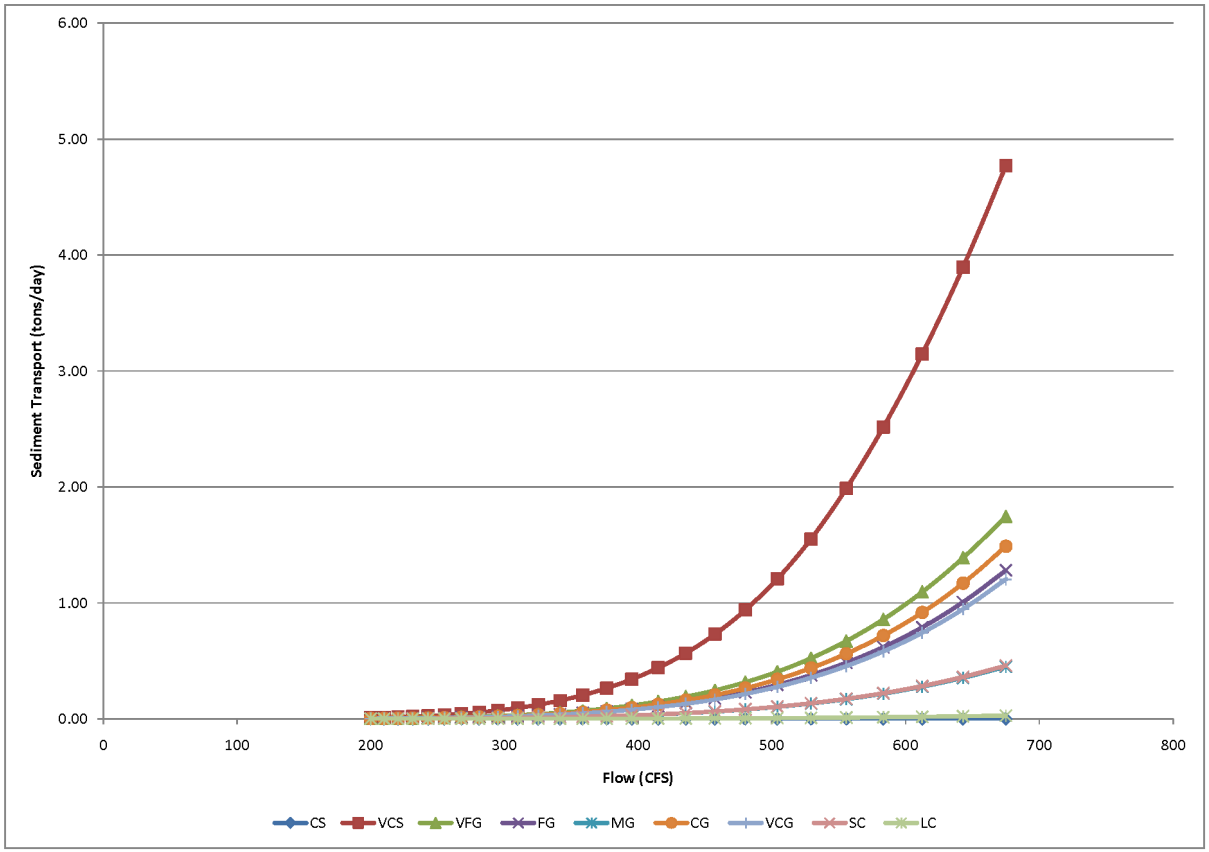


Figure H-21.27
NF-2, North Fork South Platte near Pine, Parker 1990

Study Area:	NF2 - North Fork South Platte near Pine	**Transport Equation:**	Parker 1990
Cross Section:	XC-4	**Average Slope:**	0.00649 ft/ft
Section Type:	Average	**Manning's n:**	0.0538

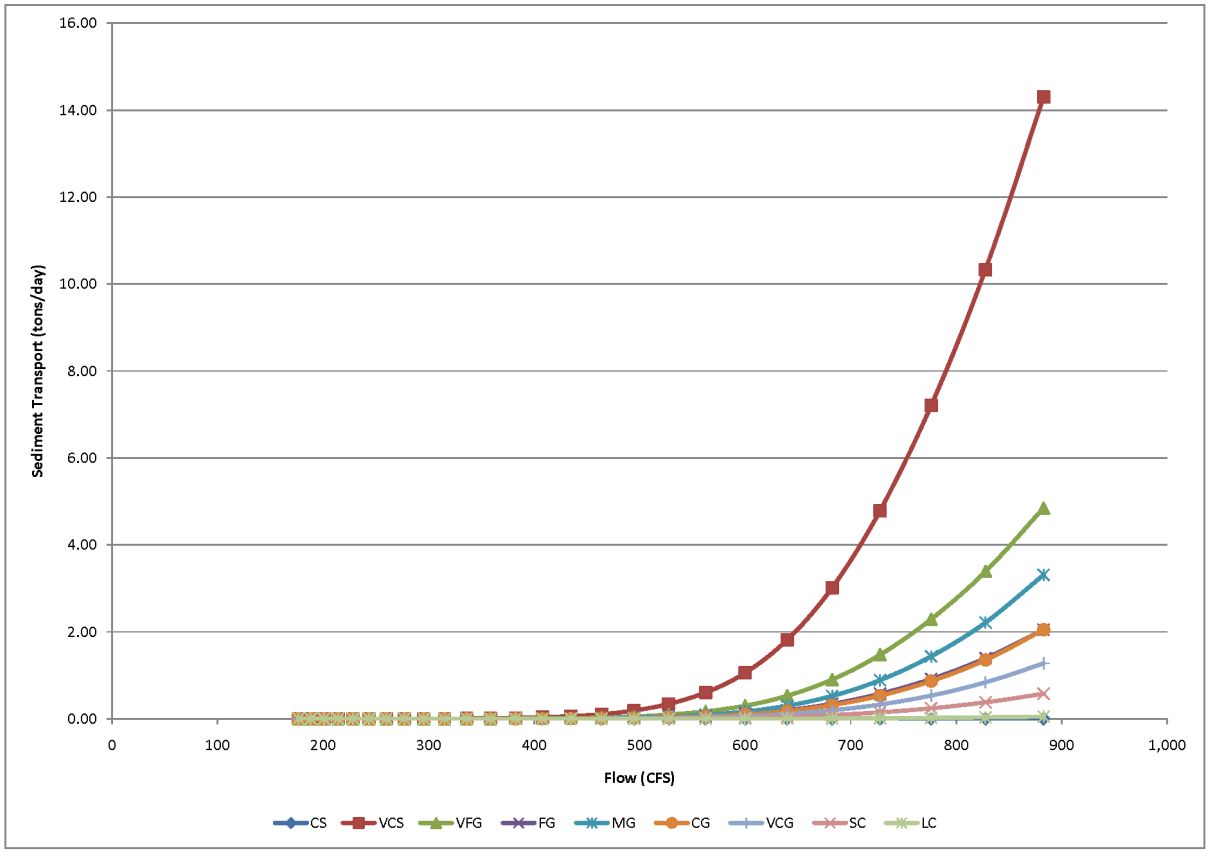


Figure H-21.28
NF-2, North Fork South Platte near Pine, Wilcock and Crowe 2003

Study Area: NF2 - North Fork South Platte near Pine
Cross Section: XC-4
Section Type: Average

Transport Equation: Wilcock and Crowe 2003
Average Slope: 0.00649 ft/ft
Manning's n: 0.0538

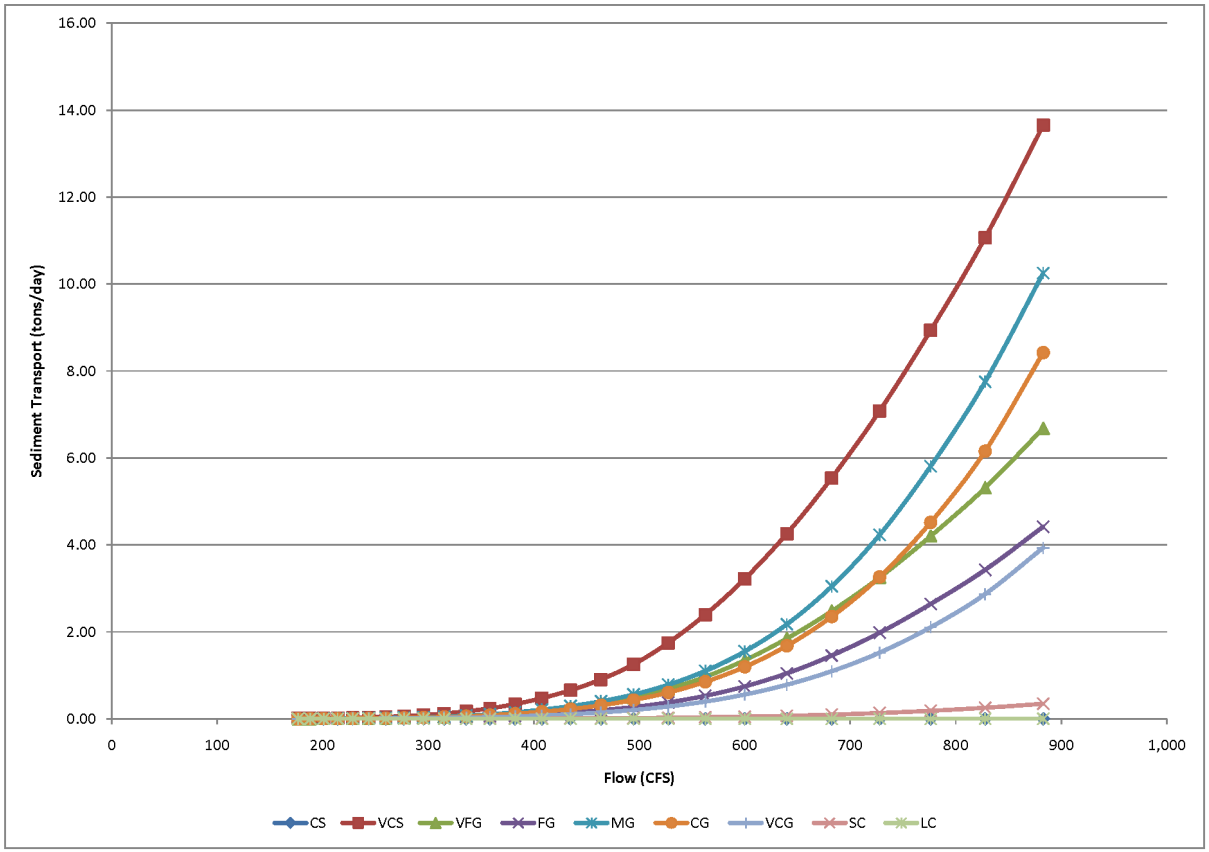


Figure H-21.29
SBC-1, South Boulder Creek above Rollinsville, Parker 1990

Study Area:	SBC1 - South Boulder Creek above Rollinsville	**Transport Equation:**	Parker 1990
Cross Section:	XC-7	**Average Slope:**	0.01806 ft/ft
Section Type:	Average	**Manning's n:**	0.11463

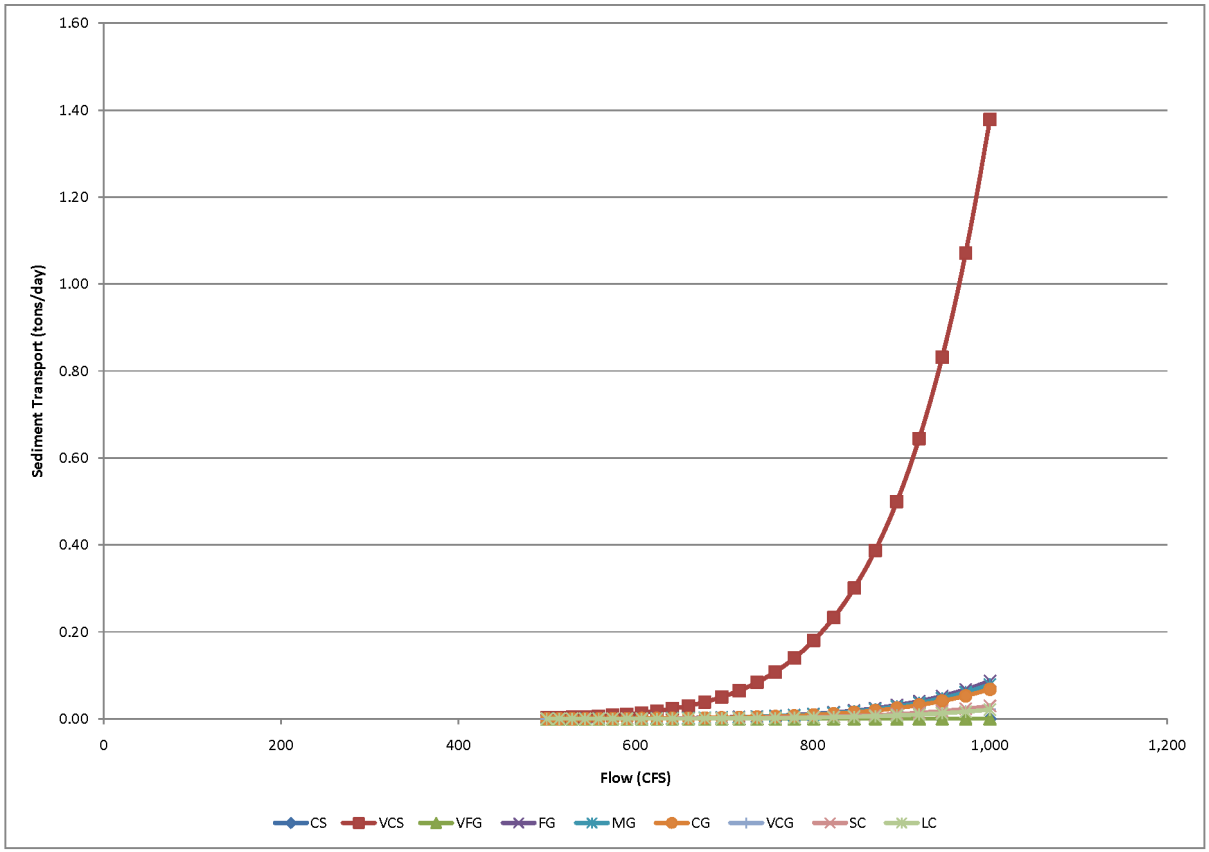


Figure H-21.30
SBC-1, South Boulder Creek above Rollinsville, Wilcock and Crowe 2003

Study Area: SBC1 - South Boulder Creek above Rollinsville
Cross Section: XC-7
Section Type: Average

Transport Equation: Wilcock and Crowe 2003
Average Slope: 0.01806 ft/ft
Manning's n: 0.11463

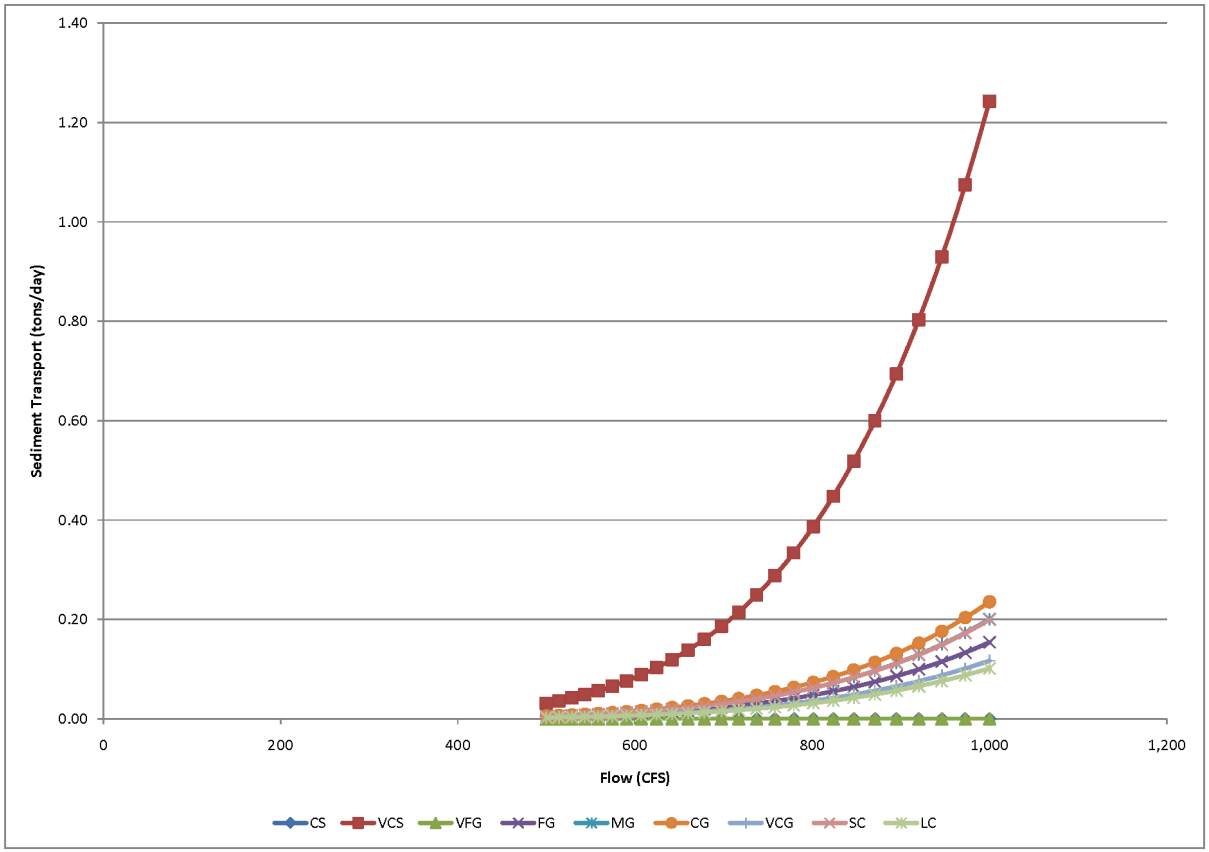


Figure H-21.31
SBC-3, South Boulder Creek below Gross Reservoir, Parker 1990

Study Area:	SBC3 - South Boulder Creek below Gross Reservoir	**Transport Equation:**	Parker 1990
Cross Section:	XC-10	**Average Slope:**	0.02672 ft/ft
Section Type:	Average	**Manning's n:**	0.088

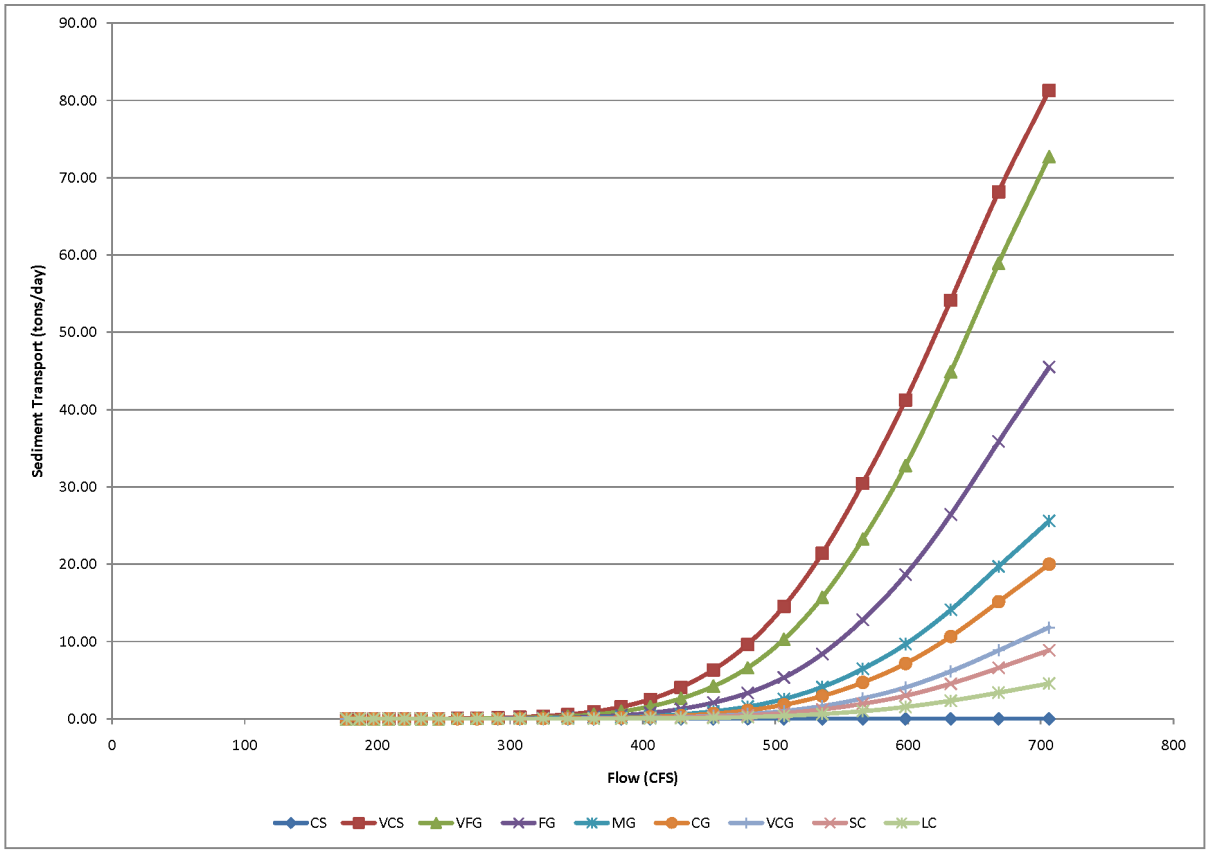
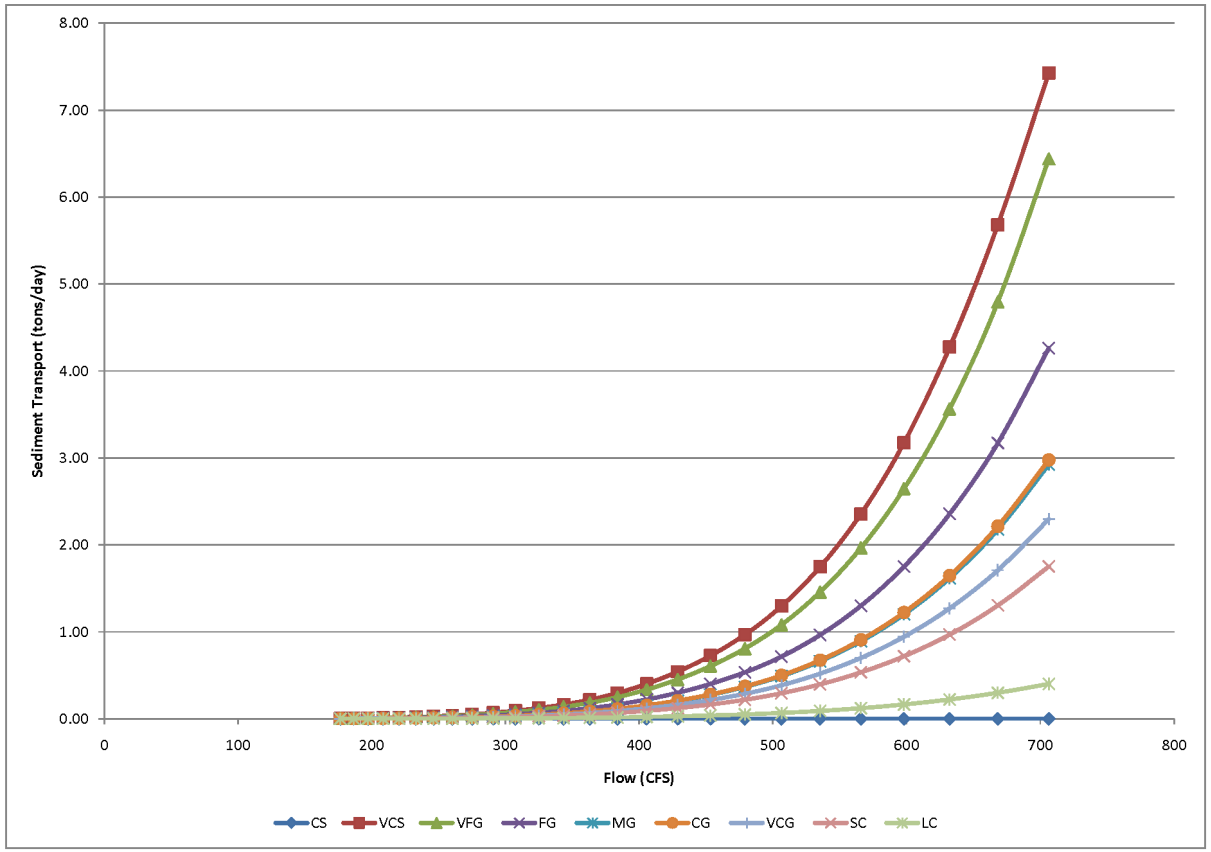


Figure H-21.32
SBC-3, South Boulder Creek below Gross Reservoir, Wilcock and Crowe 2003

Study Area: SBC3 - South Boulder Creek below Gross Reservoir
Cross Section: XC-10
Section Type: Average

Transport Equation: Wilcock and Crowe 2003
Average Slope: 0.02672 ft/ft
Manning's n: 0.088



Appendix H-22
Operations of the Environmental Pool (for Mitigation Purposes) at Gross Reservoir as Evaluated by the Corps

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List of Acronyms

AF	acre-feet
cfs	cubic feet per second
Denver Water	Board of Water Commissioners
FEIS	Final Environmental Impact Statement
GREPOM	Gross Reservoir Environmental Pool Operations Model
Moffat Project or Moffat	Moffat Collection System Project
PACSM	Platte and Colorado Simulation Model

Environmental Pool (for Mitigation Purposes) at Gross Reservoir

Using existing collection infrastructure, water from the Fraser and Williams Fork river basins, and South Boulder Creek, would be diverted during average and wet years and delivered to an enlarged Gross Reservoir. In order to firm this water supply and provide 18,000 acre-feet (AF) of new yield per year, the existing Gross Reservoir would be expanded from 41,811 to 113,811 AF to provide an additional 72,000 AF of storage capacity. In addition, Denver Water proposes to create an additional 5,000 AF of storage in the reservoir in order to store water that would be used in flow releases to enhance aquatic habitat in South Boulder Creek. This additional storage is identified as the Environmental Pool throughout the Moffat Collection System Project (Moffat Project or Project) Final Environmental Impact Statement (FEIS).

The Environmental Pool would be filled with water provided by the cities of Boulder and Lafayette and released for environmental flows. None of the Board of Water Commissioners' (Denver Water's) existing or future water supply would be stored as the Environmental Pool. To accommodate the additional 5,000 AF, the dam would need to be raised approximately 6 feet, beyond the proposed expansion of 7,400 feet, to an elevation of 7,406 feet. Water stored as the Environmental Pool would be released when needed to meet target instream flows on South Boulder Creek downstream of the South Boulder Diversion Canal. The operations and hydrologic effects of the Environmental Pool were analyzed by the City of Boulder as described in the memorandum, Gross Reservoir Environmental Pool Operations Model (GREPOM) (AMEC 2009), which contains a complete description of the techniques and assumptions used by the City of Boulder in their analysis.

The Environmental Pool (for mitigation purposes) would generally be filled from April through September by exchanging water owned by the cities of Boulder and Lafayette, rather than by water from the Moffat Collection System, which includes water diverted from the West Slope and water diverted under Denver Water's Gross Reservoir storage right. Subject to water availability in the Environmental Pool, the City of Boulder considered the following instream flow targets.

Stream Reach	Normal Year[1] (cfs)		Dry Year[2] (cfs)	
	Winter (Oct-Apr)	Summer (May-Sep)	Winter (Oct-Apr)	Summer (May-Sep)
Eldorado Gage to South Boulder Road	6.5[3]	10[4]	5[6]	7[6]
South Boulder Road to East Boulder Ditch	2.5[5]	4[5]	1.5[6]	2[6]
East Boulder Ditch to Mouth	2.5[5]	4[5]	1.5[6]	2[6]

Source: AMEC, 2009.

Notes:

[1] Diversions into the Environmental Pool were constrained by Normal Year instream flow targets, including the Colorado Water Conservation Board's (CWCB) South Boulder Creek instream flow right of 15 cubic feet per second (cfs) during May-September from the outlet of Gross Reservoir to South Boulder Creek Road.

[2] Defined as any year when the Environmental Pool is less than 40 percent full at the end of June.

[3] Based upon Colorado Parks and Wildlife's (CPW's) R2 Cross analyses of minimum fall/winter season flow needs for that reach.

[4] The CWCB's instream flow right during May-September is 15 cfs; however, the Gross Reservoir Environmental Pool Operations Model was operated to release water from the Environmental Pool to meet an instream flow target of 10 cfs. The CWCB's 15 cfs instream flow right acted as a constraint for diversions into the Environmental Pool.

[5] Based upon the CPW's R2 Cross analyses for that reach.

[6] Dry Year targets were selected using professional judgment.

Environmental Pool Modeling Techniques

The City of Boulder developed a daily model for the period from October 1, 1994 through September 30, 2007 titled GREPOM to simulate operations of the Environmental Pool.

Data generated from GREPOM was combined with data from the Platte and Colorado Simulation Model (PACSM) for the Proposed Action (also referred to as Alternative 1a) to determine hydrologic changes to Alternative 1a due to the Environmental Pool. Daily net outflow and storage contents for the Environmental Pool simulated using GREPOM were combined with PACSM results as follows. PACSM data for Alternative 1a was used to calculate average monthly values for average, wet and dry conditions as described in Section 4.1 of the Moffat Project FEIS. These average, wet and dry monthly values were added to GREPOM results using the City of Boulder's definitions for average, wet and dry conditions for the 1995-2007 study period. Calculations were performed as follows:

1. For Gross Reservoir Contents, GREPOM results were added to PACSM results.
2. For Gross Reservoir Outflow, the "net" of GREPOM's inflow and outflow from the Environmental Pool was added to PACSM's total Gross Reservoir outflow.
3. For South Boulder Creek at the Eldorado Springs gage, the "net" of GREPOM's inflow and outflow from the Environmental Pool was added to PACSM's results.

The Environmental Pool essentially retimes flows in South Boulder Creek below Gross Reservoir and below the South Boulder Diversion Canal. During mid-April through June, flows would decrease at times when exchange potential and storage capacity exists. From July through March, flows would increase at times that releases are made from the Environmental Pool (for mitigation purposes) to meet instream flow targets.

Results of the Analysis

Table 1 summarizes average monthly flows below Gross Reservoir and near the South Boulder Diversion Canal at the Eldorado Springs gage, and storage contents in Gross Reservoir for average, wet and dry conditions for Alternative 1a, the Environmental Pool, and the combination of Alternative 1a and the Environmental Pool. Average monthly contents in the Environmental Pool would be greatest at the end of June at 3,630 AF and lowest at the end of March at 2,320 AF, as shown in Figure 1. In dry years, the Environmental Pool would be drawn on more heavily to meet instream flow targets, down to a minimum of 1,900 AF on average at the end of March, and drawn down completely in severe droughts like 2002-2003. However, in wet years, monthly contents in the Environmental Pool would be higher due to the exchange potential and because less water would need to be released to meet instream flow targets.

On average, outflow from Gross Reservoir and flows at the Eldorado Springs gage would decrease from about mid-April through June when water would typically be exchanged upstream into the Environmental Pool. Flows at those locations would increase on average from July through March as water is released to meet instream flow targets. Figure 2 shows the average daily flow in South Boulder Creek at the Eldorado Springs gage under Alternative 1a and with the Environmental Pool. On average, the Environmental Pool would decrease flows up to 12 cfs in May and increase flows up to 4 cfs from December through March, as shown in Table 1. In a wet year, flows would decrease up to 14 cfs on average in May and increase up to 4 cfs from November through March. Flows would decrease more in wet years because there would be more exchange potential to store water in the Environmental Pool. In a dry year, flows would decrease up to 4 cfs on average in May and increase up to 4 cfs in November, December, February, and March. The maximum decrease in flow due to the Environmental Pool was estimated to be 75 cfs, which was the limit assumed for the rate of exchange, whereas the maximum increase in flow was approximately 7 cfs. During the 1995-2007 study period used for the GREPOM, 75 cfs was exchanged into the Environmental Pool account a total of 44 days in 9 years out of the 13-year study period. The maximum number of days 75 cfs was exchanged into the additional Environmental Pool account was 18 days. Typically, the maximum exchange of 75 cfs only occurs for a few days during wet and above average years during peak runoff in late May to early June.

Resource Effects from the Environmental Pool

The environmental effects discussed in Chapter 5 of the Moffat Project FEIS for surface water correspond with the 72,000-AF enlargement whereas the operations and effects associated with the 5,000-AF Environmental Pool, as independently evaluated by the U.S. Army Corps of Engineers (Corps), are discussed here. Additional analyses conducted by the Corps for recreation and aquatic biological resources associated with the Environmental Pool are presented below. The environmental effects of a 77,000-AF expansion are expected to be similar to the 72,000-AF expansion.

Recreation

Overall, the Environmental Pool would have a minor adverse impact to recreation, specifically kayaking, on South Boulder Creek, as a result of reduced flows. Flows are projected to decrease by as much as 12 cfs at both the Gross Reservoir Outflow and the Eldorado Canyon gage in May with the Environmental Pool. May is a primary use period for kayaking along South Boulder Creek and the optimum flow range for kayaking is 150 to 300 cfs. A reduction of 12 cfs at the Eldorado Canyon gage would reduce flows from 148 cfs under the Proposed Action to 136 cfs with the Environmental Pool. This would reduce flows further out of the optimum range for kayaking. No other recreational impacts, adverse or beneficial, are expected as a result of the Environmental Pool at Gross Reservoir.

Aquatic Biological Resources

The Moffat Project hydrology would provide moderate beneficial impacts to the aquatic life of Gross Reservoir due to its larger size and to the section of South Boulder Creek downstream of the reservoir to Denver Water's diversion point due to much higher (up to 88 cfs) winter flows. The Environmental Pool would provide additional beneficial impacts to the aquatic organisms in Gross Reservoir. The additional storage would provide more area and volume to sustain these organisms, thus providing more habitat. In South Boulder Creek downstream of Denver Water's diversion, the changes in flow with the Environmental Pool would also provide beneficial impacts to aquatic life. The Environmental Pool would slightly reduce peak runoff flows and slightly increase low winter flows. Both of these changes in the stream hydrology are common mechanisms for increasing the habitat availability for aquatic organisms in streams. Decreasing high flows provides a less stressful environment for fish and benthic invertebrates by reducing water velocity and the chance that these organisms may by flushed from preferred habitat locations. Increasing flows in winter provides for greater depths and greater area for supporting aquatic organisms through the stressful low flow season. The results of the flow changes with the Environmental Pool may result in greater abundance of aquatic organisms in Gross Reservoir and in South Boulder Creek downstream of Denver Water's diversion.

References

AMEC Earth & Environmental (AMEC). 2009. Memorandum to Steve Schmitzer and Travis Bray, Denver Water, from Lee Rozaklis and Courtney Peppler, AMEC, Regarding Gross Reservoir Environmental Pool Operations Model. June 14.

Table 1: Summary of Hydrologic Changes due to the Gross Reservoir Environmental Pool

Gross Reservoir End-of-Month Contents (acre-feet)

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
average	Alt 1a	93,715	90,124	85,863	81,393	77,444	73,174	69,472	81,240	102,057	102,457	99,506	97,422	87,822
average	Env. Pool	3,405	3,200	2,961	2,743	2,538	2,321	2,386	3,107	3,632	3,560	3,406	3,303	3,047
average	Total	97,120	93,324	88,824	84,135	79,982	75,495	71,858	84,347	105,688	106,016	102,912	100,725	90,869
wet	Alt 1a	100,732	97,611	93,838	89,765	86,149	82,329	80,469	99,798	113,738	112,713	109,095	106,667	97,742
wet	Env. Pool	4,623	4,408	4,148	3,909	3,686	3,457	3,566	4,446	4,984	4,867	4,716	4,614	4,285
wet	Total	105,355	102,019	97,986	93,674	89,835	85,785	84,035	104,244	118,722	117,580	113,810	111,281	102,027
dry	Alt 1a	97,536	93,901	89,583	85,062	81,129	76,922	73,489	77,317	90,879	88,446	85,065	81,688	85,085
dry	Env. Pool	3,024	2,802	2,553	2,358	2,131	1,897	2,016	2,268	2,433	2,328	2,180	2,097	2,341
dry	Total	100,560	96,703	92,136	87,421	83,260	78,819	75,504	79,585	93,312	90,774	87,244	83,785	87,425

Gross Reservoir Outflow (cfs)

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
average	Alt 1a	119	97	99	98	95	96	132	221	398	349	209	132	171
average	Env. Pool	1	3	4	4	4	4	(1)	(12)	(9)	1	2	2	0
average	Total	120	101	103	102	99	100	131	209	389	350	212	134	171
wet	Alt 1a	125	96	97	97	93	91	94	159	412	407	261	172	176
wet	Env. Pool	1	4	4	4	4	4	(2)	(14)	(9)	2	2	2	0
wet	Total	126	99	102	101	97	95	93	145	403	409	263	174	176
dry	Alt 1a	109	91	93	93	89	88	112	211	300	198	160	129	140
dry	Env. Pool	1	4	4	3	4	4	(2)	(4)	(3)	2	2	1	1
dry	Total	110	94	97	96	93	92	110	207	297	200	162	131	141

Notes: The flow shown for the Environmental Pool is the change in outflow from Gross Reservoir due to storage in and releases from the Environmental Pool.
The total Gross Reservoir outflow is the sum of flows for Alt 1a and the Environmental Pool.

Flow at Eldorado Springs Gage (cfs)

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Average
average	Alt 1a	21	16	13	10	11	17	44	148	266	130	49	26	63
average	Total	22	19	16	14	15	20	43	136	257	131	51	27	63
wet	Alt 1a	26	21	16	13	12	19	45	142	302	188	67	31	74
wet	Total	27	25	20	17	16	23	43	127	293	190	70	33	74
dry	Alt 1a	15	12	9	8	8	11	30	106	183	52	28	22	40
dry	Total	16	15	13	11	12	15	28	102	181	54	31	24	42

Notes:
The total flow at the Eldorado Springs gage equals the flow under Alt 1a plus the change in outflow from Gross Reservoir due to the Environmental Pool.

Appendix H-22
Operations of the Environmental Pool (for Mitigation Purposes) at Gross Reservoir as Evaluated by the Corps

Figure 1: Gross Reservoir Storage (af)
Average Year

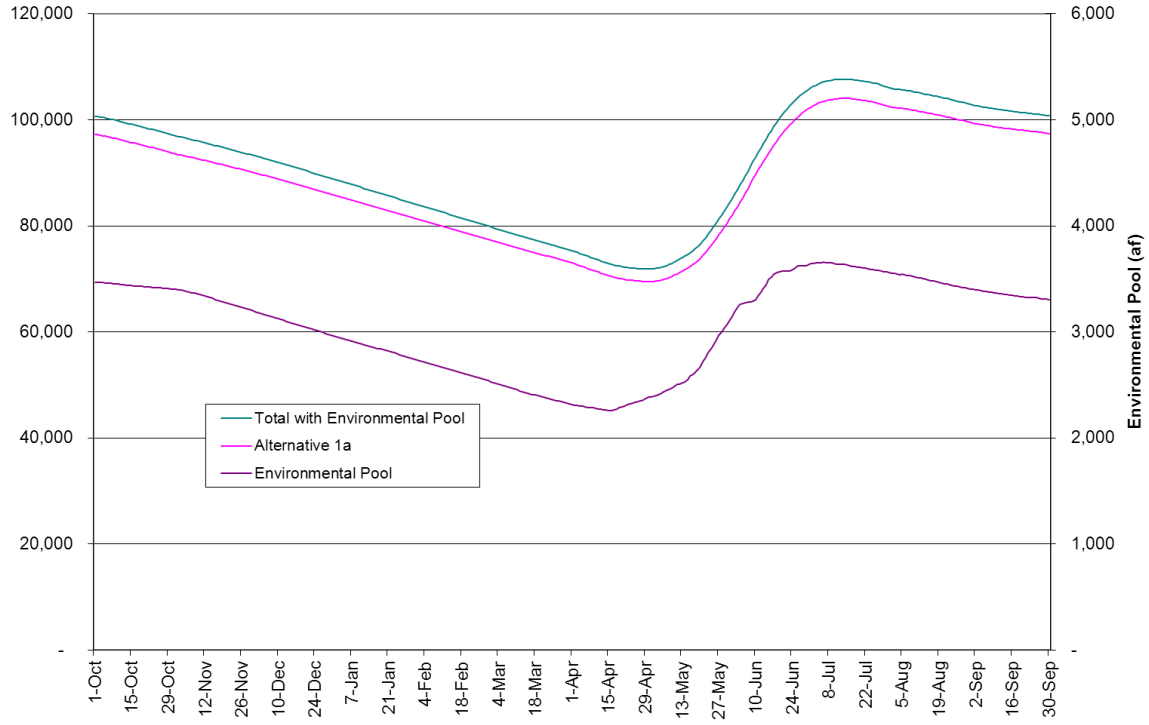
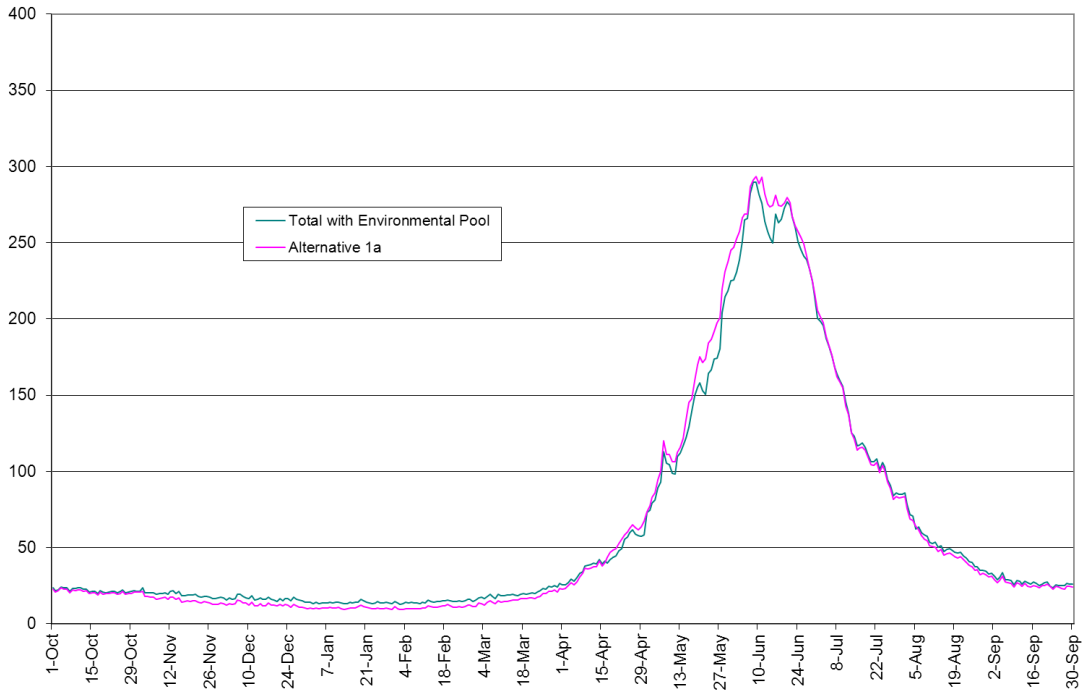
Figure 2: Flow at Eldorado Springs Gage (cfs)
Average Year