Sun Valley Area Drainage Master Plan

Technical Appendices

Step 2

Proposed Alternatives Analysis Report

Volume 7

FRS 2 & 3 SUB-AREA

Flood Control District of Maricopa County

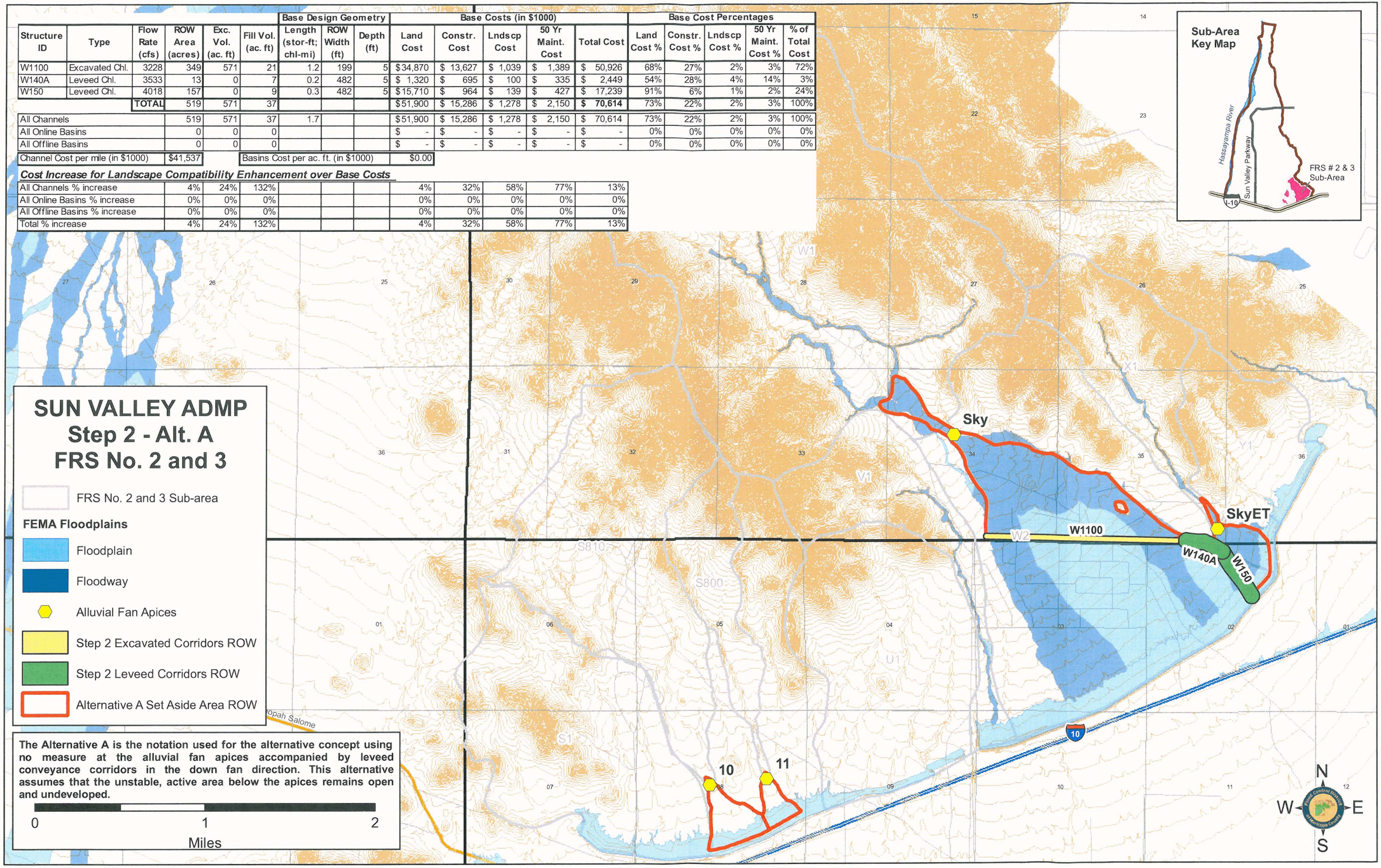
September 2006

Structure ID	Type	Flow Rate (cfs)	ROW Area (acres)	Exc. Vol. (ac. ft)	Fill Vol. (ac. ft)	Base Design Geometry: Length (stor-ft; chl-mi)	ROW Width (ft)	Depth (ft)	Base Costs (in $1000): Land Cost	Constr. Cost	Lndscp Cost	50 Yr Maint. Cost	Total Cost	Base Cost Percentages: Land Cost %	Constr. Cost %	Lndscp Cost %	50 Yr Maint. Cost %	% of Total Cost
W1100	Excavated Chl.	3228	349	571	21	1.2	199	5	$34,870	$ 13,627	$ 1,039	$ 1,389	$ 50,926	68%	27%	2%	3%	72%
W140A	Leveed Chl.	3533	13	0	7	0.2	482	5	$ 1,320	$ 695	$ 100	$ 335	$ 2,449	54%	28%	4%	14%	3%
W150	Leveed Chl.	4018	157	0	9	0.3	482	5	$15,710	$ 964	$ 139	$ 427	$ 17,239	91%	6%	1%	2%	24%
		TOTAL	519	571	37				$51,900	$ 15,286	$ 1,278	$ 2,150	**$ 70,614**	73%	22%	2%	3%	100%
All Channels			519	571	37	1.7			$51,900	$ 15,286	$ 1,278	$ 2,150	$ 70,614	73%	22%	2%	3%	100%
All Online Basins			0	0	0				$ -	$ -	$ -	$ -	$ -	0%	0%	0%	0%	0%
All Offline Basins			0	0	0				$ -	$ -	$ -	$ -	$ -	0%	0%	0%	0%	0%

Channel Cost per mile (in $1000)	$41,537	Basins Cost per ac. ft. (in $1000)	$0.00	

Cost Increase for Landscape Compatibility Enhancement over Base Costs

All Channels % increase	4%	24%	132%				4%	32%	58%	77%	13%
All Online Basins % increase	0%	0%	0%				0%	0%	0%	0%	0%
All Offline Basins % increase	0%	0%	0%				0%	0%	0%	0%	0%
Total % increase	4%	24%	132%				4%	32%	58%	77%	13%

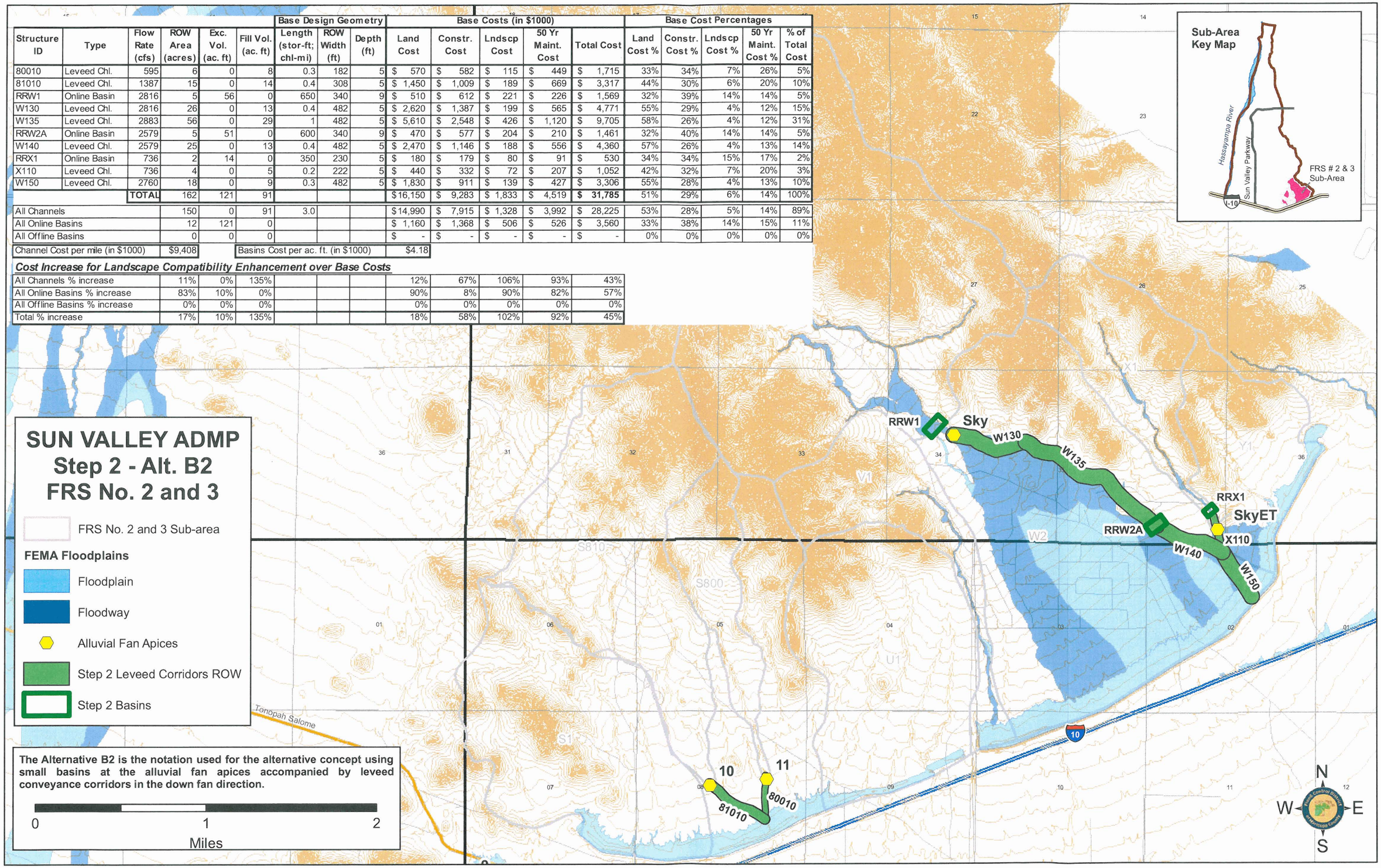


Structure ID	Type	Flow Rate (cfs)	ROW Area (acres)	Exc. Vol. (ac. ft)	Fill Vol. (ac. ft)	Base Design Geometry: Length (stor-ft; chl-mi)	ROW Width (ft)	Depth (ft)	Base Costs (in $1000): Land Cost	Constr. Cost	Lndscp Cost	50 Yr Maint. Cost	Total Cost	Base Cost Percentages: Land Cost %	Constr. Cost %	Lndscp Cost %	50 Yr Maint. Cost %	% of Total Cost
80010	Leveed Chl.	595	6	0	8	0.3	182	5	$ 570	$ 582	$ 115	$ 449	$ 1,715	33%	34%	7%	26%	5%
81010	Leveed Chl.	1387	15	0	14	0.4	308	5	$ 1,450	$ 1,009	$ 189	$ 669	$ 3,317	44%	30%	6%	20%	10%
RRW1	Online Basin	2816	5	56	0	650	340	9	$ 510	$ 612	$ 221	$ 226	$ 1,569	32%	39%	14%	14%	5%
W130	Leveed Chl.	2816	26	0	13	0.4	482	5	$ 2,620	$ 1,387	$ 199	$ 565	$ 4,771	55%	29%	4%	12%	15%
W135	Leveed Chl.	2883	56	0	29	1	482	5	$ 5,610	$ 2,548	$ 426	$ 1,120	$ 9,705	58%	26%	4%	12%	31%
RRW2A	Online Basin	2579	5	51	0	600	340	9	$ 470	$ 577	$ 204	$ 210	$ 1,461	32%	40%	14%	14%	5%
W140	Leveed Chl.	2579	25	0	13	0.4	482	5	$ 2,470	$ 1,146	$ 188	$ 556	$ 4,360	57%	26%	4%	13%	14%
RRX1	Online Basin	736	2	14	0	350	230	5	$ 180	$ 179	$ 80	$ 91	$ 530	34%	34%	15%	17%	2%
X110	Leveed Chl.	736	4	0	5	0.2	222	5	$ 440	$ 332	$ 72	$ 207	$ 1,052	42%	32%	7%	20%	3%
W150	Leveed Chl.	2760	18	0	9	0.3	482	5	$ 1,830	$ 911	$ 139	$ 427	$ 3,306	55%	28%	4%	13%	10%
	TOTAL	162	121	91					$16,150	$ 9,283	$ 1,833	$ 4,519	**$ 31,785**	51%	29%	6%	14%	100%
All Channels		150	0	91		3.0			$14,990	$ 7,915	$ 1,328	$ 3,992	$ 28,225	53%	28%	5%	14%	89%
All Online Basins		12	121	0					$ 1,160	$ 1,368	$ 506	$ 526	$ 3,560	33%	38%	14%	15%	11%
All Offline Basins		0	0	0					$ -	$ -	$ -	$ -	$ -	0%	0%	0%	0%	0%

Channel Cost per mile (in $1000)	$9,408		Basins Cost per ac. ft. (in $1000)	$4.18							

Cost Increase for Landscape Compatibility Enhancement over Base Costs

All Channels % increase	11%	0%	135%				12%	67%	106%	93%	43%
All Online Basins % increase	83%	10%	0%				90%	8%	90%	82%	57%
All Offline Basins % increase	0%	0%	0%				0%	0%	0%	0%	0%
Total % increase	17%	10%	135%				18%	58%	102%	92%	45%

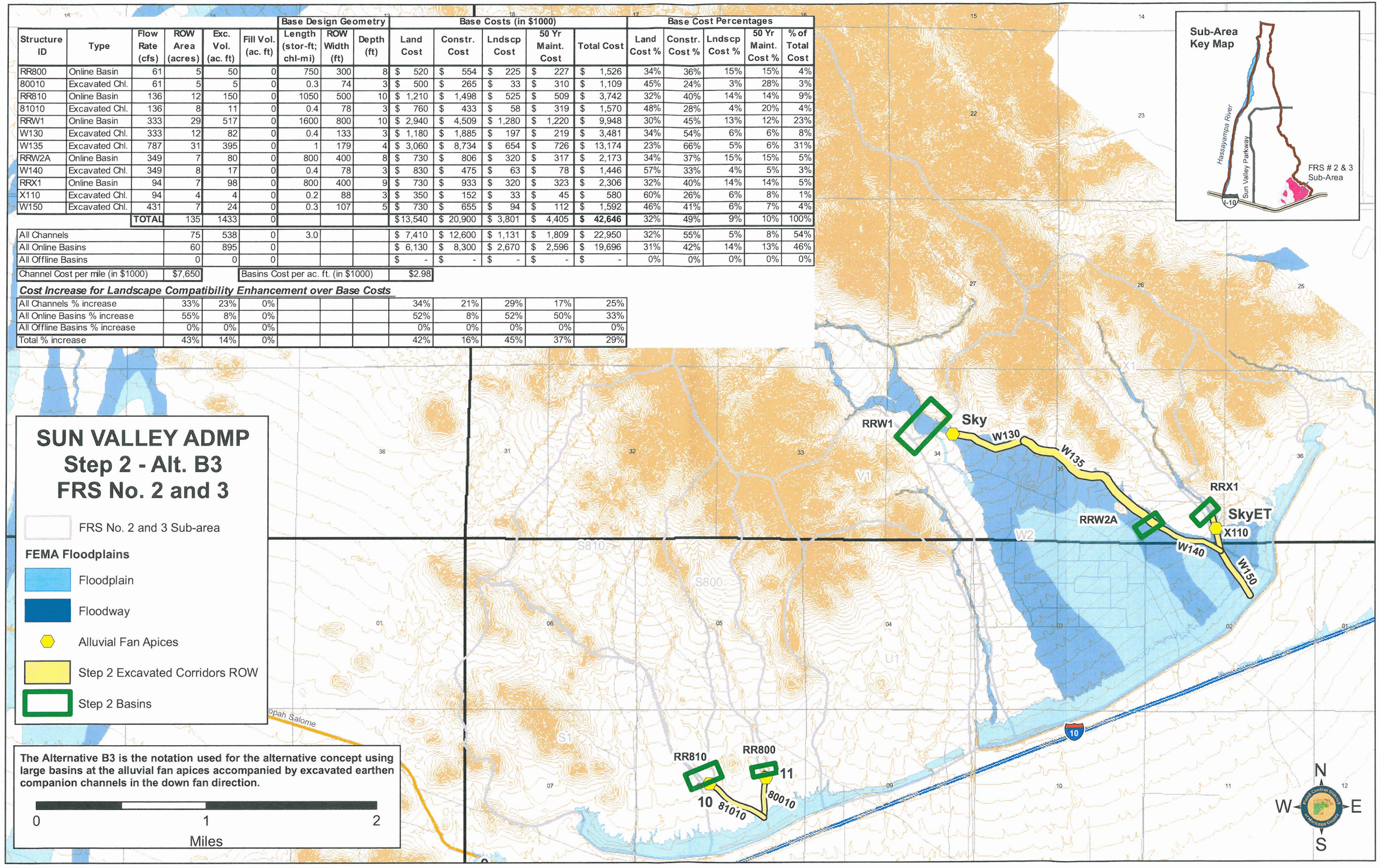


Structure ID	Type	Flow Rate (cfs)	ROW Area (acres)	Exc. Vol. (ac. ft)	Fill Vol. (ac. ft)	Base Design Geometry: Length (stor-ft; chl-mi)	ROW Width (ft)	Depth (ft)	Base Costs (in $1000): Land Cost	Constr. Cost	Lndscp Cost	50 Yr Maint. Cost	Total Cost	Base Cost Percentages: Land Cost %	Constr. Cost %	Lndscp Cost %	50 Yr Maint. Cost %	% of Total Cost
RR800	Online Basin	61	5	50	0	750	300	8	$ 520	$ 554	$ 225	$ 227	$ 1,526	34%	36%	15%	15%	4%
80010	Excavated Chl.	61	5	5	0	0.3	74	3	$ 500	$ 265	$ 33	$ 310	$ 1,109	45%	24%	3%	28%	3%
RR810	Online Basin	136	12	150	0	1050	500	10	$ 1,210	$ 1,498	$ 525	$ 509	$ 3,742	32%	40%	14%	14%	9%
81010	Excavated Chl.	136	8	11	0	0.4	78	3	$ 760	$ 433	$ 58	$ 319	$ 1,570	48%	28%	4%	20%	4%
RRW1	Online Basin	333	29	517	0	1600	800	10	$ 2,940	$ 4,509	$ 1,280	$ 1,220	$ 9,948	30%	45%	13%	12%	23%
W130	Excavated Chl.	333	12	82	0	0.4	133	3	$ 1,180	$ 1,885	$ 197	$ 219	$ 3,481	34%	54%	6%	6%	8%
W135	Excavated Chl.	787	31	395	0	1	179	4	$ 3,060	$ 8,734	$ 654	$ 726	$ 13,174	23%	66%	5%	6%	31%
RRW2A	Online Basin	349	7	80	0	800	400	8	$ 730	$ 806	$ 320	$ 317	$ 2,173	34%	37%	15%	15%	5%
W140	Excavated Chl.	349	8	17	0	0.4	78	3	$ 830	$ 475	$ 63	$ 78	$ 1,446	57%	33%	4%	5%	3%
RRX1	Online Basin	94	7	98	0	800	400	9	$ 730	$ 933	$ 320	$ 323	$ 2,306	32%	40%	14%	14%	5%
X110	Excavated Chl.	94	4	4	0	0.2	88	3	$ 350	$ 152	$ 33	$ 45	$ 580	60%	26%	6%	8%	1%
W150	Excavated Chl.	431	7	24	0	0.3	107	5	$ 730	$ 655	$ 94	$ 112	$ 1,592	46%	41%	6%	7%	4%
		TOTAL	135	1433	0				$ 13,540	$ 20,900	$ 3,801	$ 4,405	**$ 42,646**	32%	49%	9%	10%	100%
All Channels			75	538	0	3.0			$ 7,410	$ 12,600	$ 1,131	$ 1,809	$ 22,950	32%	55%	5%	8%	54%
All Online Basins			60	895	0				$ 6,130	$ 8,300	$ 2,670	$ 2,596	$ 19,696	31%	42%	14%	13%	46%
All Offline Basins			0	0	0				$ -	$ -	$ -	$ -	$ -	0%	0%	0%	0%	0%

Channel Cost per mile (in $1000)	$7,650	Basins Cost per ac. ft. (in $1000)	$2.98

Cost Increase for Landscape Compatibility Enhancement over Base Costs

All Channels % increase	33%	23%	0%				34%	21%	29%	17%	25%
All Online Basins % increase	55%	8%	0%				52%	8%	52%	50%	33%
All Offline Basins % increase	0%	0%	0%				0%	0%	0%	0%	0%
Total % increase	43%	14%	0%				42%	16%	45%	37%	29%

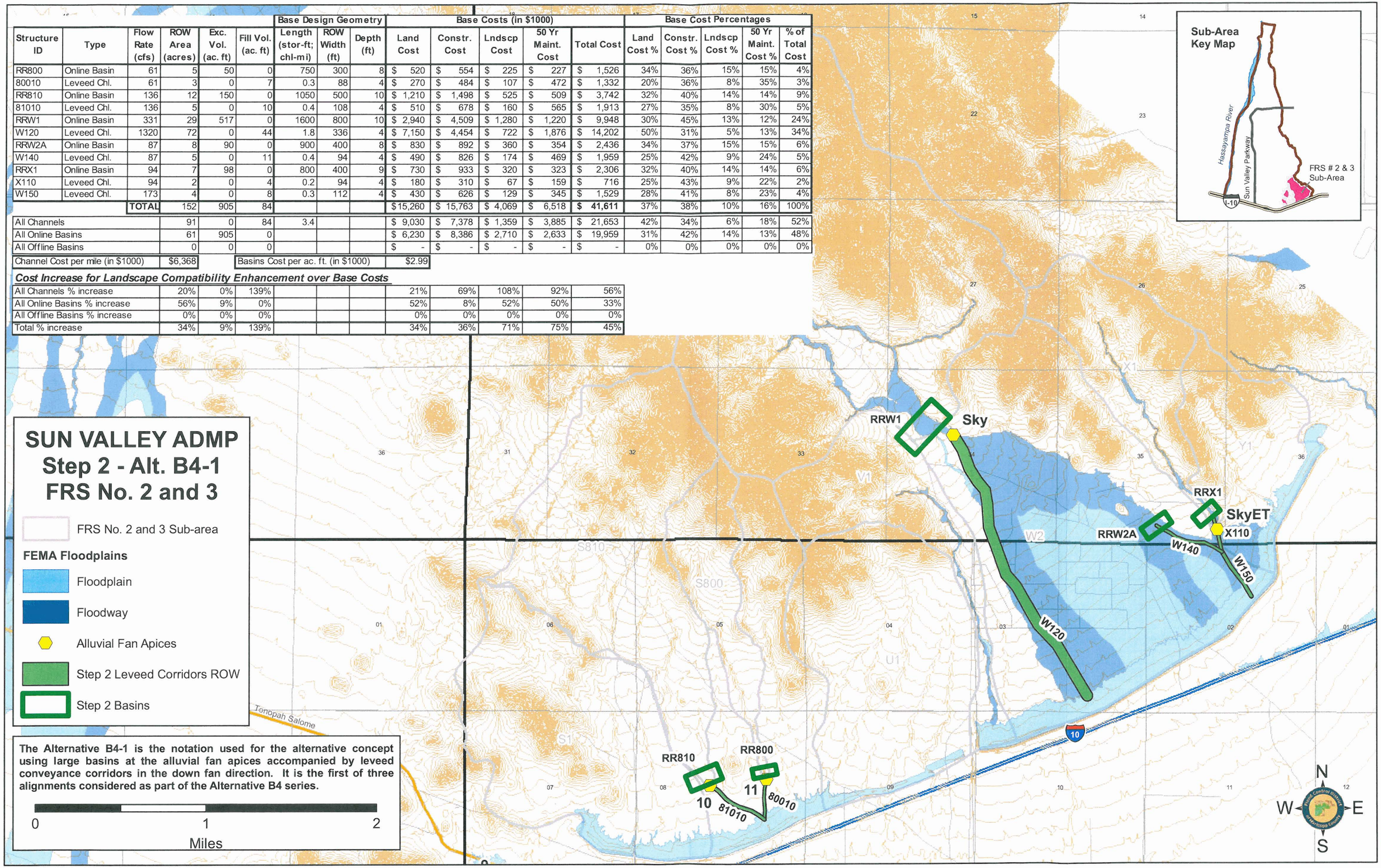


Structure ID	Type	Flow Rate (cfs)	ROW Area (acres)	Exc. Vol. (ac. ft)	Fill Vol. (ac. ft)	Base Design Geometry: Length (stor-ft; chl-mi)	ROW Width (ft)	Depth (ft)	Base Costs (in $1000): Land Cost	Constr. Cost	Lndscp Cost	50 Yr Maint. Cost	Total Cost	Base Cost Percentages: Land Cost %	Constr. Cost %	Lndscp Cost %	50 Yr Maint. Cost %	% of Total Cost
RR800	Online Basin	61	5	50	0	750	300	8	$ 520	$ 554	$ 225	$ 227	$ 1,526	34%	36%	15%	15%	4%
80010	Leveed Chl.	61	3	0	7	0.3	88	4	$ 270	$ 484	$ 107	$ 472	$ 1,332	20%	36%	8%	35%	3%
RR810	Online Basin	136	12	150	0	1050	500	10	$ 1,210	$ 1,498	$ 525	$ 509	$ 3,742	32%	40%	14%	14%	9%
81010	Leveed Chl.	136	5	0	10	0.4	108	4	$ 510	$ 678	$ 160	$ 565	$ 1,913	27%	35%	8%	30%	5%
RRW1	Online Basin	331	29	517	0	1600	800	10	$ 2,940	$ 4,509	$ 1,280	$ 1,220	$ 9,948	30%	45%	13%	12%	24%
W120	Leveed Chl.	1320	72	0	44	1.8	336	4	$ 7,150	$ 4,454	$ 722	$ 1,876	$ 14,202	50%	31%	5%	13%	34%
RRW2A	Online Basin	87	8	90	0	900	400	8	$ 830	$ 892	$ 360	$ 354	$ 2,436	34%	37%	15%	15%	6%
W140	Leveed Chl.	87	5	0	11	0.4	94	4	$ 490	$ 826	$ 174	$ 469	$ 1,959	25%	42%	9%	24%	5%
RRX1	Online Basin	94	7	98	0	800	400	9	$ 730	$ 933	$ 320	$ 323	$ 2,306	32%	40%	14%	14%	6%
X110	Leveed Chl.	94	2	0	4	0.2	94	4	$ 180	$ 310	$ 67	$ 159	$ 716	25%	43%	9%	22%	2%
W150	Leveed Chl.	173	4	0	8	0.3	112	4	$ 430	$ 626	$ 129	$ 345	$ 1,529	28%	41%	8%	23%	4%
	TOTAL	152	905	84					$15,260	$ 15,763	$ 4,069	$ 6,518	**$ 41,611**	37%	38%	10%	16%	100%
All Channels		91	0	84		3.4			$ 9,030	$ 7,378	$ 1,359	$ 3,885	$ 21,653	42%	34%	6%	18%	52%
All Online Basins		61	905	0					$ 6,230	$ 8,386	$ 2,710	$ 2,633	$ 19,959	31%	42%	14%	13%	48%
All Offline Basins		0	0	0					$ -	$ -	$ -	$ -	$ -	0%	0%	0%	0%	0%

Channel Cost per mile (in $1000)	$6,368	Basins Cost per ac. ft. (in $1000)	$2.99

Cost Increase for Landscape Compatibility Enhancement over Base Costs

All Channels % increase	20%	0%	139%				21%	69%	108%	92%	56%
All Online Basins % increase	56%	9%	0%				52%	8%	52%	50%	33%
All Offline Basins % increase	0%	0%	0%				0%	0%	0%	0%	0%
Total % increase	34%	9%	139%				34%	36%	71%	75%	45%



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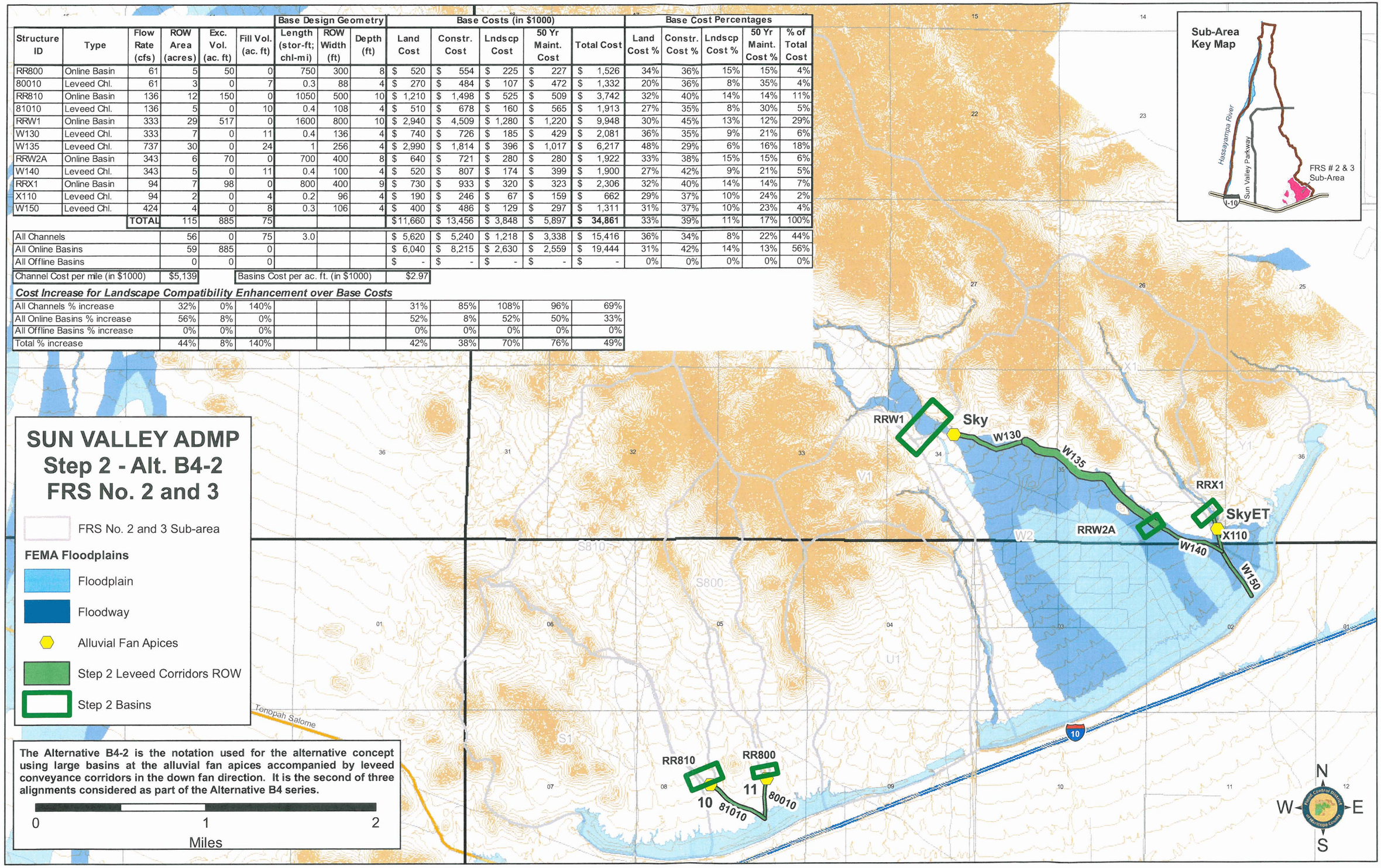
RR800	Online Basin	61	5	50	0	750	300	8	$ 520	$ 554	$ 225	$ 227	$ 1,526	34%	36%	15%	15%	4%
80010	Leveed Chl.	61	3	0	7	0.3	88	4	$ 270	$ 484	$ 107	$ 472	$ 1,332	20%	36%	8%	35%	4%
RR810	Online Basin	136	12	150	0	1050	500	10	$ 1,210	$ 1,498	$ 525	$ 509	$ 3,742	32%	40%	14%	14%	11%
81010	Leveed Chl.	136	5	0	10	0.4	108	4	$ 510	$ 678	$ 160	$ 565	$ 1,913	27%	35%	8%	30%	5%
RRW1	Online Basin	333	29	517	0	1600	800	10	$ 2,940	$ 4,509	$ 1,280	$ 1,220	$ 9,948	30%	45%	13%	12%	29%
W130	Leveed Chl.	333	7	0	11	0.4	136	4	$ 740	$ 726	$ 185	$ 429	$ 2,081	36%	35%	9%	21%	6%
W135	Leveed Chl.	737	30	0	24	1	256	4	$ 2,990	$ 1,814	$ 396	$ 1,017	$ 6,217	48%	29%	6%	16%	18%
RRW2A	Online Basin	343	6	70	0	700	400	8	$ 640	$ 721	$ 280	$ 280	$ 1,922	33%	38%	15%	15%	6%
W140	Leveed Chl.	343	5	0	11	0.4	100	4	$ 520	$ 807	$ 174	$ 399	$ 1,900	27%	42%	9%	21%	5%
RRX1	Online Basin	94	7	98	0	800	400	9	$ 730	$ 933	$ 320	$ 323	$ 2,306	32%	40%	14%	14%	7%
X110	Leveed Chl.	94	2	0	4	0.2	96	4	$ 190	$ 246	$ 67	$ 159	$ 662	29%	37%	10%	24%	2%
W150	Leveed Chl.	424	4	0	8	0.3	106	4	$ 400	$ 486	$ 129	$ 297	$ 1,311	31%	37%	10%	23%	4%
	TOTAL	115	885	75					$11,660	$ 13,456	$ 3,848	$ 5,897	**$ 34,861**	33%	39%	11%	17%	100%
All Channels		56	0	75		3.0			$ 5,620	$ 5,240	$ 1,218	$ 3,338	$ 15,416	36%	34%	8%	22%	44%
All Online Basins		59	885	0					$ 6,040	$ 8,215	$ 2,630	$ 2,559	$ 19,444	31%	42%	14%	13%	56%
All Offline Basins		0	0	0					$ -	$ -	$ -	$ -	$ -	0%	0%	0%	0%	0%

Channel Cost per mile (in $1000)	$5,139	Basins Cost per ac. ft. (in $1000)	$2.97

Cost Increase for Landscape Compatibility Enhancement over Base Costs

All Channels % increase	32%	0%	140%				31%	85%	108%	96%	69%
All Online Basins % increase	56%	8%	0%				52%	8%	52%	50%	33%
All Offline Basins % increase	0%	0%	0%				0%	0%	0%	0%	0%
Total % increase	44%	8%	140%				42%	38%	70%	76%	49%



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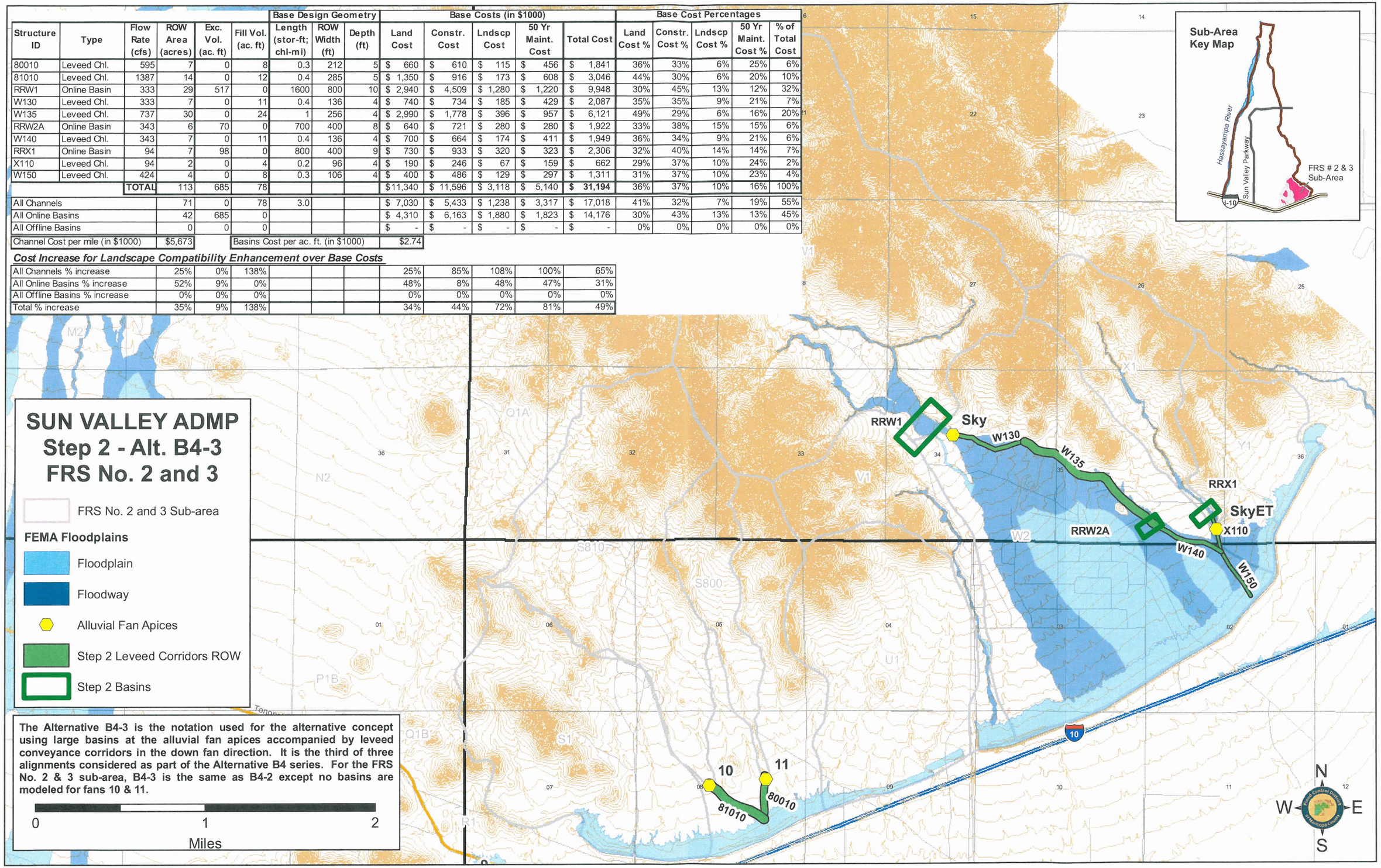
80010	Leveed Chl.	595	7	0	8	0.3	212	5	$ 660	$ 610	$ 115	$ 456	$ 1,841	36%	33%	6%	25%	6%
81010	Leveed Chl.	1387	14	0	12	0.4	285	5	$ 1,350	$ 916	$ 173	$ 608	$ 3,046	44%	30%	6%	20%	10%
RRW1	Online Basin	333	29	517	0	1600	800	10	$ 2,940	$ 4,509	$ 1,280	$ 1,220	$ 9,948	30%	45%	13%	12%	32%
W130	Leveed Chl.	333	7	0	11	0.4	136	4	$ 740	$ 734	$ 185	$ 429	$ 2,087	35%	35%	9%	21%	7%
W135	Leveed Chl.	737	30	0	24	1	256	4	$ 2,990	$ 1,778	$ 396	$ 957	$ 6,121	49%	29%	6%	16%	20%
RRW2A	Online Basin	343	6	70	0	700	400	8	$ 640	$ 721	$ 280	$ 280	$ 1,922	33%	38%	15%	15%	6%
W140	Leveed Chl.	343	7	0	11	0.4	136	4	$ 700	$ 664	$ 174	$ 411	$ 1,949	36%	34%	9%	21%	6%
RRX1	Online Basin	94	7	98	0	800	400	9	$ 730	$ 933	$ 320	$ 323	$ 2,306	32%	40%	14%	14%	7%
X110	Leveed Chl.	94	2	0	4	0.2	96	4	$ 190	$ 246	$ 67	$ 159	$ 662	29%	37%	10%	24%	2%
W150	Leveed Chl.	424	4	0	8	0.3	106	4	$ 400	$ 486	$ 129	$ 297	$ 1,311	31%	37%	10%	23%	4%
	TOTAL	113	685	78					$11,340	$ 11,596	$ 3,118	$ 5,140	**$ 31,194**	36%	37%	10%	16%	100%
All Channels		71	0	78		3.0			$ 7,030	$ 5,433	$ 1,238	$ 3,317	$ 17,018	41%	32%	7%	19%	55%
All Online Basins		42	685	0					$ 4,310	$ 6,163	$ 1,880	$ 1,823	$ 14,176	30%	43%	13%	13%	45%
All Offline Basins		0	0	0					$ -	$ -	$ -	$ -	$ -	0%	0%	0%	0%	0%

Channel Cost per mile (in $1000)	$5,673	Basins Cost per ac. ft. (in $1000)	$2.74

Cost Increase for Landscape Compatibility Enhancement over Base Costs

All Channels % increase	25%	0%	138%				25%	85%	108%	100%	65%
All Online Basins % increase	52%	9%	0%				48%	8%	48%	47%	31%
All Offline Basins % increase	0%	0%	0%				0%	0%	0%	0%	0%
Total % increase	35%	9%	138%				34%	44%	72%	81%	49%



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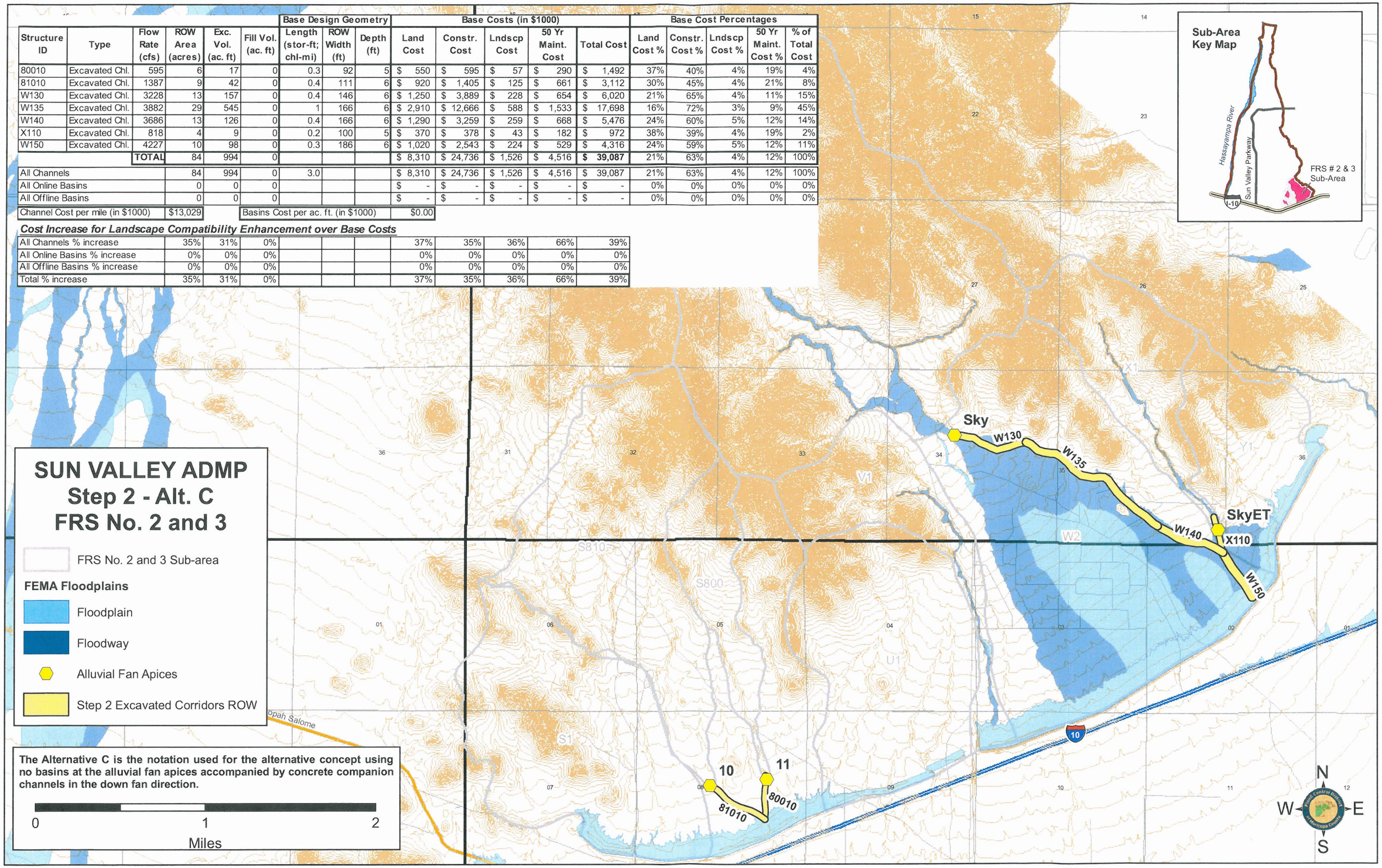
80010	Excavated Chl.	595	6	17	0	0.3	92	5	$ 550	$ 595	$ 57	$ 290	$ 1,492	37%	40%	4%	19%	4%
81010	Excavated Chl.	1387	9	42	0	0.4	111	6	$ 920	$ 1,405	$ 125	$ 661	$ 3,112	30%	45%	4%	21%	8%
W130	Excavated Chl.	3228	13	157	0	0.4	146	6	$ 1,250	$ 3,889	$ 228	$ 654	$ 6,020	21%	65%	4%	11%	15%
W135	Excavated Chl.	3882	29	545	0	1	166	6	$ 2,910	$ 12,666	$ 588	$ 1,533	$ 17,698	16%	72%	3%	9%	45%
W140	Excavated Chl.	3686	13	126	0	0.4	166	6	$ 1,290	$ 3,259	$ 259	$ 668	$ 5,476	24%	60%	5%	12%	14%
X110	Excavated Chl.	818	4	9	0	0.2	100	5	$ 370	$ 378	$ 43	$ 182	$ 972	38%	39%	4%	19%	2%
W150	Excavated Chl.	4227	10	98	0	0.3	186	6	$ 1,020	$ 2,543	$ 224	$ 529	$ 4,316	24%	59%	5%	12%	11%
		TOTAL	84	994	0				$ 8,310	$ 24,736	$ 1,526	$ 4,516	**$ 39,087**	21%	63%	4%	12%	100%
All Channels			84	994	0	3.0			$ 8,310	$ 24,736	$ 1,526	$ 4,516	$ 39,087	21%	63%	4%	12%	100%
All Online Basins			0	0	0				$ -	$ -	$ -	$ -	$ -	0%	0%	0%	0%	0%
All Offline Basins			0	0	0				$ -	$ -	$ -	$ -	$ -	0%	0%	0%	0%	0%

Channel Cost per mile (in $1000)	$13,029	Basins Cost per ac. ft. (in $1000)	$0.00

Cost Increase for Landscape Compatibility Enhancement over Base Costs

All Channels % increase	35%	31%	0%				37%	35%	36%	66%	39%
All Online Basins % increase	0%	0%	0%				0%	0%	0%	0%	0%
All Offline Basins % increase	0%	0%	0%				0%	0%	0%	0%	0%
Total % increase	35%	31%	0%				37%	35%	36%	66%	39%



```
1****************************************                                    ****************************************
 *                                      *                                    *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                    *   U.S. ARMY CORPS OF ENGINEERS       *
 *             JUN   1998               *                                    *   HYDROLOGIC ENGINEERING CENTER      *
 *           VERSION 4.1                *                                    *         609 SECOND STREET            *
 *                                      *                                    *      DAVIS, CALIFORNIA 95616         *
 *  RUN DATE   19APR06  TIME  15:48:10  *                                    *          (916) 756-1104              *
 *                                      *                                    *                                      *
 ****************************************                                    ****************************************

                                        X     X  XXXXXXX   XXXXX           X
                                        X     X  X        X     X         XX
                                        X     X  X        X                X
                                        XXXXXXX  XXXX     X        XXXXX   X
                                        X     X  X        X                X
                                        X     X  X        X     X          X
                                        X     X  XXXXXXX   XXXXX         XXX

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                HEC-1 INPUT                                                PAGE  1

      LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

        1           ID    HYDROLOGY FOR STEP 2 ALTERNATIVES FOR SUN VALLEY ADMP
        2           ID       - FRS NO. 2 & 3 SUBBAREA
        3           ID       - ALTERNATIVE A
        4           ID
        5           ID  Alternative Description
        6           ID  The main design objective of the A Alternative is to allow the
        7           ID  natural geomorphic processes to occur within a designated active
        8           ID  area downstream of the apex.  The objective then is to control
        9           ID  the flow path downstream of the region of uncertainty.  The flows
       10           ID  will be captured in the up-fan area by excavated collector channels
       11           ID  and/or diversion levees.  Once collected, the flows are routed
       12           ID  downstream using leveed corridors similar to the B alternatives.
       13           ID
       14           ID
       15           ID    JE FULLER/ HYDROLOGY & GEOMORPHOLOGY, INC.
       16           ID   JANUARY 2006
       17           ID
       18           ID    MODEL BASED ON S800 SERIES PORTIONS OF:
       19           ID
       20           ID        A4_EX6 - SVADMP - Area 4 Existing Conditions 100-yr 6-hr
       21           ID        Major Basin: 01
       22           ID        100 Year - Return Period
       23           ID        6 Hour Storm
       24           ID        Multiple Storms
       25           ID        Unit Hydrograph: S-Graph
       26           ID        10/04/2005
       27           ID
       28           ID
       29           ID    AND BASED ON PORTIONS OF:
       30           ID
       31           ID         WHITE TANK WASH FDS (ALPHA, 1996)
       32           ID
       33           IT       5  1JAN99    1200    2000
       34           IN      15
       35           IO       5
                   *DIAGRAM
                   *
       36           JD   3.196  0.1000
       37           PC   0.000   0.008   0.016   0.025   0.033   0.041   0.050   0.058   0.066   0.074
       38           PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931   0.950
       39           PC   0.962   0.972   0.983   0.991   1.000
       40           JD   3.181  0.5000
       41           PC   0.000   0.008   0.016   0.025   0.033   0.041   0.050   0.058   0.066   0.074
       42           PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931   0.950
       43           PC   0.962   0.972   0.983   0.991   1.000
       44           JD   3.120     2.8
       45           PC   0.000   0.009   0.016   0.025   0.034   0.042   0.051   0.059   0.068   0.077
       46           PC   0.088   0.101   0.121   0.164   0.253   0.451   0.694   0.836   0.900   0.938
       47           PC   0.950   0.963   0.975   0.988   1.000
       48           JD   2.950    16.0
       49           PC   0.000   0.015   0.020   0.030   0.048   0.063   0.076   0.090   0.105   0.119
       50           PC   0.135   0.152   0.175   0.222   0.304   0.472   0.670   0.796   0.868   0.912
       51           PC   0.946   0.960   0.973   0.987   1.000
       52           JD   2.592    90.0
       53           PC   0.000   0.021   0.035   0.051   0.071   0.087   0.105   0.125   0.143   0.160
1                                                HEC-1 INPUT                                                PAGE  2
```

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  54          PC   0.179   0.201   0.232   0.281   0.364   0.500   0.658   0.773   0.841   0.888
  55          PC   0.927   0.945   0.964   0.982   1.000
              *

  56          KK    S800   BASIN
  57          KM        Compute runoff from subbasin 800
  58          BA   0.431
  59          LG    0.27    0.35    4.60    0.34       9
  60          UI      49     118     252     353     489     442     297     255     213     170
  61          UI     134     113      92      69      57      48      38      29      24      25
  62          UI      12       9      10       9      10       9      10       0       0       0
  63          UI       0       0       0       0       0       0       0       0       0       0
  64          UI       0       0       0       0       0       0       0       0       0       0
              *

  65          KK    S810   BASIN
  66          KM        Compute runoff from subbasin 810
  67          BA   1.607
  68          LG    0.30    0.35    4.65    0.32       4
  69          UI     140     200     493     790     997    1196    1589    1066     843     750
  70          UI     668     569     489     397     336     309     256     202     176     155
  71          UI     130     106     102      68      68      69      46      27      27      27
  72          UI      26      27      27      27      27       0       0       0       0       0
  73          UI       0       0       0       0       0       0       0       0       0       0
              *

  74          KK  ALL800 COMBINE
  75          KM        combination of all 800 series hydrographs AT FRS NO 2.
  76          HC       2
              *
              * THE FOLLOWING PORTIONS ARE FROM THE WHITE TANK WASH FDS (ALPHA, 1996)
              *
              * White Tanks Wash Flood Insurance Study - 7-July-93 - JRB
              * ALPHA Engineering Group Inc. - 5 minute interval - 24 Hour Storm
              *

  77          KK      S1   BASIN
  78          KM   BASIN S1
  79          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
  80          KM    L=      2.4  Lca=       .7   S=  140.0  Kn= .050  LAG=  33.0
  81          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
  82          BA    1.46
  83          LG     .19     .35    3.77     .31    7.00
  84          UI    149.    284.    668.    981.   1216.   1674.   1082.    874.    754.    644.
  85          UI    540.    422.    356.    320.    240.    191.    166.    138.    114.     92.
  86          UI     73.     73.     54.     29.     29.     29.     29.     29.     29.     29.
  87          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
  88          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *
1                                          HEC-1 INPUT                                          PAGE  3

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  89          KK      U1   BASIN
  90          KM   BASIN U1
  91          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
  92          KM    L=      2.1  Lca=      1.1   S=  377.0  Kn= .050  LAG=  32.0
  93          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
  94          BA    1.39
  95          LG     .26     .37    4.74     .22    8.00
  96          UI    147.    294.    688.    987.   1245.   1598.   1002.    831.    714.    602.
  97          UI    493.    381.    338.    278.    212.    177.    159.    112.    107.     72.
  98          UI     72.     67.     28.     28.     28.     28.     28.     28.     28.      0.
  99          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
 100          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *

 101          KK      V1   BASIN
 102          KM   BASIN V1
 103          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 104          KM    L=      2.7  Lca=      1.6   S=  389.0  Kn= .050  LAG=  40.0
 105          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 106          BA     .70
 107          LG     .26     .35    4.24     .41   13.00
 108          UI     59.     76.    200.    320.    406.    481.    660.    503.    372.    329.
 109          UI    290.    254.    221.    183.    150.    138.    123.     97.     77.     70.
 110          UI     64.     49.     45.     39.     29.     29.     29.     18.     11.     11.
 111          UI     11.     11.     11.     11.     11.     11.      0.      0.      0.      0.
              *

 112          KK      W1   BASIN
 113          KM   BASIN W1
 114          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 115          KM    L=      3.3  Lca=      1.6   S=  522.0  Kn= .050  LAG=  42.0
 116          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 117          BA    3.95
 118          LG     .30     .35    4.24     .40   15.00
 119          UI    317.    357.   1030.   1615.   2095.   2456.   3182.   3308.   2176.   1862.
 120          UI   1658.   1480.   1292.   1120.    914.    790.    722.    635.    518.    405.
 121          UI    375.    347.    270.    243.    223.    155.    155.    155.    129.     61.
 122          UI     61.     61.     61.     61.     61.     61.     61.     61.      0.      0.
              *
```

```
 123          KK   W1-1W   ROUTE
 124          KM   PROPOSED CHANNEL
 125          KM    ROUTE FLOW FROM W1 ALONG MCDOWELL RD ALIGNMENT THRU W2 TO INSET FAN APEX
 126          KM    STRUCTURE ID(s): W1100
 127          KM    Slope=(1292.4 - 1203.7) / 6261.6
 128          RS       3    FLOW      -1
 129          RC   0.045   0.045   0.045  6261.60.014173   105.0
 130          RX     0.0    15.0    15.0    15.0   105.0   105.0   105.0   120.0
 131          RY   105.0   100.0   100.0   100.0   100.0   100.0   100.0   105.0
              *
1                                          HEC-1 INPUT                                          PAGE  4

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 132          KK     W2A   BASIN
 133          KM   ASSUMED SAME AS BASIN X1 - USED TO REPRESENT HILLSLOPE WATERSHED CONTRIBUTING
 134          KM   TO EAST SIDE OF SKYLINE FAN
 135          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 136          KM    L=       2.3  Lca=       1.4   S=  457.0  Kn= .050  LAG=  35.0
 137          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 138          BA     .77
 139          LG     .28     .35    4.30     .43   12.00
 140          UI     74.    129.    301.    465.    569.    776.    674.    466.    404.    351.
 141          UI    300.    248.    196.    175.    151.    117.     95.     82.     70.     57.
 142          UI     50.     36.     36.     35.     14.     14.     14.     14.     14.     14.
 143          UI     14.     14.      0.      0.      0.      0.      0.      0.      0.      0.
              *

 144          KK    CW2A COMBINE
 145          KM    COMBINE RUNOFF FROM HILLSLOPE WATERSHED WITH ROUTED FLOW FROM SKYLINE FAN AP
 146          HC       2
              *

 147          KK  W2AX1I   ROUTE
 148          KM   PROPOSED CHANNEL
 149          KM    ROUTE FLOW FROM CW2A TO CONFLUENCE WITH FLOW FROM X1 IN PROPOSED CHANNEL
 150          KM    STRUCTURE ID(s): W140A
 151          KM    Slope=(1203.7 - 1184.0) / 1191.3
 152          RS       1    FLOW      -1
 153          RC   0.045   0.045   0.045  1191.30.016536   104.5
 154          RX     0.0    13.5    13.5    13.5   413.5   413.5   413.5   427.0
 155          RY   104.5   100.0   100.0   100.0   100.0   100.0   100.0   104.5
              *

 156          KK      X1   BASIN
 157          KM   BASIN X1
 158          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 159          KM    L=       2.3  Lca=       1.4   S=  457.0  Kn= .050  LAG=  35.0
 160          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 161          BA     .77
 162          LG     .28     .35    4.30     .43   12.00
 163          UI     74.    129.    301.    465.    569.    776.    674.    466.    404.    351.
 164          UI    300.    248.    196.    175.    151.    117.     95.     82.     70.     57.
 165          UI     50.     36.     36.     35.     14.     14.     14.     14.     14.     14.
 166          UI     14.     14.      0.      0.      0.      0.      0.      0.      0.      0.
              *

 167          KK  X1-X1I   ROUTE
 168          KM    ROUTE RUNOFF FROM X1 TO CONFLUENCE
 169          KM     SLOPE = (1200 - 1185) / 850
 170          RS       1    FLOW      -1
 171          RC   0.045   0.045   0.045     850  0.0176   104.5
 172          RX     0.0    13.5    13.5    13.5   113.5   113.5   113.5   127.0
 173          RY   104.5   100.0   100.0   100.0   100.0   100.0   100.0   104.5
              *
1                                          HEC-1 INPUT                                          PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 174          KK    CX1I COMBINE
 175          KM    COMBINE ROUTED FLOW FROM X1 AND W2A
 176          HC       2
              *

 177          KK  X1I-1W   ROUTE
 178          KM   PROPOSED CHANNEL
 179          KM    ROUTE OUTFLOW FROM RRX1 TO FRS NO. 3 VIA PROPOSED NEW CHANNEL
 180          KM    STRUCTURE ID(s): W150
 181          KM    Slope=(1184.0 - 1152.1) / 1648.8
 182          RS       1    FLOW      -1
 183          RC   0.045   0.045   0.045  1648.80.019313   104.5
 184          RX     0.0    13.5    13.5    13.5   413.5   413.5   413.5   427.0
 185          RY   104.5   100.0   100.0   100.0   100.0   100.0   100.0   104.5
              *

 186          KK      W2   BASIN
 187          KM   BASIN W2
 188          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 189          KM    L=       2.3  Lca=       1.1   S=  422.0  Kn= .050  LAG=  33.0
 190          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 191          BA    2.69
 192          LG     .27     .35    4.19     .40    3.00
```

```
193          UI    274.    522.   1229.   1805.   2237.   3080.   1992.   1608.   1388.   1185.
194          UI    993.    777.    656.    588.    442.    351.    306.    255.    210.    170.
195          UI    134.    134.     99.     53.     53.     53.     53.     53.     53.     53.
196          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
             *

197          KK      Y1   BASIN
198          KM   BASIN Y1
199          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
200          KM    L=      1.3  Lca=       .5   S=  789.0  Kn= .050  LAG=  17.0
201          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
202          BA     .57
203          LG     .38     .35    4.24     .42   12.00
204          UI    160.    607.   1074.    802.    556.    393.    270.    184.    131.     88.
205          UI     57.     43.     22.     22.     22.      0.      0.      0.      0.      0.
206          ZZ
1
                 SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

    56        S800
                 .
                 .
    65           .        S810
                 .           .
                 .           .
    74      ALL800...........
                 .
                 .
    77           .          S1
                 .           .
                 .           .
    89           .           .          U1
                 .           .           .
                 .           .           .
   101           .           .           .          V1
                 .           .           .           .
                 .           .           .           .
   112           .           .           .           .          W1
                 .           .           .           .           V
                 .           .           .           .           V
   123           .           .           .           .       W1-1W
                 .           .           .           .           .
                 .           .           .           .           .
   132           .           .           .           .           .         W2A
                 .           .           .           .           .           .
                 .           .           .           .           .           .
   144           .           .           .           .        CW2A...........
                 .           .           .           .           V
                 .           .           .           .           V
   147           .           .           .           .      W2AX1I
                 .           .           .           .           .
                 .           .           .           .           .
   156           .           .           .           .           .          X1
                 .           .           .           .           .           V
                 .           .           .           .           .           V
   167           .           .           .           .           .      X1-X1I
                 .           .           .           .           .           .
                 .           .           .           .           .           .
   174           .           .           .           .        CX1I...........
                 .           .           .           .           V
                 .           .           .           .           V
   177           .           .           .           .      X1I-1W
                 .           .           .           .           .
                 .           .           .           .           .
   186           .           .           .           .           .          W2
                 .           .           .           .           .           .
                 .           .           .           .           .           .
   197           .           .           .           .           .           .           Y1

 (***) RUNOFF ALSO COMPUTED AT THIS LOCATION
1*****************************************                                  *****************************************
 *                                       *                                  *                                       *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *                                  *    U.S. ARMY CORPS OF ENGINEERS       *
 *              JUN   1998               *                                  *    HYDROLOGIC ENGINEERING CENTER      *
 *           VERSION 4.1                 *                                  *          609 SECOND STREET            *
 *                                       *                                  *       DAVIS, CALIFORNIA 95616         *
 *  RUN DATE   19APR06  TIME  15:48:10   *                                  *           (916) 756-1104              *
 *                                       *                                  *                                       *
 *****************************************                                  *****************************************
```

HYDROLOGY FOR STEP 2 ALTERNATIVES FOR SUN VALLEY ADMP
- FRS NO. 2 & 3 SUBBAREA
- ALTERNATIVE A

Alternative Description
The main design objective of the A Alternative is to allow the natural geomorphic processes to occur within a designated active

```
                    area downstream of the apex.  The objective then is to control
                    the flow path downstream of the region of uncertainty.  The flows
                    will be captured in the up-fan area by excavated collector channels
                    and/or diversion levees.  Once collected, the flows are routed
                    downstream using leveed corridors similar to the B alternatives.


                     JE FULLER/ HYDROLOGY & GEOMORPHOLOGY, INC.
                    JANUARY 2006

                     MODEL BASED ON S800 SERIES PORTIONS OF:

                         A4_EX6 - SVADMP - Area 4 Existing Conditions 100-yr 6-hr
                         Major Basin: 01
                         100 Year - Return Period
                         6 Hour Storm
                         Multiple Storms
                         Unit Hydrograph: S-Graph
                         10/04/2005


                     AND BASED ON PORTIONS OF:

                          WHITE TANK WASH FDS (ALPHA, 1996)


 35 IO          OUTPUT CONTROL VARIABLES
                      IPRNT           5  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE

    IT          HYDROGRAPH TIME DATA
                       NMIN           5  MINUTES IN COMPUTATION INTERVAL
                      IDATE      1JAN99  STARTING DATE
                      ITIME        1200  STARTING TIME
                         NQ        2000  NUMBER OF HYDROGRAPH ORDINATES
                     NDDATE      8JAN99  ENDING DATE
                     NDTIME        1035  ENDING TIME
                      ICENT          19  CENTURY MARK

                 COMPUTATION INTERVAL     .08 HOURS
                      TOTAL TIME BASE  166.58 HOURS

         ENGLISH UNITS
              DRAINAGE AREA          SQUARE MILES
              PRECIPITATION DEPTH    INCHES
              LENGTH, ELEVATION      FEET
              FLOW                   CUBIC FEET PER SECOND
              STORAGE VOLUME         ACRE-FEET
              SURFACE AREA           ACRES
              TEMPERATURE            DEGREES FAHRENHEIT

 36 JD          INDEX STORM NO. 1
                       STRM        3.20  PRECIPITATION DEPTH
                       TRDA         .10  TRANSPOSITION DRAINAGE AREA

 37 PI            PRECIPITATION PATTERN
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                     .00       .00       .00       .01       .01       .01       .01       .01       .01       .03
                     .03       .03       .05       .05       .05       .15       .15       .15       .03       .03
                     .03       .01       .01       .01       .01       .01       .01       .00       .00       .00
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                     .00       .00

 40 JD          INDEX STORM NO. 2
                       STRM        3.18  PRECIPITATION DEPTH
                       TRDA         .50  TRANSPOSITION DRAINAGE AREA

 41 PI            PRECIPITATION PATTERN
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                     .00       .00       .00       .01       .01       .01       .01       .01       .01       .03
                     .03       .03       .05       .05       .05       .15       .15       .15       .03       .03
                     .03       .01       .01       .01       .01       .01       .01       .00       .00       .00
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                     .00       .00

 44 JD          INDEX STORM NO. 3
                       STRM        3.12  PRECIPITATION DEPTH
                       TRDA        2.80  TRANSPOSITION DRAINAGE AREA

 45 PI            PRECIPITATION PATTERN
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                     .00       .00       .00       .01       .01       .01       .01       .01       .01       .03
                     .03       .03       .07       .07       .07       .08       .08       .08       .05       .05
                     .05       .02       .02       .02       .01       .01       .01       .00       .00       .00
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                     .00       .00

 48 JD          INDEX STORM NO. 4
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```
                    STRM        2.95  PRECIPITATION DEPTH
                    TRDA       16.00  TRANSPOSITION DRAINAGE AREA

49 PI            PRECIPITATION PATTERN
                    .01        .01        .00        .00        .00        .00        .00        .00        .00        .01
                    .01        .01        .00        .01        .00        .00        .00        .00        .00        .00
                    .00        .00        .01        .00        .00        .00        .00        .01        .01        .01
                    .01        .01        .01        .01        .01        .01        .02        .02        .02        .03
                    .03        .03        .06        .06        .06        .07        .07        .07        .04        .04
                    .04        .02        .02        .02        .01        .01        .01        .01        .01        .01
                    .00        .00        .00        .00        .00        .00        .00        .00        .00        .00
                    .00        .00

52 JD           INDEX STORM NO. 5
                    STRM        2.59  PRECIPITATION DEPTH
                    TRDA       90.00  TRANSPOSITION DRAINAGE AREA

53 PI            PRECIPITATION PATTERN
                    .01        .01        .01        .00        .00        .00        .01        .01        .01        .01
                    .01        .01        .01        .01        .01        .01        .01        .01        .01        .01
                    .01        .01        .01        .01        .01        .01        .01        .01        .01        .01
                    .01        .01        .01        .01        .01        .01        .02        .02        .02        .03
                    .03        .03        .05        .05        .05        .05        .05        .05        .04        .04
                    .04        .02        .02        .02        .02        .02        .02        .01        .01        .01
                    .01        .01        .01        .01        .01        .01        .01        .01        .01        .01
                    .01        .01
1
                                                  RUNOFF SUMMARY
                                          FLOW IN CUBIC FEET PER SECOND
                                        TIME IN HOURS,  AREA IN SQUARE MILES

                                          PEAK   TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM     TIME OF
          OPERATION        STATION       FLOW    PEAK                                            AREA      STAGE     MAX STAGE
+                                                            6-HOUR     24-HOUR     72-HOUR

          HYDROGRAPH AT
+                            S800        595.    4.25         74.         18.          6.        .43

          HYDROGRAPH AT
+                            S810       1355.    4.42        225.         56.         19.       1.61

          2 COMBINED AT
+                          ALL800       1640.    4.33        279.         70.         23.       2.04

          HYDROGRAPH AT
+                             S1       1537.    4.33        238.         60.         20.       1.46

          HYDROGRAPH AT
+                             U1       1553.    4.33        239.         60.         20.       1.39

          HYDROGRAPH AT
+                             V1        707.    4.42        114.         29.         10.        .70

          HYDROGRAPH AT
+                             W1       2581.    4.42        533.        134.         45.       3.95

          ROUTED TO
+                           W1-1W      2531.    4.58        531.        134.         45.       3.95

          HYDROGRAPH AT
+                            W2A        818.    4.33        120.         30.         10.        .77

          2 COMBINED AT
+                            CW2A      2873.    4.58        611.        155.         52.       4.72

          ROUTED TO
+                          W2AX1I      2855.    4.58        611.        155.         52.       4.72

          HYDROGRAPH AT
+                             X1        818.    4.33        120.         30.         10.        .77

          ROUTED TO
+                          X1-X1I       806.    4.33        120.         30.         10.        .77

          2 COMBINED AT
+                            CX1I      3203.    4.58        688.        174.         58.       5.49

          ROUTED TO
+                          X1I-1W      3168.    4.67        687.        174.         58.       5.49

          HYDROGRAPH AT
+                             W2       1993.    4.33        317.         79.         26.       2.69

          HYDROGRAPH AT
+                             Y1       1029.    4.08         91.         23.          8.        .57

*** NORMAL END OF HEC-1 ***
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1****************************************                                    ****************************************
 *                                      *                                    *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                    *   U.S. ARMY CORPS OF ENGINEERS       *
 *              JUN   1998              *                                    *   HYDROLOGIC ENGINEERING CENTER      *
 *           VERSION 4.1                *                                    *         609 SECOND STREET            *
 *                                      *                                    *      DAVIS, CALIFORNIA 95616         *
 *  RUN DATE   19APR06  TIME  15:48:10  *                                    *          (916) 756-1104              *
 *                                      *                                    *                                      *
 ****************************************                                    ****************************************

                                        X     X  XXXXXXX   XXXXX           X
                                        X     X  X        X     X         XX
                                        X     X  X        X                X
                                        XXXXXXX  XXXX     X        XXXXX   X
                                        X     X  X        X                X
                                        X     X  X        X     X          X
                                        X     X  XXXXXXX   XXXXX         XXX


THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                HEC-1 INPUT                                                PAGE  1

      LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

        1           ID    HYDROLOGY FOR STEP 2 ALTERNATIVES FOR SUN VALLEY ADMP
        2           ID       - FRS NO. 2 & 3 SUBBAREA
        3           ID       - ALTERNATIVE A
        4           ID
        5           ID  Alternative Description
        6           ID  The main design objective of the A Alternative is to allow the
        7           ID  natural geomorphic processes to occur within a designated active
        8           ID  area downstream of the apex.  The objective then is to control
        9           ID  the flow path downstream of the region of uncertainty.  The flows
       10           ID  will be captured in the up-fan area by excavated collector channels
       11           ID  and/or diversion levees.  Once collected, the flows are routed
       12           ID  downstream using leveed corridors similar to the B alternatives.
       13           ID
       14           ID
       15           ID    JE FULLER/ HYDROLOGY & GEOMORPHOLOGY, INC.
       16           ID   JANUARY 2006
       17           ID
       18           ID    MODEL BASED ON S800 SERIES PORTIONS OF:
       19           ID
       20           ID        FCDMC
       21           ID        A4_EX24 - SVADMP - Area 4 Existing Conditions 100-yr 24-hr
       22           ID        Major Basin: 01
       23           ID        100 Year - Return Period
       24           ID        24 Hour Storm
       25           ID        Multiple Storms
       26           ID        Unit Hydrograph: S-Graph
       27           ID        10/04/2005
       28           ID
       29           ID
       30           ID    AND BASED ON PORTIONS OF:
       31           ID
       32           ID         WHITE TANK WASH FDS (ALPHA, 1996)
       33           ID
       34           IT       5  1JAN99    1200    2000
       35           IN      15
       36           IO       5
                   *DIAGRAM
                   *
       37           JD   4.198  0.1000
       38           PC   0.000   0.002   0.005   0.008   0.011   0.014   0.017   0.020   0.023   0.026
       39           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056   0.060
       40           PC   0.064   0.068   0.072   0.076   0.080   0.085   0.090   0.095   0.100   0.105
       41           PC   0.110   0.115   0.120   0.126   0.133   0.140   0.147   0.155   0.163   0.172
       42           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
       43           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
       44           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
       45           PC   0.913   0.918   0.922   0.926   0.930   0.934   0.938   0.942   0.946   0.950
       46           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977   0.980
       47           PC   0.983   0.986   0.989   0.992   0.995   0.998   1.000
       48           JD   3.990    10.0
       49           JD   3.780    30.0
                   *
1                                                HEC-1 INPUT                                                PAGE  2

      LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
KK    S800   BASIN
KM        Compute runoff from subbasin 800
BA   0.431
LG    0.27    0.35    4.60    0.34       9
UI      49     118     252     353     489     442     297     255     213     170
UI     134     113      92      69      57      48      38      29      24      25
UI      12       9      10       9      10       9      10       0       0       0
UI       0       0       0       0       0       0       0       0       0       0
UI       0       0       0       0       0       0       0       0       0       0
*

KK    S810   BASIN
KM        Compute runoff from subbasin 810
BA   1.607
LG    0.30    0.35    4.65    0.32       4
UI     140     200     493     790     997    1196    1589    1066     843     750
UI     668     569     489     397     336     309     256     202     176     155
UI     130     106     102      68      68      69      46      27      27      27
UI      26      27      27      27      27       0       0       0       0       0
UI       0       0       0       0       0       0       0       0       0       0
*

KK  ALL800 COMBINE
KM        combination of all 800 series hydrographs AT FRS NO 2.
HC       2
*
* THE FOLLOWING PORTIONS ARE FROM THE WHITE TANK WASH FDS (ALPHA, 1996)
*
* White Tanks Wash Flood Insurance Study - 7-July-93 - JRB
* ALPHA Engineering Group Inc. - 5 minute interval - 24 Hour Storm
*

KK      S1   BASIN
KM   BASIN S1
KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
KM    L=      2.4  Lca=       .7   S=  140.0  Kn= .050  LAG=  33.0
KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
BA    1.46
LG     .19     .35    3.77     .31    7.00
UI    149.    284.    668.    981.   1216.   1674.   1082.    874.    754.    644.
UI    540.    422.    356.    320.    240.    191.    166.    138.    114.     92.
UI     73.     73.     54.     29.     29.     29.     29.     29.     29.     29.
UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
*

KK      U1   BASIN
KM   BASIN U1
KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
KM    L=      2.1  Lca=      1.1   S=  377.0  Kn= .050  LAG=  32.0
KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
BA    1.39
LG     .26     .37    4.74     .22    8.00
UI    147.    294.    688.    987.   1245.   1598.   1002.    831.    714.    602.
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

UI    493.    381.    338.    278.    212.    177.    159.    112.    107.     72.
UI     72.     67.     28.     28.     28.     28.     28.     28.     28.      0.
UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
*

KK      V1   BASIN
KM   BASIN V1
KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
KM    L=      2.7  Lca=      1.6   S=  389.0  Kn= .050  LAG=  40.0
KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
BA     .70
LG     .26     .35    4.24     .41   13.00
UI     59.     76.    200.    320.    406.    481.    660.    503.    372.    329.
UI    290.    254.    221.    183.    150.    138.    123.     97.     77.     70.
UI     64.     49.     45.     39.     29.     29.     29.     18.     11.     11.
UI     11.     11.     11.     11.     11.     11.      0.      0.      0.      0.
*

KK      W1   BASIN
KM   BASIN W1
KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
KM    L=      3.3  Lca=      1.6   S=  522.0  Kn= .050  LAG=  42.0
KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
BA    3.95
LG     .30     .35    4.24     .40   15.00
UI    317.    357.   1030.   1615.   2095.   2456.   3182.   3308.   2176.   1862.
UI   1658.   1480.   1292.   1120.    914.    790.    722.    635.    518.    405.
UI    375.    347.    270.    243.    223.    155.    155.    155.    129.     61.
UI     61.     61.     61.     61.     61.     61.     61.     61.      0.      0.
*

KK   W1-1W   ROUTE
KM   PROPOSED CHANNEL
KM    ROUTE FLOW FROM W1 ALONG MCDOWELL RD ALIGNMENT THRU W2 TO INSET FAN APEX
KM    STRUCTURE ID(s): W1100
KM    Slope=(1292.4 - 1203.7) / 6261.6
```

```
 122          RS       3    FLOW      -1
 123          RC   0.045   0.045   0.045  6261.60.014173   105.0
 124          RX     0.0    15.0    15.0    15.0   105.0   105.0   105.0   120.0
 125          RY   105.0   100.0   100.0   100.0   100.0   100.0   100.0   105.0
              *

 126          KK     W2A   BASIN
 127          KM   ASSUMED SAME AS BASIN X1 - USED TO REPRESENT HILLSLOPE WATERSHED CONTRIBUTING
 128          KM   TO EAST SIDE OF SKYLINE FAN
 129          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 130          KM    L=      2.3  Lca=      1.4   S=  457.0  Kn= .050  LAG=  35.0
 131          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 132          BA     .77
 133          LG     .28     .35    4.30     .43   12.00
 134          UI     74.    129.    301.    465.    569.    776.    674.    466.    404.    351.
 135          UI    300.    248.    196.    175.    151.    117.     95.     82.     70.     57.
 136          UI     50.     36.     36.     35.     14.     14.     14.     14.     14.     14.
 137          UI     14.     14.      0.      0.      0.      0.      0.      0.      0.      0.
              *
1                                          HEC-1 INPUT                                          PAGE  4

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 138          KK    CW2A COMBINE
 139          KM    COMBINE RUNOFF FROM HILLSLOPE WATERSHED WITH ROUTED FLOW FROM SKYLINE FAN AP
 140          HC       2
              *

 141          KK  W2AX1I   ROUTE
 142          KM   PROPOSED CHANNEL
 143          KM    ROUTE FLOW FROM CW2A TO CONFLUENCE WITH FLOW FROM X1 IN PROPOSED CHANNEL
 144          KM    STRUCTURE ID(s): W140A
 145          KM    Slope=(1203.7 - 1184.0) / 1191.3
 146          RS       1    FLOW      -1
 147          RC   0.045   0.045   0.045  1191.30.016536   104.5
 148          RX     0.0    13.5    13.5    13.5   413.5   413.5   413.5   427.0
 149          RY   104.5   100.0   100.0   100.0   100.0   100.0   100.0   104.5
              *

 150          KK      X1   BASIN
 151          KM   BASIN X1
 152          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 153          KM    L=      2.3  Lca=      1.4   S=  457.0  Kn= .050  LAG=  35.0
 154          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 155          BA     .77
 156          LG     .28     .35    4.30     .43   12.00
 157          UI     74.    129.    301.    465.    569.    776.    674.    466.    404.    351.
 158          UI    300.    248.    196.    175.    151.    117.     95.     82.     70.     57.
 159          UI     50.     36.     36.     35.     14.     14.     14.     14.     14.     14.
 160          UI     14.     14.      0.      0.      0.      0.      0.      0.      0.      0.
              *

 161          KK  X1-X1I   ROUTE
 162          KM    ROUTE RUNOFF FROM X1 TO CONFLUENCE
 163          KM     SLOPE = (1200 - 1185) / 850
 164          RS       1    FLOW      -1
 165          RC   0.045   0.045   0.045     850  0.0176   104.5
 166          RX     0.0    13.5    13.5    13.5   113.5   113.5   113.5   127.0
 167          RY   104.5   100.0   100.0   100.0   100.0   100.0   100.0   104.5
              *

 168          KK    CX1I COMBINE
 169          KM    COMBINE ROUTED FLOW FROM X1 AND W2A
 170          HC       2
              *

 171          KK  X1I-1W   ROUTE
 172          KM   PROPOSED CHANNEL
 173          KM    ROUTE OUTFLOW FROM RRX1 TO FRS NO. 3 VIA PROPOSED NEW CHANNEL
 174          KM    STRUCTURE ID(s): W150
 175          KM    Slope=(1184.0 - 1152.1) / 1648.8
 176          RS       1    FLOW      -1
 177          RC   0.045   0.045   0.045  1648.80.019313   104.5
 178          RX     0.0    13.5    13.5    13.5   413.5   413.5   413.5   427.0
 179          RY   104.5   100.0   100.0   100.0   100.0   100.0   100.0   104.5
              *
1                                          HEC-1 INPUT                                          PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 180          KK      W2   BASIN
 181          KM   BASIN W2
 182          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 183          KM    L=      2.3  Lca=      1.1   S=  422.0  Kn= .050  LAG=  33.0
 184          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 185          BA    2.69
 186          LG     .27     .35    4.19     .40    3.00
 187          UI    274.    522.   1229.   1805.   2237.   3080.   1992.   1608.   1388.   1185.
 188          UI    993.    777.    656.    588.    442.    351.    306.    255.    210.    170.
 189          UI    134.    134.     99.     53.     53.     53.     53.     53.     53.     53.
 190          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *
```

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191          KK      Y1   BASIN
192          KM   BASIN Y1
193          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
194          KM    L=      1.3  Lca=       .5   S=  789.0  Kn= .050  LAG=  17.0
195          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
196          BA     .57
197          LG     .38     .35    4.24     .42   12.00
198          UI    160.    607.   1074.    802.    556.    393.    270.    184.    131.     88.
199          UI     57.     43.     22.     22.     22.      0.      0.      0.      0.      0.
200          ZZ
1
                 SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

    50        S800
                 .
                 .
    59           .        S810
                 .           .
                 .           .
    68      ALL800............
                 .
                 .
    71           .          S1
                 .           .
                 .           .
    83           .           .          U1
                 .           .           .
                 .           .           .
    95           .           .           .          V1
                 .           .           .           .
                 .           .           .           .
   106           .           .           .           .          W1
                 .           .           .           .           V
                 .           .           .           .           V
   117           .           .           .           .       W1-1W
                 .           .           .           .           .
                 .           .           .           .           .
   126           .           .           .           .           .         W2A
                 .           .           .           .           .           .
                 .           .           .           .           .           .
   138           .           .           .           .        CW2A...........
                 .           .           .           .           V
                 .           .           .           .           V
   141           .           .           .           .      W2AX1I
                 .           .           .           .           .
                 .           .           .           .           .
   150           .           .           .           .           .          X1
                 .           .           .           .           .           V
                 .           .           .           .           .           V
   161           .           .           .           .           .      X1-X1I
                 .           .           .           .           .           .
                 .           .           .           .           .           .
   168           .           .           .           .        CX1I...........
                 .           .           .           .           V
                 .           .           .           .           V
   171           .           .           .           .      X1I-1W
                 .           .           .           .           .
                 .           .           .           .           .
   180           .           .           .           .           .          W2
                 .           .           .           .           .           .
                 .           .           .           .           .           .
   191           .           .           .           .           .           .          Y1

 (***) RUNOFF ALSO COMPUTED AT THIS LOCATION
1*****************************************                                    *****************************************
 *                                       *                                    *                                       *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *                                    *    U.S. ARMY CORPS OF ENGINEERS       *
 *              JUN   1998               *                                    *    HYDROLOGIC ENGINEERING CENTER      *
 *            VERSION 4.1                *                                    *          609 SECOND STREET            *
 *                                       *                                    *       DAVIS, CALIFORNIA 95616         *
 *  RUN DATE   19APR06  TIME  15:48:10   *                                    *           (916) 756-1104              *
 *                                       *                                    *                                       *
 *****************************************                                    *****************************************
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HYDROLOGY FOR STEP 2 ALTERNATIVES FOR SUN VALLEY ADMP
- FRS NO. 2 & 3 SUBBAREA
- ALTERNATIVE A

Alternative Description
The main design objective of the A Alternative is to allow the natural geomorphic processes to occur within a designated active area downstream of the apex. The objective then is to control the flow path downstream of the region of uncertainty. The flows will be captured in the up-fan area by excavated collector channels and/or diversion levees. Once collected, the flows are routed downstream using leveed corridors similar to the B alternatives.

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                    JE FULLER/ HYDROLOGY & GEOMORPHOLOGY, INC.
                   JANUARY 2006

                    MODEL BASED ON S800 SERIES PORTIONS OF:

                        FCDMC
                        A4_EX24 - SVADMP - Area 4 Existing Conditions 100-yr 24-hr
                        Major Basin: 01
                        100 Year - Return Period
                        24 Hour Storm
                        Multiple Storms
                        Unit Hydrograph: S-Graph
                        10/04/2005


                    AND BASED ON PORTIONS OF:

                         WHITE TANK WASH FDS (ALPHA, 1996)


36 IO          OUTPUT CONTROL VARIABLES
                     IPRNT           5  PRINT CONTROL
                     IPLOT           0  PLOT CONTROL
                     QSCAL          0.  HYDROGRAPH PLOT SCALE

   IT          HYDROGRAPH TIME DATA
                      NMIN           5  MINUTES IN COMPUTATION INTERVAL
                     IDATE      1JAN99  STARTING DATE
                     ITIME        1200  STARTING TIME
                        NQ        2000  NUMBER OF HYDROGRAPH ORDINATES
                    NDDATE      8JAN99  ENDING DATE
                    NDTIME        1035  ENDING TIME
                     ICENT          19  CENTURY MARK

               COMPUTATION INTERVAL     .08 HOURS
                    TOTAL TIME BASE  166.58 HOURS

        ENGLISH UNITS
             DRAINAGE AREA          SQUARE MILES
             PRECIPITATION DEPTH    INCHES
             LENGTH, ELEVATION      FEET
             FLOW                   CUBIC FEET PER SECOND
             STORAGE VOLUME         ACRE-FEET
             SURFACE AREA           ACRES
             TEMPERATURE            DEGREES FAHRENHEIT

37 JD          INDEX STORM NO. 1
                      STRM        4.20  PRECIPITATION DEPTH
                      TRDA         .10  TRANSPOSITION DRAINAGE AREA

38 PI            PRECIPITATION PATTERN
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
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                     .01       .01       .01       .01       .01       .01       .01       .01       .03       .03
                     .03       .09       .09       .09       .01       .01       .01       .01       .01       .01
                     .01       .01       .01       .01       .01       .01       .00       .00       .00       .00
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
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                     .00       .00       .00       .00       .00       .00       .00       .00

48 JD          INDEX STORM NO. 2
                      STRM        3.99  PRECIPITATION DEPTH
                      TRDA       10.00  TRANSPOSITION DRAINAGE AREA

 0 PI            PRECIPITATION PATTERN
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
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                .01       .01       .01       .01       .01       .01       .01       .01       .03       .03
                .03       .09       .09       .09       .01       .01       .01       .01       .01       .01
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                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00
49 JD         INDEX STORM NO. 3
                STRM        3.78  PRECIPITATION DEPTH
                TRDA       30.00  TRANSPOSITION DRAINAGE AREA

 0 PI           PRECIPITATION PATTERN
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
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                .00       .00       .00       .00       .00       .00       .00       .01       .00       .01
                .01       .01       .01       .01       .01       .01       .01       .01       .03       .03
                .03       .09       .09       .09       .01       .01       .01       .01       .01       .01
                .01       .01       .01       .01       .01       .01       .00       .00       .00       .00
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                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
1
                                                RUNOFF SUMMARY
                                        FLOW IN CUBIC FEET PER SECOND
                                      TIME IN HOURS,  AREA IN SQUARE MILES

                                    PEAK   TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN    MAXIMUM    TIME OF
        OPERATION        STATION    FLOW    PEAK                                           AREA     STAGE    MAX STAGE
+                                                     6-HOUR     24-HOUR     72-HOUR

        HYDROGRAPH AT
+                          S800      474.   12.25        61.         16.          5.       .43

        HYDROGRAPH AT
+                          S810     1387.   12.33       209.         54.         18.      1.61

        2 COMBINED AT
+                        ALL800     1819.   12.33       268.         70.         23.      2.04

        HYDROGRAPH AT
+                            S1     1520.   12.33       213.         56.         19.      1.46

        HYDROGRAPH AT
+                            U1     1540.   12.25       214.         57.         19.      1.39

        HYDROGRAPH AT
+                            V1      599.   12.42        99.         28.          9.       .70

        HYDROGRAPH AT
+                            W1     3228.   12.42       562.        159.         53.      3.95

        ROUTED TO
+                         W1-1W     3080.   12.58       561.        159.         53.      3.95

        HYDROGRAPH AT
+                           W2A      714.   12.33       106.         29.         10.       .77

        2 COMBINED AT
+                          CW2A     3533.   12.50       662.        187.         62.      4.72
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          ROUTED TO
+                        W2AX1I     3525.   12.58        662.       187.        62.      4.72

          HYDROGRAPH AT
+                            X1      714.   12.33        106.        29.        10.       .77

          ROUTED TO
+                        X1-X1I      705.   12.33        106.        29.        10.       .77

          2 COMBINED AT
+                          CX1I     4018.   12.50        763.       215.        72.      5.49

          ROUTED TO
+                        X1I-1W     3997.   12.58        763.       215.        72.      5.49

          HYDROGRAPH AT
+                            W2     2472.   12.33        325.        84.        28.      2.69

          HYDROGRAPH AT
+                            Y1      848.   12.08         79.        22.         7.       .57

 *** NORMAL END OF HEC-1 ***
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1****************************************                                    ****************************************
 *                                      *                                    *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                    *   U.S. ARMY CORPS OF ENGINEERS       *
 *              JUN   1998              *                                    *   HYDROLOGIC ENGINEERING CENTER      *
 *           VERSION 4.1                *                                    *         609 SECOND STREET            *
 *                                      *                                    *      DAVIS, CALIFORNIA 95616         *
 * RUN DATE   19APR06  TIME  15:53:01   *                                    *          (916) 756-1104              *
 *                                      *                                    *                                      *
 ****************************************                                    ****************************************

                                        X     X  XXXXXXX   XXXXX           X
                                        X     X  X        X     X         XX
                                        X     X  X        X                X
                                        XXXXXXX  XXXX     X        XXXXX   X
                                        X     X  X        X                X
                                        X     X  X        X     X          X
                                        X     X  XXXXXXX   XXXXX         XXX

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                HEC-1 INPUT                                                    PAGE  1

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

            1           ID    HYDROLOGY FOR STEP 2 ALTERNATIVES FOR SUN VALLEY ADMP
            2           ID       - FRS NO. 2 & 3 SUBBAREA
            3           ID       - ALTERNATIVE B2
            4           ID
            5           ID   Alternative Description
            6           ID   The purpose of Alternative B is to capture the upstream flow at the
            7           ID   apex using online detention basins.  The presence of the detention
            8           ID   basins eliminates the downstream alluvial fan uncertainties by
            9           ID   controlling the flow from the apices to the outfall.  Alternative B2
           10           ID   is based on using a relatively smaller on-line detention basin at the
           11           ID   apex accompanied by larger leveed channel sections in the down fan
           12           ID   direction.
           13           ID
           14           ID
           15           ID    JE FULLER/ HYDROLOGY & GEOMORPHOLOGY, INC.
           16           ID    JANUARY 2006
           17           ID
           18           ID    MODEL BASED ON S800 SERIES PORTIONS OF:
           19           ID
           20           ID        A4_EX6 - SVADMP - Area 4 Existing Conditions 100-yr 6-hr
           21           ID        Major Basin: 01
           22           ID        100 Year - Return Period
           23           ID        6 Hour Storm
           24           ID        Multiple Storms
           25           ID        Unit Hydrograph: S-Graph
           26           ID        10/04/2005
           27           ID
           28           ID
           29           ID    AND BASED ON PORTIONS OF:
           30           ID
           31           ID         WHITE TANK WASH FDS (ALPHA, 1996)
           32           ID
           33           IT       5  1JAN99    1200    2000
           34           IN      15
           35           IO       5
                       *DIAGRAM
                       *
           36           JD   3.196  0.1000
           37           PC   0.000   0.008   0.016   0.025   0.033   0.041   0.050   0.058   0.066   0.074
           38           PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931   0.950
           39           PC   0.962   0.972   0.983   0.991   1.000
           40           JD   3.181  0.5000
           41           PC   0.000   0.008   0.016   0.025   0.033   0.041   0.050   0.058   0.066   0.074
           42           PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931   0.950
           43           PC   0.962   0.972   0.983   0.991   1.000
           44           JD   3.120     2.8
           45           PC   0.000   0.009   0.016   0.025   0.034   0.042   0.051   0.059   0.068   0.077
           46           PC   0.088   0.101   0.121   0.164   0.253   0.451   0.694   0.836   0.900   0.938
           47           PC   0.950   0.963   0.975   0.988   1.000
           48           JD   2.950    16.0
           49           PC   0.000   0.015   0.020   0.030   0.048   0.063   0.076   0.090   0.105   0.119
           50           PC   0.135   0.152   0.175   0.222   0.304   0.472   0.670   0.796   0.868   0.912
           51           PC   0.946   0.960   0.973   0.987   1.000
           52           JD   2.592    90.0
           53           PC   0.000   0.021   0.035   0.051   0.071   0.087   0.105   0.125   0.143   0.160
1                                                HEC-1 INPUT                                                    PAGE  2
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  54          PC   0.179   0.201   0.232   0.281   0.364   0.500   0.658   0.773   0.841   0.888
  55          PC   0.927   0.945   0.964   0.982   1.000
              *

  56          KK    S800   BASIN
  57          KM        Compute runoff from subbasin 800
  58          BA   0.431
  59          LG    0.27    0.35    4.60    0.34       9
  60          UI      49     118     252     353     489     442     297     255     213     170
  61          UI     134     113      92      69      57      48      38      29      24      25
  62          UI      12       9      10       9      10       9      10       0       0       0
  63          UI       0       0       0       0       0       0       0       0       0       0
  64          UI       0       0       0       0       0       0       0       0       0       0
              *

  65          KK  800CHL   ROUTE
  66          KM   PROPOSED CHANNEL
  67          KM    ROUTE S800 RUNOFF FROM APEX TO FRS
  68          KM    STRUCTURE ID(s): 80010
  69          KM    Slope=(1129.3 - 1105.8) / 1366.3
  70          RS       3    FLOW      -1
  71          RC   0.045   0.045   0.045  1366.30.017151   104.5
  72          RX     0.0    13.5    13.5    13.5   113.5   113.5   113.5   127.0
  73          RY   104.5   100.0   100.0   100.0   100.0   100.0   100.0   104.5
              *

  74          KK    S810   BASIN
  75          KM        Compute runoff from subbasin 810
  76          BA   1.607
  77          LG    0.30    0.35    4.65    0.32       4
  78          UI     140     200     493     790     997    1196    1589    1066     843     750
  79          UI     668     569     489     397     336     309     256     202     176     155
  80          UI     130     106     102      68      68      69      46      27      27      27
  81          UI      26      27      27      27      27       0       0       0       0       0
  82          UI       0       0       0       0       0       0       0       0       0       0
              *

  83          KK  810CHL   ROUTE
  84          KM   PROPOSED CHANNEL
  85          KM    ROUTE S810 RUNOFF FROM APEX TO FRS
  86          KM    STRUCTURE ID(s): 81010
  87          KM    Slope=(1133.1 - 1105.8) / 2054.8
  88          RS       3    FLOW      -1
  89          RC   0.045   0.045   0.045  2054.80.013242   105.0
  90          RX     0.0    15.0    15.0    15.0   235.0   235.0   235.0   250.0
  91          RY   105.0   100.0   100.0   100.0   100.0   100.0   100.0   105.0
              *

  92          KK  ALL800 COMBINE
  93          KM        combination of all 800 series hydrographs AT FRS NO 2.
  94          HC       2
              *
              * THE FOLLOWING PORTIONS ARE FROM THE WHITE TANK WASH FDS (ALPHA, 1996)
              *
              * White Tanks Wash Flood Insurance Study - 7-July-93 - JRB
              * ALPHA Engineering Group Inc. - 5 minute interval - 24 Hour Storm
              *
1                                          HEC-1 INPUT                                          PAGE  3

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  95          KK      S1   BASIN
  96          KM   BASIN S1
  97          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
  98          KM    L=       2.4  Lca=       .7   S=  140.0  Kn= .050  LAG=  33.0
  99          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 100          BA    1.46
 101          LG     .19     .35    3.77     .31    7.00
 102          UI    149.    284.    668.    981.   1216.   1674.   1082.    874.    754.    644.
 103          UI    540.    422.    356.    320.    240.    191.    166.    138.    114.     92.
 104          UI     73.     73.     54.     29.     29.     29.     29.     29.     29.     29.
 105          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
 106          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *

 107          KK      U1   BASIN
 108          KM   BASIN U1
 109          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 110          KM    L=       2.1  Lca=       1.1   S=  377.0  Kn= .050  LAG=  32.0
 111          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 112          BA    1.39
 113          LG     .26     .37    4.74     .22    8.00
 114          UI    147.    294.    688.    987.   1245.   1598.   1002.    831.    714.    602.
 115          UI    493.    381.    338.    278.    212.    177.    159.    112.    107.     72.
 116          UI     72.     67.     28.     28.     28.     28.     28.     28.     28.      0.
 117          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
 118          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *

 119          KK      V1   BASIN
 120          KM   BASIN V1
 121          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
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 122          KM    L=      2.7  Lca=      1.6   S=  389.0  Kn= .050  LAG=  40.0
 123          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 124          BA     .70
 125          LG     .26     .35    4.24     .41   13.00
 126          UI     59.     76.    200.    320.    406.    481.    660.    503.    372.    329.
 127          UI    290.    254.    221.    183.    150.    138.    123.     97.     77.     70.
 128          UI     64.     49.     45.     39.     29.     29.     29.     18.     11.     11.
 129          UI     11.     11.     11.     11.     11.     11.      0.      0.      0.      0.
              *

 130          KK      W1   BASIN
 131          KM   BASIN W1
 132          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 133          KM    L=      3.3  Lca=      1.6   S=  522.0  Kn= .050  LAG=  42.0
 134          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 135          BA    3.95
 136          LG     .30     .35    4.24     .40   15.00
 137          UI    317.    357.   1030.   1615.   2095.   2456.   3182.   3308.   2176.   1862.
 138          UI   1658.   1480.   1292.   1120.    914.    790.    722.    635.    518.    405.
 139          UI    375.    347.    270.    243.    223.    155.    155.    155.    129.     61.
 140          UI     61.     61.     61.     61.     61.     61.     61.     61.      0.      0.
              *
1                                          HEC-1 INPUT                                          PAGE  4

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 141          KK    RRW1 STORAGE
 142          KM   PROPOSED DETENTION BASIN
 143          KM    ROUTE RUNOFF FROM SUBBASIN W1 THROUGH PROPOSED DETENTION BASIN
 144          KM    outlet pipe of 5 ft diameter assumed
 145          KM    STRUCTURE ID:RRW1
 146          KM    DIMENSIONS: L=650ft, W=340ft, D=9ft, Sideslope (?H:1V)= 3,  Vol.= 32.8 ac-ft
 147          RS       1    STOR       0
 148          SV     0.0     7.5    15.4    23.9    32.8    37.5    42.3    47.3    52.4    57.6
 149          SE     0.0     2.0     4.0     6.0     8.0     9.0    10.0    11.0    12.0    13.0
 150          SQ     0.0  1604.4  2269.0  2779.0  3208.9  3403.5  3587.6  3762.7  3930.0  4090.5
              *

 151          KK   W1-1W   ROUTE
 152          KM   PROPOSED CHANNEL
 153          KM    ROUTE OUTFLOW FROM RRW1 VIA EAST CHANNEL ALIGNMENT THRU W2 TO INSET FAN APEX
 154          KM    STRUCTURE ID(s): W130, W135
 155          KM    Slope=(1361.3 - 1221.6) / 7444.4
 156          RS       3    FLOW      -1
 157          RC   0.045   0.045   0.045  7444.40.018766   104.5
 158          RX     0.0    13.5    13.5    13.5   413.5   413.5   413.5   427.0
 159          RY   104.5   100.0   100.0   100.0   100.0   100.0   100.0   104.5
              *

 160          KK     W2A   BASIN
 161          KM   ASSUMED SAME AS BASIN X1 - USED TO REPRESENT HILLSLOPE WATERSHED CONTRIBUTING
 162          KM   TO EAST SIDE OF SKYLINE FAN
 163          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 164          KM    L=      2.3  Lca=      1.4   S=  457.0  Kn= .050  LAG=  35.0
 165          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 166          BA     .77
 167          LG     .28     .35    4.30     .43   12.00
 168          UI     74.    129.    301.    465.    569.    776.    674.    466.    404.    351.
 169          UI    300.    248.    196.    175.    151.    117.     95.     82.     70.     57.
 170          UI     50.     36.     36.     35.     14.     14.     14.     14.     14.     14.
 171          UI     14.     14.      0.      0.      0.      0.      0.      0.      0.      0.
              *

 172          KK    CW2A COMBINE
 173          KM    COMBINE RUNOFF FROM HILLSLOPE WATERSHED WITH ROUTED FLOW FROM SKYLINE FAN AP
 174          HC       2
              *

 175          KK   RRW2A STORAGE
 176          KM   PROPOSED DETENTION BASIN
 177          KM    ROUTE COMBINED FLOW THROUGH PROPOSED DETENTION BASIN AT INSET FAN ON EAST SI
 178          KM    outlet pipe of 5 ft diameter assumed
 179          KM    STRUCTURE ID:RRW2A
 180          KM    DIMENSIONS: L=600ft, W=340ft, D=9ft, Sideslope (?H:1V)= 3,  Vol.= 30.4 ac-ft
 181          RS       1    STOR       0
 182          SV     0.0     6.9    14.2    18.1    22.1    26.2    30.4    34.7    39.2    48.5
 183          SE     0.0     2.0     4.0     5.0     6.0     7.0     8.0     9.0    10.0    12.0
 184          SQ     0.0  1337.0  1890.8  2114.0  2315.8  2501.3  2674.0  2836.3  2989.7  3275.0
              *
1                                          HEC-1 INPUT                                          PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 185          KK  W2AX1I   ROUTE
 186          KM   PROPOSED CHANNEL
 187          KM    ROUTE OUTFLOW FROM RRW2A TO CONFLUENCE WITH OUTFLOW FROM RRX1 IN PROPOSED CH
 188          KM    STRUCTURE ID(s): W140
 189          KM    Slope=(1221.6 - 1184.0) / 2235.9
 190          RS       1    FLOW      -1
 191          RC   0.045   0.045   0.045  2235.90.016851   104.5
 192          RX     0.0    13.5    13.5    13.5   413.5   413.5   413.5   427.0
 193          RY   104.5   100.0   100.0   100.0   100.0   100.0   100.0   104.5
              *
```

```
 194          KK      X1   BASIN
 195          KM   BASIN X1
 196          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 197          KM    L=       2.3  Lca=      1.4   S=  457.0  Kn= .050  LAG=  35.0
 198          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 199          BA     .77
 200          LG     .28      .35    4.30      .43   12.00
 201          UI     74.     129.    301.     465.    569.    776.    674.    466.    404.    351.
 202          UI    300.     248.    196.     175.    151.    117.     95.     82.     70.     57.
 203          UI     50.      36.     36.      35.     14.     14.     14.     14.     14.     14.
 204          UI     14.      14.      0.       0.      0.      0.      0.      0.      0.      0.
              *

 205          KK    RRX1 STORAGE
 206          KM   PROPOSED DETENTION BASIN
 207          KM    ROUTE RUNOFF FROM X1 THROUGH PROPOSED DETENTION BASIN
 208          KM    outlet pipe of 2.5 ft diameter assumed
 209          KM    STRUCTURE ID:RRX1
 210          KM    DIMENSIONS: L=350ft, W=230ft, D=5ft, Sideslope (?H:1V)= 3,  Vol.= 5.8 ac-ft
 211          RS       1    STOR       0
 212          SV     0.0      0.7     1.3      2.8     4.3     5.8     7.5     9.2    11.0    12.9
 213          SE     0.0      0.5     1.0      2.0     3.0     4.0     5.0     6.0     7.0     8.0
 214          SQ     0.0    299.5   423.5    599.0   733.6   847.1   947.1  1037.5  1120.6  1198.0
              *

 215          KK  X1-X1I   ROUTE
 216          KM   PROPOSED CHANNEL
 217          KM    ROUTE OUTFLOW FROM RRX1 TO CONFLUENCE WITH PROPOSED NEW CHANNEL FROM RRW2A
 218          KM    STRUCTURE ID(s): X110
 219          KM    Slope=(1198.1 - 1184.0) /  861.7
 220          RS       1    FLOW      -1
 221          RC   0.045   0.045   0.045   861.7 0.01639   104.5
 222          RX     0.0    13.5    13.5    13.5   153.5   153.5   153.5   167.0
 223          RY   104.5   100.0   100.0   100.0   100.0   100.0   100.0   104.5
              *

 224          KK    CX1I COMBINE
 225          KM    COMBINE ROUTED FLOW FROM RRX1 AND RRW2A
 226          HC       2
              *
1                                        HEC-1 INPUT                                                PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 227          KK  X1I-1W   ROUTE
 228          KM   PROPOSED CHANNEL
 229          KM    ROUTE OUTFLOW FROM RRX1 TO FRS NO. 3 VIA PROPOSED NEW CHANNEL
 230          KM    STRUCTURE ID(s): W150
 231          KM    Slope=(1184.0 - 1152.1) / 1648.8
 232          RS       1    FLOW      -1
 233          RC   0.045   0.045   0.045  1648.80.019313   104.5
 234          RX     0.0    13.5    13.5    13.5   413.5   413.5   413.5   427.0
 235          RY   104.5   100.0   100.0   100.0   100.0   100.0   100.0   104.5
              *

 236          KK      W2   BASIN
 237          KM   BASIN W2
 238          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 239          KM    L=       2.3  Lca=      1.1   S=  422.0  Kn= .050  LAG=  33.0
 240          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 241          BA    2.69
 242          LG     .27      .35    4.19      .40    3.00
 243          UI    274.     522.   1229.    1805.   2237.   3080.   1992.   1608.   1388.   1185.
 244          UI    993.     777.    656.     588.    442.    351.    306.    255.    210.    170.
 245          UI    134.     134.     99.      53.     53.     53.     53.     53.     53.     53.
 246          UI      0.       0.      0.       0.      0.      0.      0.      0.      0.      0.
              *

 247          KK      Y1   BASIN
 248          KM   BASIN Y1
 249          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 250          KM    L=       1.3  Lca=       .5   S=  789.0  Kn= .050  LAG=  17.0
 251          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 252          BA     .57
 253          LG     .38      .35    4.24      .42   12.00
 254          UI    160.     607.   1074.     802.    556.    393.    270.    184.    131.     88.
 255          UI     57.      43.     22.      22.     22.      0.      0.      0.      0.      0.
 256          ZZ
1
          SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE     (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.     (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

   56        S800
                V
                V
   65      800CHL
                .
                .
   74           .        S810
                .           V
```

```
                .          V
   83           .      810CHL
                .          .
                .          .
   92      ALL800............
                .
                .
   95           .         S1
                .          .
                .          .
  107           .          .         U1
                .          .          .
                .          .          .
  119           .          .          .         V1
                .          .          .          .
                .          .          .          .
  130           .          .          .          .         W1
                .          .          .          .          V
                .          .          .          .          V
  141           .          .          .          .       RRW1
                .          .          .          .          V
                .          .          .          .          V
  151           .          .          .          .      W1-1W
                .          .          .          .          .
                .          .          .          .          .
  160           .          .          .          .          .         W2A
                .          .          .          .          .           .
                .          .          .          .          .           .
  172           .          .          .          .      CW2A............
                .          .          .          .          V
                .          .          .          .          V
  175           .          .          .          .      RRW2A
                .          .          .          .          V
                .          .          .          .          V
  185           .          .          .          .     W2AX1I
                .          .          .          .          .
                .          .          .          .          .
  194           .          .          .          .          .          X1
                .          .          .          .          .           V
                .          .          .          .          .           V
  205           .          .          .          .          .        RRX1
                .          .          .          .          .           V
                .          .          .          .          .           V
  215           .          .          .          .          .      X1-X1I
                .          .          .          .          .           .
                .          .          .          .          .           .
  224           .          .          .          .      CX1I............
                .          .          .          .          V
                .          .          .          .          V
  227           .          .          .          .     X1I-1W
                .          .          .          .          .
                .          .          .          .          .
  236           .          .          .          .          .          W2
                .          .          .          .          .           .
                .          .          .          .          .           .
  247           .          .          .          .          .           .          Y1
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

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1****************************************                                    ****************************************
 *                                      *                                    *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                    *   U.S. ARMY CORPS OF ENGINEERS       *
 *              JUN   1998              *                                    *   HYDROLOGIC ENGINEERING CENTER      *
 *           VERSION 4.1                *                                    *         609 SECOND STREET            *
 *                                      *                                    *      DAVIS, CALIFORNIA 95616         *
 *  RUN DATE   19APR06  TIME  15:53:01  *                                    *          (916) 756-1104              *
 *                                      *                                    *                                      *
 ****************************************                                    ****************************************
```

HYDROLOGY FOR STEP 2 ALTERNATIVES FOR SUN VALLEY ADMP
- FRS NO. 2 & 3 SUBBAREA
- ALTERNATIVE B2

Alternative Description
The purpose of Alternative B is to capture the upstream flow at the apex using online detention basins. The presence of the detention basins eliminates the downstream alluvial fan uncertainties by controlling the flow from the apices to the outfall. Alternative B2 is based on using a relatively smaller on-line detention basin at the apex accompanied by larger leveed channel sections in the down fan direction.

JE FULLER/ HYDROLOGY & GEOMORPHOLOGY, INC.
JANUARY 2006

MODEL BASED ON S800 SERIES PORTIONS OF:

A4_EX6 - SVADMP - Area 4 Existing Conditions 100-yr 6-hr
Major Basin: 01
100 Year - Return Period
6 Hour Storm

```
                    Multiple Storms
                    Unit Hydrograph: S-Graph
                    10/04/2005

                AND BASED ON PORTIONS OF:

                     WHITE TANK WASH FDS (ALPHA, 1996)

 35 IO        OUTPUT CONTROL VARIABLES
                    IPRNT          5  PRINT CONTROL
                    IPLOT          0  PLOT CONTROL
                    QSCAL         0.  HYDROGRAPH PLOT SCALE

    IT        HYDROGRAPH TIME DATA
                     NMIN          5  MINUTES IN COMPUTATION INTERVAL
                    IDATE     1JAN99  STARTING DATE
                    ITIME       1200  STARTING TIME
                       NQ       2000  NUMBER OF HYDROGRAPH ORDINATES
                   NDDATE     8JAN99  ENDING DATE
                   NDTIME       1035  ENDING TIME
                    ICENT         19  CENTURY MARK

              COMPUTATION INTERVAL     .08 HOURS
                   TOTAL TIME BASE  166.58 HOURS

         ENGLISH UNITS
              DRAINAGE AREA          SQUARE MILES
              PRECIPITATION DEPTH    INCHES
              LENGTH, ELEVATION      FEET
              FLOW                   CUBIC FEET PER SECOND
              STORAGE VOLUME         ACRE-FEET
              SURFACE AREA           ACRES
              TEMPERATURE            DEGREES FAHRENHEIT

 36 JD        INDEX STORM NO. 1
                     STRM       3.20  PRECIPITATION DEPTH
                     TRDA        .10  TRANSPOSITION DRAINAGE AREA

 37 PI          PRECIPITATION PATTERN
                   .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                   .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                   .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                   .00       .00       .00       .01       .01       .01       .01       .01       .01       .03
                   .03       .03       .05       .05       .05       .15       .15       .15       .03       .03
                   .03       .01       .01       .01       .01       .01       .01       .00       .00       .00
                   .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                   .00       .00

 40 JD        INDEX STORM NO. 2
                     STRM       3.18  PRECIPITATION DEPTH
                     TRDA        .50  TRANSPOSITION DRAINAGE AREA

 41 PI          PRECIPITATION PATTERN
                   .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                   .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                   .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                   .00       .00       .00       .01       .01       .01       .01       .01       .01       .03
                   .03       .03       .05       .05       .05       .15       .15       .15       .03       .03
                   .03       .01       .01       .01       .01       .01       .01       .00       .00       .00
                   .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                   .00       .00

 44 JD        INDEX STORM NO. 3
                     STRM       3.12  PRECIPITATION DEPTH
                     TRDA       2.80  TRANSPOSITION DRAINAGE AREA

 45 PI          PRECIPITATION PATTERN
                   .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                   .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                   .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                   .00       .00       .00       .01       .01       .01       .01       .01       .01       .03
                   .03       .03       .07       .07       .07       .08       .08       .08       .05       .05
                   .05       .02       .02       .02       .01       .01       .01       .00       .00       .00
                   .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                   .00       .00

 48 JD        INDEX STORM NO. 4
                     STRM       2.95  PRECIPITATION DEPTH
                     TRDA      16.00  TRANSPOSITION DRAINAGE AREA

 49 PI          PRECIPITATION PATTERN
                   .01       .01       .00       .00       .00       .00       .00       .00       .00       .01
                   .01       .01       .00       .01       .00       .00       .00       .00       .00       .00
                   .00       .00       .01       .00       .00       .00       .00       .01       .01       .01
                   .01       .01       .01       .01       .01       .01       .02       .02       .02       .03
                   .03       .03       .06       .06       .06       .07       .07       .07       .04       .04
                   .04       .02       .02       .02       .01       .01       .01       .01       .01       .01
                   .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                   .00       .00

 52 JD        INDEX STORM NO. 5
                     STRM       2.59  PRECIPITATION DEPTH
                     TRDA      90.00  TRANSPOSITION DRAINAGE AREA
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```
  53 PI            PRECIPITATION PATTERN
                      .01       .01       .01       .00       .00       .00       .01       .01       .01       .01
                      .01       .01       .01       .01       .01       .01       .01       .01       .01       .01
                      .01       .01       .01       .01       .01       .01       .01       .01       .01       .01
                      .01       .01       .01       .01       .01       .01       .02       .02       .02       .03
                      .03       .03       .05       .05       .05       .05       .05       .05       .04       .04
                      .04       .02       .02       .02       .02       .02       .02       .01       .01       .01
                      .01       .01       .01       .01       .01       .01       .01       .01       .01       .01
                      .01       .01
1
                                                    RUNOFF SUMMARY
                                              FLOW IN CUBIC FEET PER SECOND
                                            TIME IN HOURS,  AREA IN SQUARE MILES

                                                PEAK   TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM     TIME OF
          OPERATION        STATION             FLOW    PEAK                                            AREA      STAGE     MAX STAGE
+                                                                    6-HOUR     24-HOUR     72-HOUR

          HYDROGRAPH AT
+                            S800               595.    4.25          74.         18.          6.       .43

          ROUTED TO
+                          800CHL               591.    4.33          74.         18.          6.       .43

          HYDROGRAPH AT
+                            S810              1355.    4.42         225.         56.         19.      1.61

          ROUTED TO
+                          810CHL              1339.    4.50         225.         56.         19.      1.61

          2 COMBINED AT
+                          ALL800              1618.    4.42         279.         70.         23.      2.04

          HYDROGRAPH AT
+                             S1               1537.    4.33         238.         60.         20.      1.46

          HYDROGRAPH AT
+                             U1               1553.    4.33         239.         60.         20.      1.39

          HYDROGRAPH AT
+                             V1                707.    4.42         114.         29.         10.       .70

          HYDROGRAPH AT
+                             W1               2581.    4.42         533.        134.         45.      3.95

          ROUTED TO
+                           RRW1               2409.    4.58         533.        134.         45.      3.95

          ROUTED TO
+                          W1-1W               2274.    4.83         529.        134.         45.      3.95

          HYDROGRAPH AT
+                            W2A                818.    4.33         120.         30.         10.       .77

          2 COMBINED AT
+                           CW2A               2479.    4.83         608.        155.         52.      4.72

          ROUTED TO
+                          RRW2A               2303.    5.00         608.        155.         52.      4.72

          ROUTED TO
+                         W2AX1I               2283.    5.08         606.        155.         52.      4.72

          HYDROGRAPH AT
+                             X1                818.    4.33         120.         30.         10.       .77

          ROUTED TO
+                           RRX1                736.    4.42         120.         30.         10.       .77

          ROUTED TO
+                          X1-X1I               735.    4.50         120.         30.         10.       .77

          2 COMBINED AT
+                           CX1I               2433.    5.00         683.        174.         58.      5.49

          ROUTED TO
+                         X1I-1W               2425.    5.08         682.        174.         58.      5.49

          HYDROGRAPH AT
+                             W2                1993.    4.33         317.         79.         26.      2.69

          HYDROGRAPH AT
+                             Y1                1029.    4.08          91.         23.          8.       .57

*** NORMAL END OF HEC-1 ***
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1****************************************                                    ****************************************
 *                                      *                                    *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                    *   U.S. ARMY CORPS OF ENGINEERS       *
 *              JUN  1998               *                                    *   HYDROLOGIC ENGINEERING CENTER      *
 *           VERSION 4.1                *                                    *         609 SECOND STREET            *
 *                                      *                                    *      DAVIS, CALIFORNIA 95616         *
 *  RUN DATE   19APR06  TIME  15:53:01  *                                    *          (916) 756-1104              *
 *                                      *                                    *                                      *
 ****************************************                                    ****************************************

                                        X     X  XXXXXXX   XXXXX           X
                                        X     X  X        X     X         XX
                                        X     X  X        X                X
                                        XXXXXXX  XXXX     X        XXXXX   X
                                        X     X  X        X                X
                                        X     X  X        X     X          X
                                        X     X  XXXXXXX   XXXXX         XXX

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                HEC-1 INPUT                                                    PAGE  1

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

            1           ID    HYDROLOGY FOR STEP 2 ALTERNATIVES FOR SUN VALLEY ADMP
            2           ID       - FRS NO. 2 & 3 SUBBAREA
            3           ID       - ALTERNATIVE B2
            4           ID
            5           ID   Alternative Description
            6           ID   The purpose of Alternative B is to capture the upstream flow at the
            7           ID   apex using online detention basins.  The presence of the detention
            8           ID   basins eliminates the downstream alluvial fan uncertainties by
            9           ID   controlling the flow from the apices to the outfall.  Alternative B2
           10           ID   is based on using a relatively smaller on-line detention basin at the
           11           ID   apex accompanied by larger leveed channel sections in the down fan
           12           ID   direction.
           13           ID
           14           ID
           15           ID    JE FULLER/ HYDROLOGY & GEOMORPHOLOGY, INC.
           16           ID    JANUARY 2006
           17           ID
           18           ID    MODEL BASED ON S800 SERIES PORTIONS OF:
           19           ID
           20           ID        FCDMC
           21           ID        A4_EX24 - SVADMP - Area 4 Existing Conditions 100-yr 24-hr
           22           ID        Major Basin: 01
           23           ID        100 Year - Return Period
           24           ID        24 Hour Storm
           25           ID        Multiple Storms
           26           ID        Unit Hydrograph: S-Graph
           27           ID        10/04/2005
           28           ID
           29           ID
           30           ID    AND BASED ON PORTIONS OF:
           31           ID
           32           ID         WHITE TANK WASH FDS (ALPHA, 1996)
           33           ID
           34           IT       5  1JAN99    1200    2000
           35           IN      15
           36           IO       5
                        *DIAGRAM
                        *
           37           JD   4.198  0.1000
           38           PC   0.000   0.002   0.005   0.008   0.011   0.014   0.017   0.020   0.023   0.026
           39           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056   0.060
           40           PC   0.064   0.068   0.072   0.076   0.080   0.085   0.090   0.095   0.100   0.105
           41           PC   0.110   0.115   0.120   0.126   0.133   0.140   0.147   0.155   0.163   0.172
           42           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
           43           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
           44           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
           45           PC   0.913   0.918   0.922   0.926   0.930   0.934   0.938   0.942   0.946   0.950
           46           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977   0.980
           47           PC   0.983   0.986   0.989   0.992   0.995   0.998   1.000
           48           JD   3.990    10.0
           49           JD   3.780    30.0
                        *
1                                                HEC-1 INPUT                                                    PAGE  2

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
 50          KK    S800   BASIN
 51          KM        Compute runoff from subbasin 800
 52          BA   0.431
 53          LG    0.27    0.35    4.60    0.34       9
 54          UI      49     118     252     353     489     442     297     255     213     170
 55          UI     134     113      92      69      57      48      38      29      24      25
 56          UI      12       9      10       9      10       9      10       0       0       0
 57          UI       0       0       0       0       0       0       0       0       0       0
 58          UI       0       0       0       0       0       0       0       0       0       0
             *

 59          KK  800CHL   ROUTE
 60          KM   PROPOSED CHANNEL
 61          KM    ROUTE S800 RUNOFF FROM APEX TO FRS
 62          KM    STRUCTURE ID(s): 80010
 63          KM    Slope=(1129.3 - 1105.8) / 1366.3
 64          RS       3    FLOW      -1
 65          RC   0.045   0.045   0.045  1366.30.017151   104.5
 66          RX     0.0    13.5    13.5    13.5   113.5   113.5   113.5   127.0
 67          RY   104.5   100.0   100.0   100.0   100.0   100.0   100.0   104.5
             *

 68          KK    S810   BASIN
 69          KM        Compute runoff from subbasin 810
 70          BA   1.607
 71          LG    0.30    0.35    4.65    0.32       4
 72          UI     140     200     493     790     997    1196    1589    1066     843     750
 73          UI     668     569     489     397     336     309     256     202     176     155
 74          UI     130     106     102      68      68      69      46      27      27      27
 75          UI      26      27      27      27      27       0       0       0       0       0
 76          UI       0       0       0       0       0       0       0       0       0       0
             *

 77          KK  810CHL   ROUTE
 78          KM   PROPOSED CHANNEL
 79          KM    ROUTE S810 RUNOFF FROM APEX TO FRS
 80          KM    STRUCTURE ID(s): 81010
 81          KM    Slope=(1133.1 - 1105.8) / 2054.8
 82          RS       3    FLOW      -1
 83          RC   0.045   0.045   0.045  2054.80.013242   105.0
 84          RX     0.0    15.0    15.0    15.0   235.0   235.0   235.0   250.0
 85          RY   105.0   100.0   100.0   100.0   100.0   100.0   100.0   105.0
             *

 86          KK  ALL800 COMBINE
 87          KM        combination of all 800 series hydrographs AT FRS NO 2.
 88          HC       2
             *
             * THE FOLLOWING PORTIONS ARE FROM THE WHITE TANK WASH FDS (ALPHA, 1996)
             *
             * White Tanks Wash Flood Insurance Study - 7-July-93 - JRB
             * ALPHA Engineering Group Inc. - 5 minute interval - 24 Hour Storm
             *
1                                    HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 89          KK      S1   BASIN
 90          KM   BASIN S1
 91          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 92          KM    L=       2.4  Lca=       .7   S=  140.0  Kn= .050  LAG=  33.0
 93          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 94          BA    1.46
 95          LG     .19     .35    3.77     .31    7.00
 96          UI    149.    284.    668.    981.   1216.   1674.   1082.    874.    754.    644.
 97          UI    540.    422.    356.    320.    240.    191.    166.    138.    114.     92.
 98          UI     73.     73.     54.     29.     29.     29.     29.     29.     29.     29.
 99          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
100          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
             *

101          KK      U1   BASIN
102          KM   BASIN U1
103          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
104          KM    L=       2.1  Lca=      1.1   S=  377.0  Kn= .050  LAG=  32.0
105          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
106          BA    1.39
107          LG     .26     .37    4.74     .22    8.00
108          UI    147.    294.    688.    987.   1245.   1598.   1002.    831.    714.    602.
109          UI    493.    381.    338.    278.    212.    177.    159.    112.    107.     72.
110          UI     72.     67.     28.     28.     28.     28.     28.     28.     28.      0.
111          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
112          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
             *

113          KK      V1   BASIN
114          KM   BASIN V1
115          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
116          KM    L=       2.7  Lca=      1.6   S=  389.0  Kn= .050  LAG=  40.0
117          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
118          BA     .70
119          LG     .26     .35    4.24     .41   13.00
120          UI     59.     76.    200.    320.    406.    481.    660.    503.    372.    329.
121          UI    290.    254.    221.    183.    150.    138.    123.     97.     77.     70.
```

```
 122          UI     64.     49.     45.     39.     29.     29.     29.     18.     11.     11.
 123          UI     11.     11.     11.     11.     11.     11.      0.      0.      0.      0.
              *

 124          KK      W1   BASIN
 125          KM    BASIN W1
 126          KM     THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 127          KM     L=      3.3  Lca=      1.6   S=  522.0  Kn= .050  LAG=  42.0
 128          KM     PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 129          BA     3.95
 130          LG      .30     .35    4.24     .40   15.00
 131          UI    317.    357.   1030.   1615.   2095.   2456.   3182.   3308.   2176.   1862.
 132          UI   1658.   1480.   1292.   1120.    914.    790.    722.    635.    518.    405.
 133          UI    375.    347.    270.    243.    223.    155.    155.    155.    129.     61.
 134          UI     61.     61.     61.     61.     61.     61.     61.     61.      0.      0.
              *
1                                          HEC-1 INPUT                                          PAGE  4

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 135          KK     RRW1 STORAGE
 136          KM    PROPOSED DETENTION BASIN
 137          KM     ROUTE RUNOFF FROM SUBBASIN W1 THROUGH PROPOSED DETENTION BASIN
 138          KM     outlet pipe of 5 ft diameter assumed
 139          KM     STRUCTURE ID:RRW1
 140          KM     DIMENSIONS: L=650ft, W=340ft, D=9ft, Sideslope (?H:1V)= 3,  Vol.= 32.8 ac-ft
 141          RS       1    STOR       0
 142          SV     0.0     7.5    15.4    23.9    32.8    37.5    42.3    47.3    52.4    57.6
 143          SE     0.0     2.0     4.0     6.0     8.0     9.0    10.0    11.0    12.0    13.0
 144          SQ     0.0  1604.4  2269.0  2779.0  3208.9  3403.5  3587.6  3762.7  3930.0  4090.5
              *

 145          KK    W1-1W   ROUTE
 146          KM    PROPOSED CHANNEL
 147          KM     ROUTE OUTFLOW FROM RRW1 VIA EAST CHANNEL ALIGNMENT THRU W2 TO INSET FAN APEX
 148          KM     STRUCTURE ID(s): W130, W135
 149          KM     Slope=(1361.3 - 1221.6) / 7444.4
 150          RS       3    FLOW      -1
 151          RC   0.045   0.045   0.045  7444.40.018766   104.5
 152          RX     0.0    13.5    13.5    13.5   413.5   413.5   413.5   427.0
 153          RY   104.5   100.0   100.0   100.0   100.0   100.0   100.0   104.5
              *

 154          KK      W2A   BASIN
 155          KM    ASSUMED SAME AS BASIN X1 - USED TO REPRESENT HILLSLOPE WATERSHED CONTRIBUTING
 156          KM    TO EAST SIDE OF SKYLINE FAN
 157          KM     THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 158          KM     L=      2.3  Lca=      1.4   S=  457.0  Kn= .050  LAG=  35.0
 159          KM     PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 160          BA      .77
 161          LG      .28     .35    4.30     .43   12.00
 162          UI     74.    129.    301.    465.    569.    776.    674.    466.    404.    351.
 163          UI    300.    248.    196.    175.    151.    117.     95.     82.     70.     57.
 164          UI     50.     36.     36.     35.     14.     14.     14.     14.     14.     14.
 165          UI     14.     14.      0.      0.      0.      0.      0.      0.      0.      0.
              *

 166          KK     CW2A COMBINE
 167          KM     COMBINE RUNOFF FROM HILLSLOPE WATERSHED WITH ROUTED FLOW FROM SKYLINE FAN AP
 168          HC       2
              *

 169          KK    RRW2A STORAGE
 170          KM    PROPOSED DETENTION BASIN
 171          KM     ROUTE COMBINED FLOW THROUGH PROPOSED DETENTION BASIN AT INSET FAN ON EAST SI
 172          KM     outlet pipe of 5 ft diameter assumed
 173          KM     STRUCTURE ID:RRW2A
 174          KM     DIMENSIONS: L=600ft, W=340ft, D=9ft, Sideslope (?H:1V)= 3,  Vol.= 30.4 ac-ft
 175          RS       1    STOR       0
 176          SV     0.0     6.9    14.2    18.1    22.1    26.2    30.4    34.7    39.2    48.5
 177          SE     0.0     2.0     4.0     5.0     6.0     7.0     8.0     9.0    10.0    12.0
 178          SQ     0.0  1337.0  1890.8  2114.0  2315.8  2501.3  2674.0  2836.3  2989.7  3275.0
              *
1                                          HEC-1 INPUT                                          PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 179          KK   W2AX1I   ROUTE
 180          KM    PROPOSED CHANNEL
 181          KM     ROUTE OUTFLOW FROM RRW2A TO CONFLUENCE WITH OUTFLOW FROM RRX1 IN PROPOSED CH
 182          KM     STRUCTURE ID(s): W140
 183          KM     Slope=(1221.6 - 1184.0) / 2235.9
 184          RS       1    FLOW      -1
 185          RC   0.045   0.045   0.045  2235.90.016851   104.5
 186          RX     0.0    13.5    13.5    13.5   413.5   413.5   413.5   427.0
 187          RY   104.5   100.0   100.0   100.0   100.0   100.0   100.0   104.5
              *

 188          KK      X1   BASIN
 189          KM    BASIN X1
 190          KM     THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 191          KM     L=      2.3  Lca=      1.4   S=  457.0  Kn= .050  LAG=  35.0
 192          KM     PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
```

```
 193          BA     .77
 194          LG     .28     .35    4.30     .43   12.00
 195          UI     74.    129.    301.    465.    569.    776.    674.    466.    404.    351.
 196          UI    300.    248.    196.    175.    151.    117.     95.     82.     70.     57.
 197          UI     50.     36.     36.     35.     14.     14.     14.     14.     14.     14.
 198          UI     14.     14.      0.      0.      0.      0.      0.      0.      0.      0.
              *

 199          KK    RRX1 STORAGE
 200          KM   PROPOSED DETENTION BASIN
 201          KM    ROUTE RUNOFF FROM X1 THROUGH PROPOSED DETENTION BASIN
 202          KM    outlet pipe of 2.5 ft diameter assumed
 203          KM    STRUCTURE ID:RRX1
 204          KM    DIMENSIONS: L=350ft, W=230ft, D=5ft, Sideslope (?H:1V)= 3,  Vol.= 5.8 ac-ft
 205          RS       1    STOR       0
 206          SV     0.0     0.7     1.3     2.8     4.3     5.8     7.5     9.2    11.0    12.9
 207          SE     0.0     0.5     1.0     2.0     3.0     4.0     5.0     6.0     7.0     8.0
 208          SQ     0.0   299.5   423.5   599.0   733.6   847.1   947.1  1037.5  1120.6  1198.0
              *

 209          KK  X1-X1I   ROUTE
 210          KM   PROPOSED CHANNEL
 211          KM    ROUTE OUTFLOW FROM RRX1 TO CONFLUENCE WITH PROPOSED NEW CHANNEL FROM RRW2A
 212          KM    STRUCTURE ID(s): X110
 213          KM    Slope=(1198.1 - 1184.0) /  861.7
 214          RS       1    FLOW      -1
 215          RC   0.045   0.045   0.045   861.7 0.01639   104.5
 216          RX     0.0    13.5    13.5    13.5   153.5   153.5   153.5   167.0
 217          RY   104.5   100.0   100.0   100.0   100.0   100.0   100.0   104.5
              *

 218          KK    CX1I COMBINE
 219          KM    COMBINE ROUTED FLOW FROM RRX1 AND RRW2A
 220          HC       2
              *
1                                          HEC-1 INPUT                                          PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 221          KK  X1I-1W   ROUTE
 222          KM   PROPOSED CHANNEL
 223          KM    ROUTE OUTFLOW FROM RRX1 TO FRS NO. 3 VIA PROPOSED NEW CHANNEL
 224          KM    STRUCTURE ID(s): W150
 225          KM    Slope=(1184.0 - 1152.1) / 1648.8
 226          RS       1    FLOW      -1
 227          RC   0.045   0.045   0.045  1648.80.019313   104.5
 228          RX     0.0    13.5    13.5    13.5   413.5   413.5   413.5   427.0
 229          RY   104.5   100.0   100.0   100.0   100.0   100.0   100.0   104.5
              *

 230          KK      W2   BASIN
 231          KM   BASIN W2
 232          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 233          KM    L=      2.3  Lca=      1.1   S=  422.0  Kn= .050  LAG=  33.0
 234          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 235          BA    2.69
 236          LG     .27     .35    4.19     .40    3.00
 237          UI    274.    522.   1229.   1805.   2237.   3080.   1992.   1608.   1388.   1185.
 238          UI    993.    777.    656.    588.    442.    351.    306.    255.    210.    170.
 239          UI    134.    134.     99.     53.     53.     53.     53.     53.     53.     53.
 240          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *

 241          KK      Y1   BASIN
 242          KM   BASIN Y1
 243          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 244          KM    L=      1.3  Lca=       .5   S=  789.0  Kn= .050  LAG=  17.0
 245          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 246          BA     .57
 247          LG     .38     .35    4.24     .42   12.00
 248          UI    160.    607.   1074.    802.    556.    393.    270.    184.    131.     88.
 249          UI     57.     43.     22.     22.     22.      0.      0.      0.      0.      0.
 250          ZZ
1
              SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

    50        S800
                V
                V
    59      800CHL
              .
              .
    68        .        S810
              .           V
              .           V
    77        .      810CHL
              .           .
              .           .
    86      ALL800............
              .
```

```
                .
  89            .          S1
                .           .
                .           .
 101            .           .          U1
                .           .           .
                .           .           .
 113            .           .           .          V1
                .           .           .           .
                .           .           .           .
 124            .           .           .           .          W1
                .           .           .           .           V
                .           .           .           .           V
 135            .           .           .           .         RRW1
                .           .           .           .           V
                .           .           .           .           V
 145            .           .           .           .        W1-1W
                .           .           .           .           .
                .           .           .           .           .
 154            .           .           .           .           .         W2A
                .           .           .           .           .           .
                .           .           .           .           .           .
 166            .           .           .           .         CW2A...........
                .           .           .           .           V
                .           .           .           .           V
 169            .           .           .           .        RRW2A
                .           .           .           .           V
                .           .           .           .           V
 179            .           .           .           .       W2AX1I
                .           .           .           .           .
                .           .           .           .           .
 188            .           .           .           .           .          X1
                .           .           .           .           .           V
                .           .           .           .           .           V
 199            .           .           .           .           .        RRX1
                .           .           .           .           .           V
                .           .           .           .           .           V
 209            .           .           .           .           .      X1-X1I
                .           .           .           .           .           .
                .           .           .           .           .           .
 218            .           .           .           .         CX1I...........
                .           .           .           .           V
                .           .           .           .           V
 221            .           .           .           .       X1I-1W
                .           .           .           .           .
                .           .           .           .           .
 230            .           .           .           .           .          W2
                .           .           .           .           .           .
                .           .           .           .           .           .
 241            .           .           .           .           .           .          Y1
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1****************************************                                    ****************************************
 *                                      *                                    *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                    *    U.S. ARMY CORPS OF ENGINEERS      *
 *               JUN   1998             *                                    *    HYDROLOGIC ENGINEERING CENTER     *
 *            VERSION 4.1               *                                    *          609 SECOND STREET           *
 *                                      *                                    *       DAVIS, CALIFORNIA 95616        *
 *  RUN DATE   19APR06  TIME  15:53:01  *                                    *           (916) 756-1104             *
 *                                      *                                    *                                      *
 ****************************************                                    ****************************************
```

HYDROLOGY FOR STEP 2 ALTERNATIVES FOR SUN VALLEY ADMP
- FRS NO. 2 & 3 SUBBAREA
- ALTERNATIVE B2

Alternative Description
The purpose of Alternative B is to capture the upstream flow at the apex using online detention basins. The presence of the detention basins eliminates the downstream alluvial fan uncertainties by controlling the flow from the apices to the outfall. Alternative B2 is based on using a relatively smaller on-line detention basin at the apex accompanied by larger leveed channel sections in the down fan direction.

JE FULLER/ HYDROLOGY & GEOMORPHOLOGY, INC.
JANUARY 2006

MODEL BASED ON S800 SERIES PORTIONS OF:

FCDMC
A4_EX24 - SVADMP - Area 4 Existing Conditions 100-yr 24-hr
Major Basin: 01
100 Year - Return Period
24 Hour Storm
Multiple Storms
Unit Hydrograph: S-Graph
10/04/2005

```
                    AND BASED ON PORTIONS OF:

                         WHITE TANK WASH FDS (ALPHA, 1996)


 36 IO          OUTPUT CONTROL VARIABLES
                      IPRNT          5  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE

    IT          HYDROGRAPH TIME DATA
                       NMIN          5  MINUTES IN COMPUTATION INTERVAL
                      IDATE     1JAN99  STARTING DATE
                      ITIME       1200  STARTING TIME
                         NQ       2000  NUMBER OF HYDROGRAPH ORDINATES
                     NDDATE     8JAN99  ENDING DATE
                     NDTIME       1035  ENDING TIME
                      ICENT         19  CENTURY MARK

                 COMPUTATION INTERVAL     .08 HOURS
                      TOTAL TIME BASE  166.58 HOURS

         ENGLISH UNITS
              DRAINAGE AREA          SQUARE MILES
              PRECIPITATION DEPTH    INCHES
              LENGTH, ELEVATION      FEET
              FLOW                   CUBIC FEET PER SECOND
              STORAGE VOLUME         ACRE-FEET
              SURFACE AREA           ACRES
              TEMPERATURE            DEGREES FAHRENHEIT

 37 JD          INDEX STORM NO. 1
                       STRM       4.20  PRECIPITATION DEPTH
                       TRDA        .10  TRANSPOSITION DRAINAGE AREA

 38 PI            PRECIPITATION PATTERN
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                     .00       .00       .00       .00       .00       .00       .00       .01       .00       .01
                     .01       .01       .01       .01       .01       .01       .01       .01       .03       .03
                     .03       .09       .09       .09       .01       .01       .01       .01       .01       .01
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                     .00       .00       .00       .00       .00       .00       .00       .00

 48 JD          INDEX STORM NO. 2
                       STRM       3.99  PRECIPITATION DEPTH
                       TRDA      10.00  TRANSPOSITION DRAINAGE AREA

  0 PI            PRECIPITATION PATTERN
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
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                     .01       .01       .01       .01       .01       .01       .01       .01       .03       .03
                     .03       .09       .09       .09       .01       .01       .01       .01       .01       .01
                     .01       .01       .01       .01       .01       .01       .00       .00       .00       .00
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                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00

 49 JD        INDEX STORM NO. 3
                STRM        3.78  PRECIPITATION DEPTH
                TRDA       30.00  TRANSPOSITION DRAINAGE AREA

  0 PI          PRECIPITATION PATTERN
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
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                .03       .09       .09       .09       .01       .01       .01       .01       .01       .01
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                .00       .00       .00       .00       .00       .00       .00       .00
1
                                                RUNOFF SUMMARY
                                        FLOW IN CUBIC FEET PER SECOND
                                      TIME IN HOURS,  AREA IN SQUARE MILES

                                    PEAK   TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM     TIME OF
        OPERATION        STATION    FLOW    PEAK                                           AREA      STAGE     MAX STAGE
+                                                        6-HOUR     24-HOUR     72-HOUR

        HYDROGRAPH AT
+                          S800      474.   12.25         61.         16.          5.       .43

        ROUTED TO
+                        800CHL      471.   12.33         61.         16.          5.       .43

        HYDROGRAPH AT
+                          S810     1387.   12.33        209.         54.         18.      1.61

        ROUTED TO
+                        810CHL     1366.   12.50        209.         54.         18.      1.61

        2 COMBINED AT
+                        ALL800     1758.   12.42        268.         70.         23.      2.04

        HYDROGRAPH AT
+                           S1      1520.   12.33        213.         56.         19.      1.46

        HYDROGRAPH AT
+                           U1      1540.   12.25        214.         57.         19.      1.39

        HYDROGRAPH AT
+                           V1       599.   12.42         99.         28.          9.       .70

        HYDROGRAPH AT
+                           W1      3228.   12.42        562.        159.         53.      3.95

        ROUTED TO
+                         RRW1      2816.   12.58        562.        159.         53.      3.95

        ROUTED TO
+                        W1-1W      2604.   12.83        560.        159.         53.      3.95

        HYDROGRAPH AT
+                          W2A       714.   12.33        106.         29.         10.       .77

        2 COMBINED AT
+                         CW2A      2883.   12.75        660.        187.         62.      4.72

        ROUTED TO
+                        RRW2A      2579.   13.00        660.        187.         62.      4.72

        ROUTED TO
+                       W2AX1I      2555.   13.08        660.        187.         62.      4.72

        HYDROGRAPH AT
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+                          X1      714.  12.33       106.       29.       10.       .77

        ROUTED TO
+                        RRX1      656.  12.42       106.       29.       10.       .77

        ROUTED TO
+                      X1-X1I      647.  12.50       106.       29.       10.       .77

        2 COMBINED AT
+                        CX1I     2760.  13.00       759.      215.       72.      5.49

        ROUTED TO
+                      X1I-1W     2752.  13.08       759.      215.       72.      5.49

        HYDROGRAPH AT
+                          W2     2472.  12.33       325.       84.       28.      2.69

        HYDROGRAPH AT
+                          Y1      848.  12.08        79.       22.        7.       .57

 *** NORMAL END OF HEC-1 ***
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1*****************************************                    *****************************************
 *                                       *                    *                                       *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *                    *    U.S. ARMY CORPS OF ENGINEERS       *
 *              JUN   1998               *                    *    HYDROLOGIC ENGINEERING CENTER      *
 *            VERSION 4.1                *                    *          609 SECOND STREET            *
 *                                       *                    *       DAVIS, CALIFORNIA 95616         *
 *  RUN DATE   19APR06  TIME  15:57:52   *                    *           (916) 756-1104              *
 *                                       *                    *                                       *
 *****************************************                    *****************************************

                                        X     X  XXXXXXX   XXXXX           X
                                        X     X  X        X     X         XX
                                        X     X  X        X                X
                                        XXXXXXX  XXXX     X        XXXXX   X
                                        X     X  X        X                X
                                        X     X  X        X     X          X
                                        X     X  XXXXXXX   XXXXX         XXX


          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                   HEC-1 INPUT                                                PAGE  1

        LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

          1           ID    HYDROLOGY FOR STEP 2 ALTERNATIVES FOR SUN VALLEY ADMP
          2           ID       - FRS NO. 2 & 3 SUBBAREA
          3           ID       - ALTERNATIVE B3
          4           ID
          5           ID   Alternative Description
          6           ID   The purpose of Alternative B is to capture the upstream flow at the
          7           ID   apex using online detention basins.  The presence of the detention
          8           ID   basins eliminates the downstream alluvial fan uncertainties by
          9           ID   controlling the flow from the apices to the outfall.  Alternative B3
         10           ID   is based on using a relatively larger on-line detention basin at the
         11           ID   apex accompanied by smaller excavated channel sections in the down fan
         12           ID   direction.  The excavated earthen channels are complemented with a
         13           ID   120-foot wide adjacent riparian preservation corridor.
         14           ID
         15           ID
         16           ID    JE FULLER/ HYDROLOGY & GEOMORPHOLOGY, INC.
         17           ID    JANUARY 2006
         18           ID
         19           ID    MODEL BASED ON S800 SERIES PORTIONS OF:
         20           ID
         21           ID        A4_EX6 - SVADMP - Area 4 Existing Conditions 100-yr 6-hr
         22           ID        Major Basin: 01
         23           ID        100 Year - Return Period
         24           ID        6 Hour Storm
         25           ID        Multiple Storms
         26           ID        Unit Hydrograph: S-Graph
         27           ID        10/04/2005
         28           ID
         29           ID
         30           ID    AND BASED ON PORTIONS OF:
         31           ID
         32           ID         WHITE TANK WASH FDS (ALPHA, 1996)
         33           ID
         34           IT       5  1JAN99    1200    2000
         35           IN      15
         36           IO       5
                     *DIAGRAM
                     *
         37           JD   3.196  0.1000
         38           PC   0.000   0.008   0.016   0.025   0.033   0.041   0.050   0.058   0.066   0.074
         39           PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931   0.950
         40           PC   0.962   0.972   0.983   0.991   1.000
         41           JD   3.181  0.5000
         42           PC   0.000   0.008   0.016   0.025   0.033   0.041   0.050   0.058   0.066   0.074
         43           PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931   0.950
         44           PC   0.962   0.972   0.983   0.991   1.000
         45           JD   3.120     2.8
         46           PC   0.000   0.009   0.016   0.025   0.034   0.042   0.051   0.059   0.068   0.077
         47           PC   0.088   0.101   0.121   0.164   0.253   0.451   0.694   0.836   0.900   0.938
         48           PC   0.950   0.963   0.975   0.988   1.000
         49           JD   2.950    16.0
         50           PC   0.000   0.015   0.020   0.030   0.048   0.063   0.076   0.090   0.105   0.119
         51           PC   0.135   0.152   0.175   0.222   0.304   0.472   0.670   0.796   0.868   0.912
         52           PC   0.946   0.960   0.973   0.987   1.000
         53           JD   2.592    90.0
1                                                   HEC-1 INPUT                                                PAGE  2
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  54          PC   0.000   0.021   0.035   0.051   0.071   0.087   0.105   0.125   0.143   0.160
  55          PC   0.179   0.201   0.232   0.281   0.364   0.500   0.658   0.773   0.841   0.888
  56          PC   0.927   0.945   0.964   0.982   1.000
              *

  57          KK    S800   BASIN
  58          KM        Compute runoff from subbasin 800
  59          BA   0.431
  60          LG    0.27    0.35    4.60    0.34       9
  61          UI      49     118     252     353     489     442     297     255     213     170
  62          UI     134     113      92      69      57      48      38      29      24      25
  63          UI      12       9      10       9      10       9      10       0       0       0
  64          UI       0       0       0       0       0       0       0       0       0       0
  65          UI       0       0       0       0       0       0       0       0       0       0
              *

  66          KK   RR800 STORAGE
  67          KM   PROPOSED DETENTION BASIN
  68          KM    ROUTE RUNOFF FROM S800 THROUGH PROPOSED DETENTION BASIN
  69          KM    STRUCTURE ID:RR800
  70          KM    DIMENSIONS: L=750ft, W=300ft, D=8ft, Sideslope (?H:1V)= 3,  Vol.= 29.7 ac-ft
  71          RS       1    STOR       0
  72          SV     0.0     1.9     3.8     7.8    11.9    16.1    20.5    25.0    29.7    34.4
  73          SE     0.0     0.5     1.0     2.0     3.0     4.0     5.0     6.0     7.0     8.0
  74          SQ     0.0    16.7    23.6    33.4    40.9    47.3    52.9    57.9    62.5    66.9
              *

  75          KK  800CHL   ROUTE
  76          KM   PROPOSED CHANNEL
  77          KM    ROUTE RR800 OUTFLOW TO FRS
  78          KM    STRUCTURE ID(s): 80010
  79          KM    Slope=(1129.3 - 1105.8) / 1366.3
  80          RS       3    FLOW      -1
  81          RC   0.045   0.045   0.045  1366.30.017151   103.0
  82          RX     0.0     9.0     9.0     9.0    15.0    15.0    15.0    24.0
  83          RY   103.0   100.0   100.0   100.0   100.0   100.0   100.0   103.0
              *

  84          KK    S810   BASIN
  85          KM        Compute runoff from subbasin 810
  86          BA   1.607
  87          LG    0.30    0.35    4.65    0.32       4
  88          UI     140     200     493     790     997    1196    1589    1066     843     750
  89          UI     668     569     489     397     336     309     256     202     176     155
  90          UI     130     106     102      68      68      69      46      27      27      27
  91          UI      26      27      27      27      27       0       0       0       0       0
  92          UI       0       0       0       0       0       0       0       0       0       0
              *

  93          KK   RR810 STORAGE
  94          KM   PROPOSED DETENTION BASIN
  95          KM    ROUTE RUNOFF FROM S810 THROUGH PROPOSED DETENTION BASIN
  96          KM    STRUCTURE ID:RR810
  97          KM    DIMENSIONS: L=1050ft, W=500ft, D=10ft, Sideslope (?H:1V)= 3,  Vol.= 93.6 ac-
  98          RS       1    STOR       0
1                                          HEC-1 INPUT                                          PAGE  3

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  99          SV     0.0    19.4    39.6    60.6    71.3    82.3    93.6   105.0   116.6   128.4
 100          SE     0.0     2.0     4.0     6.0     7.0     8.0     9.0    10.0    11.0    12.0
 101          SQ     0.0    65.5    92.7   113.5   122.6   131.0   139.0   146.5   153.6   160.5
              *

 102          KK  810CHL   ROUTE
 103          KM   PROPOSED CHANNEL
 104          KM    ROUTE RR810 OUTFLOW TO FRS
 105          KM    STRUCTURE ID(s): 81010
 106          KM    Slope=(1133.1 - 1105.8) / 2054.8
 107          RS       3    FLOW      -1
 108          RC   0.045   0.045   0.045  2054.80.013242   103.0
 109          RX     0.0     9.0     9.0     9.0    19.0    19.0    19.0    28.0
 110          RY   103.0   100.0   100.0   100.0   100.0   100.0   100.0   103.0
              *

 111          KK  ALL800 COMBINE
 112          KM        combination of all 800 series hydrographs AT FRS NO 2.
 113          HC       2
              *
              * THE FOLLOWING PORTIONS ARE FROM THE WHITE TANK WASH FDS (ALPHA, 1996)
              *
              * White Tanks Wash Flood Insurance Study - 7-July-93 - JRB
              * ALPHA Engineering Group Inc. - 5 minute interval - 24 Hour Storm
              *

 114          KK      S1   BASIN
 115          KM   BASIN S1
 116          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 117          KM    L=      2.4  Lca=       .7   S=  140.0  Kn= .050  LAG=  33.0
 118          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 119          BA    1.46
 120          LG     .19     .35    3.77     .31    7.00
 121          UI    149.    284.    668.    981.   1216.   1674.   1082.    874.    754.    644.
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 122          UI    540.    422.    356.    320.    240.    191.    166.    138.    114.     92.
 123          UI     73.     73.     54.     29.     29.     29.     29.     29.     29.     29.
 124          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
 125          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *

 126          KK      U1   BASIN
 127          KM    BASIN U1
 128          KM     THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 129          KM     L=      2.1  Lca=      1.1   S=  377.0  Kn= .050  LAG=  32.0
 130          KM     PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 131          BA     1.39
 132          LG      .26     .37    4.74     .22    8.00
 133          UI     147.    294.    688.    987.   1245.   1598.   1002.    831.    714.    602.
 134          UI     493.    381.    338.    278.    212.    177.    159.    112.    107.     72.
 135          UI      72.     67.     28.     28.     28.     28.     28.     28.     28.      0.
 136          UI       0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
 137          UI       0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *
1                                          HEC-1 INPUT                                          PAGE  4

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 138          KK      V1   BASIN
 139          KM    BASIN V1
 140          KM     THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 141          KM     L=      2.7  Lca=      1.6   S=  389.0  Kn= .050  LAG=  40.0
 142          KM     PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 143          BA      .70
 144          LG      .26     .35    4.24     .41   13.00
 145          UI      59.     76.    200.    320.    406.    481.    660.    503.    372.    329.
 146          UI     290.    254.    221.    183.    150.    138.    123.     97.     77.     70.
 147          UI      64.     49.     45.     39.     29.     29.     29.     18.     11.     11.
 148          UI      11.     11.     11.     11.     11.     11.      0.      0.      0.      0.
              *

 149          KK      W1   BASIN
 150          KM    BASIN W1
 151          KM     THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 152          KM     L=      3.3  Lca=      1.6   S=  522.0  Kn= .050  LAG=  42.0
 153          KM     PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 154          BA     3.95
 155          LG      .30     .35    4.24     .40   15.00
 156          UI     317.    357.   1030.   1615.   2095.   2456.   3182.   3308.   2176.   1862.
 157          UI    1658.   1480.   1292.   1120.    914.    790.    722.    635.    518.    405.
 158          UI     375.    347.    270.    243.    223.    155.    155.    155.    129.     61.
 159          UI      61.     61.     61.     61.     61.     61.     61.     61.      0.      0.
              *

 160          KK     RRW1 STORAGE
 161          KM    PROPOSED DETENTION BASIN
 162          KM     ROUTE RUNOFF FROM SUBBASIN W1 THROUGH PROPOSED DETENTION BASIN
 163          KM     outlet pipe of 5 ft diameter assumed
 164          KM     STRUCTURE ID:RRW1
 165          KM     DIMENSIONS: L=1600ft, W=800ft, D=10ft, Sideslope (?H:1V)= 3,  Vol.= 231.2 ac
 166          RS        1    STOR       0
 167          SV      0.0    49.2    74.3    99.6   151.3   204.3   231.2   258.5   286.1   314.0
 168          SE      0.0     2.0     3.0     4.0     6.0     8.0     9.0    10.0    11.0    12.0
 169          SQ      0.0   161.8   198.1   228.8   280.2   323.6   343.2   361.8   379.4   396.3
              *

 170          KK    W1-1W   ROUTE
 171          KM    PROPOSED CHANNEL
 172          KM     ROUTE OUTFLOW FROM RRW1 VIA EAST CHANNEL ALIGNMENT THRU W2 TO INSET FAN APEX
 173          KM     STRUCTURE ID(s): W130, W135
 174          KM     Slope=(1361.3 - 1221.6) / 7444.4
 175          RS        3    FLOW      -1
 176          RC    0.045   0.045   0.045  7444.40.018766   102.0
 177          RX      0.0     6.0    46.0    52.0    77.0    83.0   123.0   129.0
 178          RY    102.0   100.0   100.0    98.0    98.0   100.0   100.0   102.0
              *
1                                          HEC-1 INPUT                                          PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 179          KK     W2A   BASIN
 180          KM    ASSUMED SAME AS BASIN X1 - USED TO REPRESENT HILLSLOPE WATERSHED CONTRIBUTING
 181          KM    TO EAST SIDE OF SKYLINE FAN
 182          KM     THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 183          KM     L=      2.3  Lca=      1.4   S=  457.0  Kn= .050  LAG=  35.0
 184          KM     PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 185          BA      .77
 186          LG      .28     .35    4.30     .43   12.00
 187          UI      74.    129.    301.    465.    569.    776.    674.    466.    404.    351.
 188          UI     300.    248.    196.    175.    151.    117.     95.     82.     70.     57.
 189          UI      50.     36.     36.     35.     14.     14.     14.     14.     14.     14.
 190          UI      14.     14.      0.      0.      0.      0.      0.      0.      0.      0.
              *

 191          KK     CW2A COMBINE
 192          KM     COMBINE RUNOFF FROM HILLSLOPE WATERSHED WITH ROUTED FLOW FROM SKYLINE FAN AP
 193          HC        2
              *
```

```
KK   RRW2A STORAGE
KM   PROPOSED DETENTION BASIN
KM    ROUTE COMBINED FLOW THROUGH PROPOSED DETENTION BASIN AT INSET FAN ON EAST SI
KM    outlet pipe of 5 ft diameter assumed
KM    STRUCTURE ID:RRW2A
KM    DIMENSIONS: L=800ft, W=400ft, D=8ft, Sideslope (?H:1V)= 3,  Vol.= 43.4 ac-ft
RS       1    STOR       0
SV     0.0    11.6    23.9    36.7    50.2    57.2    64.3    71.7    79.1    86.8
SE     0.0     2.0     4.0     6.0     8.0     9.0    10.0    11.0    12.0    13.0
SQ     0.0   192.5   272.3   333.5   385.1   408.4   430.5   451.5   471.6   490.9
*

KK  W2AX1I   ROUTE
KM   PROPOSED CHANNEL
KM    ROUTE OUTFLOW FROM RRW2A TO CONFLUENCE WITH OUTFLOW FROM RRX1 IN PROPOSED CH
KM    STRUCTURE ID(s): W140
KM    Slope=(1221.6 - 1184.0) / 2235.9
RS       1    FLOW      -1
RC   0.045   0.045   0.045  2235.90.016851   103.0
RX     0.0     9.0     9.0     9.0    19.0    19.0    19.0    28.0
RY   103.0   100.0   100.0   100.0   100.0   100.0   100.0   103.0
*

KK      X1   BASIN
KM   BASIN X1
KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
KM    L=      2.3  Lca=      1.4   S=  457.0  Kn= .050  LAG=  35.0
KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
BA     .77
LG     .28     .35    4.30     .43   12.00
UI     74.    129.    301.    465.    569.    776.    674.    466.    404.    351.
UI    300.    248.    196.    175.    151.    117.     95.     82.     70.     57.
UI     50.     36.     36.     35.     14.     14.     14.     14.     14.     14.
UI     14.     14.      0.      0.      0.      0.      0.      0.      0.      0.
*
```



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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

KK    RRX1 STORAGE
KM   PROPOSED DETENTION BASIN
KM    ROUTE RUNOFF FROM X1 THROUGH PROPOSED DETENTION BASIN
KM    outlet pipe of 2.5 ft diameter assumed
KM    STRUCTURE ID:RRX1
KM    DIMENSIONS: L=800ft, W=400ft, D=9ft, Sideslope (?H:1V)= 3,  Vol.= 47.3 ac-ft
RS       1    STOR       0
SV     0.0     2.7     5.4    16.6    28.4    34.5    40.8    47.3    53.9    60.6
SE     0.0     0.5     1.0     3.0     5.0     6.0     7.0     8.0     9.0    10.0
SQ     0.0    24.1    34.0    59.0    76.1    83.4    90.0    96.3   102.1   107.6
*

KK  X1-X1I   ROUTE
KM   PROPOSED CHANNEL
KM    ROUTE OUTFLOW FROM RRX1 TO CONFLUENCE WITH PROPOSED NEW CHANNEL FROM RRW2A
KM    STRUCTURE ID(s): X110
KM    Slope=(1198.1 - 1184.0) /  861.7
RS       1    FLOW      -1
RC   0.045   0.045   0.045   861.7 0.01639   102.0
RX     0.0     6.0    11.0    14.0    24.0    27.0    32.0    38.0
RY   102.0   100.0   100.0    99.0    99.0   100.0   100.0   102.0
*

KK    CX1I COMBINE
KM    COMBINE ROUTED FLOW FROM RRX1 AND RRW2A
HC       2
*

KK  X1I-1W   ROUTE
KM   PROPOSED CHANNEL
KM    ROUTE OUTFLOW FROM RRX1 TO FRS NO. 3 VIA PROPOSED NEW CHANNEL
KM    STRUCTURE ID(s): W150
KM    Slope=(1184.0 - 1152.1) / 1648.8
RS       1    FLOW      -1
RC   0.045   0.045   0.045  1648.80.019313   102.0
RX     0.0     6.0    16.0    23.5    33.5    41.0    51.0    57.0
RY   102.0   100.0   100.0    97.5    97.5   100.0   100.0   102.0
*

KK      W2   BASIN
KM   BASIN W2
KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
KM    L=      2.3  Lca=      1.1   S=  422.0  Kn= .050  LAG=  33.0
KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
BA    2.69
LG     .27     .35    4.19     .40    3.00
UI    274.    522.   1229.   1805.   2237.   3080.   1992.   1608.   1388.   1185.
UI    993.    777.    656.    588.    442.    351.    306.    255.    210.    170.
UI    134.    134.     99.     53.     53.     53.     53.     53.     53.     53.
UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
*
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
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266          KK      Y1   BASIN
267          KM   BASIN Y1
268          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
269          KM    L=      1.3  Lca=       .5   S=  789.0  Kn= .050  LAG=  17.0
270          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
271          BA     .57
272          LG     .38     .35    4.24     .42   12.00
273          UI    160.    607.   1074.    802.    556.    393.    270.    184.    131.     88.
274          UI     57.     43.     22.     22.     22.      0.      0.      0.      0.      0.
275          ZZ
1
                SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

    57        S800
                V
                V
    66       RR800
                V
                V
    75      800CHL
                .
                .
    84          .        S810
                .           V
                .           V
    93          .       RR810
                .           V
                .           V
   102          .      810CHL
                .           .
                .           .
   111      ALL800............
                .
                .
   114          .          S1
                .           .
                .           .
   126          .           .          U1
                .           .           .
                .           .           .
   138          .           .           .          V1
                .           .           .           .
                .           .           .           .
   149          .           .           .           .          W1
                .           .           .           .           V
                .           .           .           .           V
   160          .           .           .           .        RRW1
                .           .           .           .           V
                .           .           .           .           V
   170          .           .           .           .       W1-1W
                .           .           .           .           .
                .           .           .           .           .
   179          .           .           .           .           .         W2A
                .           .           .           .           .           .
                .           .           .           .           .           .
   191          .           .           .           .        CW2A............
                .           .           .           .           V
                .           .           .           .           V
   194          .           .           .           .       RRW2A
                .           .           .           .           V
                .           .           .           .           V
   204          .           .           .           .      W2AX1I
                .           .           .           .           .
                .           .           .           .           .
   213          .           .           .           .           .          X1
                .           .           .           .           .           V
                .           .           .           .           .           V
   224          .           .           .           .           .        RRX1
                .           .           .           .           .           V
                .           .           .           .           .           V
   234          .           .           .           .           .      X1-X1I
                .           .           .           .           .           .
                .           .           .           .           .           .
   243          .           .           .           .        CX1I............
                .           .           .           .           V
                .           .           .           .           V
   246          .           .           .           .      X1I-1W
                .           .           .           .           .
                .           .           .           .           .
   255          .           .           .           .           .          W2
                .           .           .           .           .           .
                .           .           .           .           .           .
   266          .           .           .           .           .           .          Y1

 (***) RUNOFF ALSO COMPUTED AT THIS LOCATION
1****************************************                                    ****************************************
 *                                      *                                    *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                    *   U.S. ARMY CORPS OF ENGINEERS       *
 *              JUN   1998              *                                    *   HYDROLOGIC ENGINEERING CENTER      *
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*            VERSION 4.1                *                    *          609 SECOND STREET          *
*                                       *                    *       DAVIS, CALIFORNIA 95616       *
*  RUN DATE   19APR06  TIME  15:57:52   *                    *          (916) 756-1104             *
*                                       *                    *                                     *
*****************************************                    *****************************************
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HYDROLOGY FOR STEP 2 ALTERNATIVES FOR SUN VALLEY ADMP
   - FRS NO. 2 & 3 SUBBAREA
   - ALTERNATIVE B3

Alternative Description
The purpose of Alternative B is to capture the upstream flow at the
apex using online detention basins.  The presence of the detention
basins eliminates the downstream alluvial fan uncertainties by
controlling the flow from the apices to the outfall.  Alternative B3
is based on using a relatively larger on-line detention basin at the
apex accompanied by smaller excavated channel sections in the down fan
direction.  The excavated earthen channels are complemented with a
120-foot wide adjacent riparian preservation corridor.


JE FULLER/ HYDROLOGY & GEOMORPHOLOGY, INC.
JANUARY 2006

MODEL BASED ON S800 SERIES PORTIONS OF:

    A4_EX6 - SVADMP - Area 4 Existing Conditions 100-yr 6-hr
    Major Basin: 01
    100 Year - Return Period
    6 Hour Storm
    Multiple Storms
    Unit Hydrograph: S-Graph
    10/04/2005


AND BASED ON PORTIONS OF:

     WHITE TANK WASH FDS (ALPHA, 1996)

36 IO          OUTPUT CONTROL VARIABLES
                     IPRNT           5  PRINT CONTROL
                     IPLOT           0  PLOT CONTROL
                     QSCAL          0.  HYDROGRAPH PLOT SCALE

   IT          HYDROGRAPH TIME DATA
                      NMIN           5  MINUTES IN COMPUTATION INTERVAL
                     IDATE      1JAN99  STARTING DATE
                     ITIME        1200  STARTING TIME
                        NQ        2000  NUMBER OF HYDROGRAPH ORDINATES
                    NDDATE      8JAN99  ENDING DATE
                    NDTIME        1035  ENDING TIME
                     ICENT          19  CENTURY MARK

              COMPUTATION INTERVAL     .08 HOURS
                   TOTAL TIME BASE  166.58 HOURS

        ENGLISH UNITS
             DRAINAGE AREA          SQUARE MILES
             PRECIPITATION DEPTH    INCHES
             LENGTH, ELEVATION      FEET
             FLOW                   CUBIC FEET PER SECOND
             STORAGE VOLUME         ACRE-FEET
             SURFACE AREA           ACRES
             TEMPERATURE            DEGREES FAHRENHEIT

37 JD          INDEX STORM NO. 1
                      STRM        3.20  PRECIPITATION DEPTH
                      TRDA         .10  TRANSPOSITION DRAINAGE AREA

38 PI            PRECIPITATION PATTERN
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00       .00       .01       .01       .01       .01       .01       .01       .03
                    .03       .03       .05       .05       .05       .15       .15       .15       .03       .03
                    .03       .01       .01       .01       .01       .01       .01       .00       .00       .00
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00

41 JD          INDEX STORM NO. 2
                      STRM        3.18  PRECIPITATION DEPTH
                      TRDA         .50  TRANSPOSITION DRAINAGE AREA

42 PI            PRECIPITATION PATTERN
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00       .00       .01       .01       .01       .01       .01       .01       .03
                    .03       .03       .05       .05       .05       .15       .15       .15       .03       .03
                    .03       .01       .01       .01       .01       .01       .01       .00       .00       .00
```

```
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00

45 JD          INDEX STORM NO. 3
                    STRM        3.12  PRECIPITATION DEPTH
                    TRDA        2.80  TRANSPOSITION DRAINAGE AREA

46 PI            PRECIPITATION PATTERN
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00       .00       .01       .01       .01       .01       .01       .01       .03
                    .03       .03       .07       .07       .07       .08       .08       .08       .05       .05
                    .05       .02       .02       .02       .01       .01       .01       .00       .00       .00
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00

49 JD          INDEX STORM NO. 4
                    STRM        2.95  PRECIPITATION DEPTH
                    TRDA       16.00  TRANSPOSITION DRAINAGE AREA

50 PI            PRECIPITATION PATTERN
                    .01       .01       .00       .00       .00       .00       .00       .00       .00       .01
                    .01       .01       .00       .01       .00       .00       .00       .00       .00       .00
                    .00       .00       .01       .00       .00       .00       .00       .01       .01       .01
                    .01       .01       .01       .01       .01       .01       .02       .02       .02       .03
                    .03       .03       .06       .06       .06       .07       .07       .07       .04       .04
                    .04       .02       .02       .02       .01       .01       .01       .01       .01       .01
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00

53 JD          INDEX STORM NO. 5
                    STRM        2.59  PRECIPITATION DEPTH
                    TRDA       90.00  TRANSPOSITION DRAINAGE AREA

54 PI            PRECIPITATION PATTERN
                    .01       .01       .01       .00       .00       .00       .01       .01       .01       .01
                    .01       .01       .01       .01       .01       .01       .01       .01       .01       .01
                    .01       .01       .01       .01       .01       .01       .01       .01       .01       .01
                    .01       .01       .01       .01       .01       .01       .02       .02       .02       .03
                    .03       .03       .05       .05       .05       .05       .05       .05       .04       .04
                    .04       .02       .02       .02       .02       .02       .01       .01       .01       .01
                    .01       .01       .01       .01       .01       .01       .01       .01       .01       .01
                    .01       .01
1
                                                RUNOFF SUMMARY
                                        FLOW IN CUBIC FEET PER SECOND
                                      TIME IN HOURS,  AREA IN SQUARE MILES

                                          PEAK   TIME OF    AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN    MAXIMUM    TIME OF
          OPERATION        STATION       FLOW    PEAK                                           AREA     STAGE    MAX STAGE
+                                                          6-HOUR     24-HOUR     72-HOUR

          HYDROGRAPH AT
+                           S800        595.    4.25        74.         18.          6.        .43

          ROUTED TO
+                          RR800         61.    5.25        51.         18.          6.        .43

          ROUTED TO
+                         800CHL         61.    5.33        51.         18.          6.        .43

          HYDROGRAPH AT
+                           S810       1355.    4.42       225.         56.         19.       1.61

          ROUTED TO
+                          RR810        136.    5.75       122.         56.         19.       1.61

          ROUTED TO
+                         810CHL        136.    5.83       122.         56.         19.       1.61

          2 COMBINED AT
+                         ALL800        189.    5.67       165.         70.         23.       2.04

          HYDROGRAPH AT
+                             S1       1537.    4.33       238.         60.         20.       1.46

          HYDROGRAPH AT
+                             U1       1553.    4.33       239.         60.         20.       1.39

          HYDROGRAPH AT
+                             V1        707.    4.42       114.         29.         10.        .70

          HYDROGRAPH AT
+                             W1       2581.    4.42       533.        134.         45.       3.95

          ROUTED TO
+                           RRW1        323.    5.92       290.        133.         45.       3.95

          ROUTED TO
+                          W1-1W        323.    6.17       289.        133.         45.       3.95

          HYDROGRAPH AT
+                            W2A        818.    4.33       120.         30.         10.        .77
```

	2 COMBINED AT						
+	CW2A	624.	4.42	350.	153.	52.	4.72
	ROUTED TO						
+	RRW2A	330.	6.50	313.	153.	52.	4.72
	ROUTED TO						
+	W2AX1I	330.	6.58	313.	153.	52.	4.72
	HYDROGRAPH AT						
+	X1	818.	4.33	120.	30.	10.	.77
	ROUTED TO						
+	RRX1	94.	5.50	80.	30.	10.	.77
	ROUTED TO						
+	X1-X1I	94.	5.50	80.	30.	10.	.77
	2 COMBINED AT						
+	CX1I	403.	6.17	374.	172.	58.	5.49
	ROUTED TO						
+	X1I-1W	403.	6.25	373.	172.	58.	5.49
	HYDROGRAPH AT						
+	W2	1993.	4.33	317.	79.	26.	2.69
	HYDROGRAPH AT						
+	Y1	1029.	4.08	91.	23.	8.	.57

*** NORMAL END OF HEC-1 ***

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1****************************************                                    ****************************************
 *                                      *                                    *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                    *   U.S. ARMY CORPS OF ENGINEERS       *
 *              JUN   1998              *                                    *   HYDROLOGIC ENGINEERING CENTER      *
 *           VERSION 4.1                *                                    *         609 SECOND STREET            *
 *                                      *                                    *      DAVIS, CALIFORNIA 95616         *
 *  RUN DATE   19APR06  TIME  15:57:52  *                                    *          (916) 756-1104              *
 *                                      *                                    *                                      *
 ****************************************                                    ****************************************

                                        X     X  XXXXXXX   XXXXX           X
                                        X     X  X        X     X         XX
                                        X     X  X        X                X
                                        XXXXXXX  XXXX     X        XXXXX   X
                                        X     X  X        X                X
                                        X     X  X        X     X          X
                                        X     X  XXXXXXX   XXXXX         XXX


THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                HEC-1 INPUT                                                    PAGE  1

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

            1           ID    HYDROLOGY FOR STEP 2 ALTERNATIVES FOR SUN VALLEY ADMP
            2           ID       - FRS NO. 2 & 3 SUBBAREA
            3           ID       - ALTERNATIVE B3
            4           ID
            5           ID   Alternative Description
            6           ID   The purpose of Alternative B is to capture the upstream flow at the
            7           ID   apex using online detention basins.  The presence of the detention
            8           ID   basins eliminates the downstream alluvial fan uncertainties by
            9           ID   controlling the flow from the apices to the outfall.  Alternative B3
           10           ID   is based on using a relatively larger on-line detention basin at the
           11           ID   apex accompanied by smaller excavated channel sections in the down fan
           12           ID   direction.  The excavated earthen channels are complemented with a
           13           ID   120-foot wide adjacent riparian preservation corridor.
           14           ID
           15           ID
           16           ID    JE FULLER/ HYDROLOGY & GEOMORPHOLOGY, INC.
           17           ID    JANUARY 2006
           18           ID
           19           ID    MODEL BASED ON S800 SERIES PORTIONS OF:
           20           ID
           21           ID        FCDMC
           22           ID        A4_EX24 - SVADMP - Area 4 Existing Conditions 100-yr 24-hr
           23           ID        Major Basin: 01
           24           ID        100 Year - Return Period
           25           ID        24 Hour Storm
           26           ID        Multiple Storms
           27           ID        Unit Hydrograph: S-Graph
           28           ID        10/04/2005
           29           ID
           30           ID
           31           ID    AND BASED ON PORTIONS OF:
           32           ID
           33           ID         WHITE TANK WASH FDS (ALPHA, 1996)
           34           ID
           35           IT       5  1JAN99    1200    2000
           36           IN      15
           37           IO       5
                        *DIAGRAM
                        *
           38           JD   4.198  0.1000
           39           PC   0.000   0.002   0.005   0.008   0.011   0.014   0.017   0.020   0.023   0.026
           40           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056   0.060
           41           PC   0.064   0.068   0.072   0.076   0.080   0.085   0.090   0.095   0.100   0.105
           42           PC   0.110   0.115   0.120   0.126   0.133   0.140   0.147   0.155   0.163   0.172
           43           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
           44           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
           45           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
           46           PC   0.913   0.918   0.922   0.926   0.930   0.934   0.938   0.942   0.946   0.950
           47           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977   0.980
           48           PC   0.983   0.986   0.989   0.992   0.995   0.998   1.000
           49           JD   3.990    10.0
           50           JD   3.780    30.0
                        *
1                                                HEC-1 INPUT                                                    PAGE  2

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
 51          KK    S800   BASIN
 52          KM        Compute runoff from subbasin 800
 53          BA   0.431
 54          LG    0.27    0.35    4.60    0.34       9
 55          UI      49     118     252     353     489     442     297     255     213     170
 56          UI     134     113      92      69      57      48      38      29      24      25
 57          UI      12       9      10       9      10       9      10       0       0       0
 58          UI       0       0       0       0       0       0       0       0       0       0
 59          UI       0       0       0       0       0       0       0       0       0       0
             *

 60          KK   RR800 STORAGE
 61          KM   PROPOSED DETENTION BASIN
 62          KM    ROUTE RUNOFF FROM S800 THROUGH PROPOSED DETENTION BASIN
 63          KM    STRUCTURE ID:RR800
 64          KM    DIMENSIONS: L=750ft, W=300ft, D=8ft, Sideslope (?H:1V)= 3,  Vol.= 29.7 ac-ft
 65          RS       1    STOR       0
 66          SV     0.0     1.9     3.8     7.8    11.9    16.1    20.5    25.0    29.7    34.4
 67          SE     0.0     0.5     1.0     2.0     3.0     4.0     5.0     6.0     7.0     8.0
 68          SQ     0.0    16.7    23.6    33.4    40.9    47.3    52.9    57.9    62.5    66.9
             *

 69          KK  800CHL   ROUTE
 70          KM   PROPOSED CHANNEL
 71          KM    ROUTE RR800 OUTFLOW TO FRS
 72          KM    STRUCTURE ID(s): 80010
 73          KM    Slope=(1129.3 - 1105.8) / 1366.3
 74          RS       3    FLOW      -1
 75          RC   0.045   0.045   0.045  1366.30.017151   103.0
 76          RX     0.0     9.0     9.0     9.0    15.0    15.0    15.0    24.0
 77          RY   103.0   100.0   100.0   100.0   100.0   100.0   100.0   103.0
             *

 78          KK    S810   BASIN
 79          KM        Compute runoff from subbasin 810
 80          BA   1.607
 81          LG    0.30    0.35    4.65    0.32       4
 82          UI     140     200     493     790     997    1196    1589    1066     843     750
 83          UI     668     569     489     397     336     309     256     202     176     155
 84          UI     130     106     102      68      68      69      46      27      27      27
 85          UI      26      27      27      27      27       0       0       0       0       0
 86          UI       0       0       0       0       0       0       0       0       0       0
             *

 87          KK   RR810 STORAGE
 88          KM   PROPOSED DETENTION BASIN
 89          KM    ROUTE RUNOFF FROM S810 THROUGH PROPOSED DETENTION BASIN
 90          KM    STRUCTURE ID:RR810
 91          KM    DIMENSIONS: L=1050ft, W=500ft, D=10ft, Sideslope (?H:1V)= 3,  Vol.= 93.6 ac-
 92          RS       1    STOR       0
 93          SV     0.0    19.4    39.6    60.6    71.3    82.3    93.6   105.0   116.6   128.4
 94          SE     0.0     2.0     4.0     6.0     7.0     8.0     9.0    10.0    11.0    12.0
 95          SQ     0.0    65.5    92.7   113.5   122.6   131.0   139.0   146.5   153.6   160.5
             *
1                                          HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 96          KK  810CHL   ROUTE
 97          KM   PROPOSED CHANNEL
 98          KM    ROUTE RR810 OUTFLOW TO FRS
 99          KM    STRUCTURE ID(s): 81010
100          KM    Slope=(1133.1 - 1105.8) / 2054.8
101          RS       3    FLOW      -1
102          RC   0.045   0.045   0.045  2054.80.013242   103.0
103          RX     0.0     9.0     9.0     9.0    19.0    19.0    19.0    28.0
104          RY   103.0   100.0   100.0   100.0   100.0   100.0   100.0   103.0
             *

105          KK  ALL800 COMBINE
106          KM        combination of all 800 series hydrographs AT FRS NO 2.
107          HC       2
             *
             * THE FOLLOWING PORTIONS ARE FROM THE WHITE TANK WASH FDS (ALPHA, 1996)
             *
             * White Tanks Wash Flood Insurance Study - 7-July-93 - JRB
             * ALPHA Engineering Group Inc. - 5 minute interval - 24 Hour Storm
             *

108          KK      S1   BASIN
109          KM   BASIN S1
110          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
111          KM    L=      2.4  Lca=       .7   S=  140.0  Kn= .050  LAG=  33.0
112          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
113          BA    1.46
114          LG     .19     .35    3.77     .31    7.00
115          UI    149.    284.    668.    981.   1216.   1674.   1082.    874.    754.    644.
116          UI    540.    422.    356.    320.    240.    191.    166.    138.    114.     92.
117          UI     73.     73.     54.     29.     29.     29.     29.     29.     29.     29.
118          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
119          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
             *
```

```
 120          KK      U1   BASIN
 121          KM   BASIN U1
 122          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 123          KM    L=      2.1  Lca=      1.1   S=  377.0  Kn= .050  LAG=  32.0
 124          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 125          BA    1.39
 126          LG     .26     .37    4.74     .22    8.00
 127          UI    147.    294.    688.    987.   1245.   1598.   1002.    831.    714.    602.
 128          UI    493.    381.    338.    278.    212.    177.    159.    112.    107.     72.
 129          UI     72.     67.     28.     28.     28.     28.     28.     28.     28.      0.
 130          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
 131          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *
1                                          HEC-1 INPUT                                                    PAGE  4

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 132          KK      V1   BASIN
 133          KM   BASIN V1
 134          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 135          KM    L=      2.7  Lca=      1.6   S=  389.0  Kn= .050  LAG=  40.0
 136          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 137          BA     .70
 138          LG     .26     .35    4.24     .41   13.00
 139          UI     59.     76.    200.    320.    406.    481.    660.    503.    372.    329.
 140          UI    290.    254.    221.    183.    150.    138.    123.     97.     77.     70.
 141          UI     64.     49.     45.     39.     29.     29.     29.     18.     11.     11.
 142          UI     11.     11.     11.     11.     11.     11.      0.      0.      0.      0.
              *

 143          KK      W1   BASIN
 144          KM   BASIN W1
 145          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 146          KM    L=      3.3  Lca=      1.6   S=  522.0  Kn= .050  LAG=  42.0
 147          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 148          BA    3.95
 149          LG     .30     .35    4.24     .40   15.00
 150          UI    317.    357.   1030.   1615.   2095.   2456.   3182.   3308.   2176.   1862.
 151          UI   1658.   1480.   1292.   1120.    914.    790.    722.    635.    518.    405.
 152          UI    375.    347.    270.    243.    223.    155.    155.    155.    129.     61.
 153          UI     61.     61.     61.     61.     61.     61.     61.     61.      0.      0.
              *

 154          KK    RRW1 STORAGE
 155          KM   PROPOSED DETENTION BASIN
 156          KM    ROUTE RUNOFF FROM SUBBASIN W1 THROUGH PROPOSED DETENTION BASIN
 157          KM    outlet pipe of 5 ft diameter assumed
 158          KM    STRUCTURE ID:RRW1
 159          KM    DIMENSIONS: L=1600ft, W=800ft, D=10ft, Sideslope (?H:1V)= 3,  Vol.= 231.2 ac
 160          RS       1    STOR       0
 161          SV     0.0    49.2    74.3    99.6   151.3   204.3   231.2   258.5   286.1   314.0
 162          SE     0.0     2.0     3.0     4.0     6.0     8.0     9.0    10.0    11.0    12.0
 163          SQ     0.0   161.8   198.1   228.8   280.2   323.6   343.2   361.8   379.4   396.3
              *

 164          KK   W1-1W   ROUTE
 165          KM   PROPOSED CHANNEL
 166          KM    ROUTE OUTFLOW FROM RRW1 VIA EAST CHANNEL ALIGNMENT THRU W2 TO INSET FAN APEX
 167          KM    STRUCTURE ID(s): W130, W135
 168          KM    Slope=(1361.3 - 1221.6) / 7444.4
 169          RS       3    FLOW      -1
 170          RC   0.045   0.045   0.045  7444.40.018766   102.0
 171          RX     0.0     6.0    46.0    52.0    77.0    83.0   123.0   129.0
 172          RY   102.0   100.0   100.0    98.0    98.0   100.0   100.0   102.0
              *
1                                          HEC-1 INPUT                                                    PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 173          KK     W2A   BASIN
 174          KM   ASSUMED SAME AS BASIN X1 - USED TO REPRESENT HILLSLOPE WATERSHED CONTRIBUTING
 175          KM   TO EAST SIDE OF SKYLINE FAN
 176          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 177          KM    L=      2.3  Lca=      1.4   S=  457.0  Kn= .050  LAG=  35.0
 178          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 179          BA     .77
 180          LG     .28     .35    4.30     .43   12.00
 181          UI     74.    129.    301.    465.    569.    776.    674.    466.    404.    351.
 182          UI    300.    248.    196.    175.    151.    117.     95.     82.     70.     57.
 183          UI     50.     36.     36.     35.     14.     14.     14.     14.     14.     14.
 184          UI     14.     14.      0.      0.      0.      0.      0.      0.      0.      0.
              *

 185          KK    CW2A COMBINE
 186          KM    COMBINE RUNOFF FROM HILLSLOPE WATERSHED WITH ROUTED FLOW FROM SKYLINE FAN AP
 187          HC       2
              *

 188          KK   RRW2A STORAGE
 189          KM   PROPOSED DETENTION BASIN
 190          KM    ROUTE COMBINED FLOW THROUGH PROPOSED DETENTION BASIN AT INSET FAN ON EAST SI
 191          KM    outlet pipe of 5 ft diameter assumed
 192          KM    STRUCTURE ID:RRW2A
```

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 193          KM    DIMENSIONS: L=800ft, W=400ft, D=8ft, Sideslope (?H:1V)= 3,  Vol.= 43.4 ac-ft
 194          RS       1    STOR       0
 195          SV     0.0    11.6    23.9    36.7    50.2    57.2    64.3    71.7    79.1    86.8
 196          SE     0.0     2.0     4.0     6.0     8.0     9.0    10.0    11.0    12.0    13.0
 197          SQ     0.0   192.5   272.3   333.5   385.1   408.4   430.5   451.5   471.6   490.9
              *

 198          KK  W2AX1I   ROUTE
 199          KM   PROPOSED CHANNEL
 200          KM    ROUTE OUTFLOW FROM RRW2A TO CONFLUENCE WITH OUTFLOW FROM RRX1 IN PROPOSED CH
 201          KM    STRUCTURE ID(s): W140
 202          KM    Slope=(1221.6 - 1184.0) / 2235.9
 203          RS       1    FLOW      -1
 204          RC   0.045   0.045   0.045  2235.90.016851   103.0
 205          RX     0.0     9.0     9.0     9.0    19.0    19.0    19.0    28.0
 206          RY   103.0   100.0   100.0   100.0   100.0   100.0   100.0   103.0
              *

 207          KK      X1   BASIN
 208          KM   BASIN X1
 209          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 210          KM    L=      2.3  Lca=      1.4   S=  457.0  Kn= .050  LAG=  35.0
 211          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 212          BA     .77
 213          LG     .28     .35    4.30     .43   12.00
 214          UI     74.    129.    301.    465.    569.    776.    674.    466.    404.    351.
 215          UI    300.    248.    196.    175.    151.    117.     95.     82.     70.     57.
 216          UI     50.     36.     36.     35.     14.     14.     14.     14.     14.     14.
 217          UI     14.     14.      0.      0.      0.      0.      0.      0.      0.      0.
              *
1                                                HEC-1 INPUT                                                PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 218          KK    RRX1 STORAGE
 219          KM   PROPOSED DETENTION BASIN
 220          KM    ROUTE RUNOFF FROM X1 THROUGH PROPOSED DETENTION BASIN
 221          KM    outlet pipe of 2.5 ft diameter assumed
 222          KM    STRUCTURE ID:RRX1
 223          KM    DIMENSIONS: L=800ft, W=400ft, D=9ft, Sideslope (?H:1V)= 3,  Vol.= 47.3 ac-ft
 224          RS       1    STOR       0
 225          SV     0.0     2.7     5.4    16.6    28.4    34.5    40.8    47.3    53.9    60.6
 226          SE     0.0     0.5     1.0     3.0     5.0     6.0     7.0     8.0     9.0    10.0
 227          SQ     0.0    24.1    34.0    59.0    76.1    83.4    90.0    96.3   102.1   107.6
              *

 228          KK  X1-X1I   ROUTE
 229          KM   PROPOSED CHANNEL
 230          KM    ROUTE OUTFLOW FROM RRX1 TO CONFLUENCE WITH PROPOSED NEW CHANNEL FROM RRW2A
 231          KM    STRUCTURE ID(s): X110
 232          KM    Slope=(1198.1 - 1184.0) /  861.7
 233          RS       1    FLOW      -1
 234          RC   0.045   0.045   0.045   861.7 0.01639   102.0
 235          RX     0.0     6.0    11.0    14.0    24.0    27.0    32.0    38.0
 236          RY   102.0   100.0   100.0    99.0    99.0   100.0   100.0   102.0
              *

 237          KK    CX1I COMBINE
 238          KM    COMBINE ROUTED FLOW FROM RRX1 AND RRW2A
 239          HC       2
              *

 240          KK  X1I-1W   ROUTE
 241          KM   PROPOSED CHANNEL
 242          KM    ROUTE OUTFLOW FROM RRX1 TO FRS NO. 3 VIA PROPOSED NEW CHANNEL
 243          KM    STRUCTURE ID(s): W150
 244          KM    Slope=(1184.0 - 1152.1) / 1648.8
 245          RS       1    FLOW      -1
 246          RC   0.045   0.045   0.045  1648.80.019313   102.0
 247          RX     0.0     6.0    16.0    23.5    33.5    41.0    51.0    57.0
 248          RY   102.0   100.0   100.0    97.5    97.5   100.0   100.0   102.0
              *

 249          KK      W2   BASIN
 250          KM   BASIN W2
 251          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 252          KM    L=      2.3  Lca=      1.1   S=  422.0  Kn= .050  LAG=  33.0
 253          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 254          BA    2.69
 255          LG     .27     .35    4.19     .40    3.00
 256          UI    274.    522.   1229.   1805.   2237.   3080.   1992.   1608.   1388.   1185.
 257          UI    993.    777.    656.    588.    442.    351.    306.    255.    210.    170.
 258          UI    134.    134.     99.     53.     53.     53.     53.     53.     53.     53.
 259          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *
1                                                HEC-1 INPUT                                                PAGE  7

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 260          KK      Y1   BASIN
 261          KM   BASIN Y1
 262          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 263          KM    L=      1.3  Lca=       .5   S=  789.0  Kn= .050  LAG=  17.0
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          264          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
          265          BA     .57
          266          LG     .38     .35    4.24     .42   12.00
          267          UI    160.    607.   1074.    802.    556.    393.    270.    184.    131.     88.
          268          UI     57.     43.     22.     22.     22.      0.      0.      0.      0.      0.
          269          ZZ
1
                SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

    51        S800
                V
                V
    60       RR800
                V
                V
    69      800CHL
                .
                .
    78           .        S810
                 .           V
                 .           V
    87           .       RR810
                 .           V
                 .           V
    96           .      810CHL
                 .           .
                 .           .
   105      ALL800............
                 .
                 .
   108           .          S1
                 .           .
                 .           .
   120           .           .          U1
                 .           .           .
                 .           .           .
   132           .           .           .          V1
                 .           .           .           .
                 .           .           .           .
   143           .           .           .           .          W1
                 .           .           .           .           V
                 .           .           .           .           V
   154           .           .           .           .        RRW1
                 .           .           .           .           V
                 .           .           .           .           V
   164           .           .           .           .       W1-1W
                 .           .           .           .           .
                 .           .           .           .           .
   173           .           .           .           .           .         W2A
                 .           .           .           .           .           .
                 .           .           .           .           .           .
   185           .           .           .           .       CW2A............
                 .           .           .           .           V
                 .           .           .           .           V
   188           .           .           .           .      RRW2A
                 .           .           .           .           V
                 .           .           .           .           V
   198           .           .           .           .     W2AX1I
                 .           .           .           .           .
                 .           .           .           .           .
   207           .           .           .           .           .          X1
                 .           .           .           .           .           V
                 .           .           .           .           .           V
   218           .           .           .           .           .        RRX1
                 .           .           .           .           .           V
                 .           .           .           .           .           V
   228           .           .           .           .           .      X1-X1I
                 .           .           .           .           .           .
                 .           .           .           .           .           .
   237           .           .           .           .       CX1I............
                 .           .           .           .           V
                 .           .           .           .           V
   240           .           .           .           .     X1I-1W
                 .           .           .           .           .
                 .           .           .           .           .
   249           .           .           .           .           .          W2
                 .           .           .           .           .           .
                 .           .           .           .           .           .
   260           .           .           .           .           .           .          Y1

 (***) RUNOFF ALSO COMPUTED AT THIS LOCATION
1****************************************                                    ****************************************
 *                                      *                                    *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                    *   U.S. ARMY CORPS OF ENGINEERS       *
 *              JUN   1998              *                                    *   HYDROLOGIC ENGINEERING CENTER      *
 *            VERSION 4.1               *                                    *         609 SECOND STREET            *
 *                                      *                                    *      DAVIS, CALIFORNIA 95616         *
 *  RUN DATE   19APR06  TIME  15:57:52  *                                    *          (916) 756-1104              *
 *                                      *                                    *                                      *
 ****************************************                                    ****************************************
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HYDROLOGY FOR STEP 2 ALTERNATIVES FOR SUN VALLEY ADMP
   - FRS NO. 2 & 3 SUBBAREA
   - ALTERNATIVE B3

Alternative Description
The purpose of Alternative B is to capture the upstream flow at the
apex using online detention basins.  The presence of the detention
basins eliminates the downstream alluvial fan uncertainties by
controlling the flow from the apices to the outfall.  Alternative B3
is based on using a relatively larger on-line detention basin at the
apex accompanied by smaller excavated channel sections in the down fan
direction.  The excavated earthen channels are complemented with a
120-foot wide adjacent riparian preservation corridor.


JE FULLER/ HYDROLOGY & GEOMORPHOLOGY, INC.
JANUARY 2006

MODEL BASED ON S800 SERIES PORTIONS OF:

    FCDMC
    A4_EX24 - SVADMP - Area 4 Existing Conditions 100-yr 24-hr
    Major Basin: 01
    100 Year - Return Period
    24 Hour Storm
    Multiple Storms
    Unit Hydrograph: S-Graph
    10/04/2005


AND BASED ON PORTIONS OF:

     WHITE TANK WASH FDS (ALPHA, 1996)


37 IO          OUTPUT CONTROL VARIABLES
                     IPRNT           5  PRINT CONTROL
                     IPLOT           0  PLOT CONTROL
                     QSCAL          0.  HYDROGRAPH PLOT SCALE

   IT          HYDROGRAPH TIME DATA
                      NMIN           5  MINUTES IN COMPUTATION INTERVAL
                     IDATE      1JAN99  STARTING DATE
                     ITIME        1200  STARTING TIME
                        NQ        2000  NUMBER OF HYDROGRAPH ORDINATES
                    NDDATE      8JAN99  ENDING DATE
                    NDTIME        1035  ENDING TIME
                     ICENT          19  CENTURY MARK

              COMPUTATION INTERVAL     .08 HOURS
                   TOTAL TIME BASE  166.58 HOURS

        ENGLISH UNITS
             DRAINAGE AREA          SQUARE MILES
             PRECIPITATION DEPTH    INCHES
             LENGTH, ELEVATION      FEET
             FLOW                   CUBIC FEET PER SECOND
             STORAGE VOLUME         ACRE-FEET
             SURFACE AREA           ACRES
             TEMPERATURE            DEGREES FAHRENHEIT

38 JD          INDEX STORM NO. 1
                      STRM        4.20  PRECIPITATION DEPTH
                      TRDA         .10  TRANSPOSITION DRAINAGE AREA

39 PI            PRECIPITATION PATTERN
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                     .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
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                     .01       .01       .01       .01       .01       .01       .01       .01       .03       .03
                     .03       .09       .09       .09       .01       .01       .01       .01       .01       .01
                     .01       .01       .01       .01       .01       .01       .00       .00       .00       .00
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                .00       .00       .00       .00       .00       .00       .00       .00

49 JD        INDEX STORM NO. 2
                STRM        3.99  PRECIPITATION DEPTH
                TRDA       10.00  TRANSPOSITION DRAINAGE AREA

 0 PI         PRECIPITATION PATTERN
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
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                .03       .09       .09       .09       .01       .01       .01       .01       .01       .01
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                .00       .00       .00       .00       .00       .00       .00       .00

50 JD        INDEX STORM NO. 3
                STRM        3.78  PRECIPITATION DEPTH
                TRDA       30.00  TRANSPOSITION DRAINAGE AREA

 0 PI         PRECIPITATION PATTERN
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
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                .01       .01       .01       .01       .01       .01       .01       .01       .03       .03
                .03       .09       .09       .09       .01       .01       .01       .01       .01       .01
                .01       .01       .01       .01       .01       .01       .00       .00       .00       .00
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                .00       .00       .00       .00       .00       .00       .00       .00
1
                                                RUNOFF SUMMARY
                                        FLOW IN CUBIC FEET PER SECOND
                                     TIME IN HOURS,  AREA IN SQUARE MILES

                                          PEAK   TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM     TIME OF
        OPERATION        STATION          FLOW    PEAK                                           AREA      STAGE     MAX STAGE
+                                                            6-HOUR     24-HOUR     72-HOUR

        HYDROGRAPH AT
+                          S800           474.   12.25        61.         16.          5.        .43
        ROUTED TO
+                         RR800            55.   13.25        46.         16.          5.        .43
        ROUTED TO
+                        800CHL            55.   13.25        46.         16.          5.        .43
        HYDROGRAPH AT
+                          S810          1387.   12.33       209.         54.         18.       1.61
```

+	ROUTED TO	RR810	132.	13.67	118.	53.	18.	1.61
+	ROUTED TO	810CHL	132.	13.75	118.	53.	18.	1.61
+	2 COMBINED AT	ALL800	185.	13.58	162.	69.	23.	2.04
+	HYDROGRAPH AT	S1	1520.	12.33	213.	56.	19.	1.46
+	HYDROGRAPH AT	U1	1540.	12.25	214.	57.	19.	1.39
+	HYDROGRAPH AT	V1	599.	12.42	99.	28.	9.	.70
+	HYDROGRAPH AT	W1	3228.	12.42	562.	159.	53.	3.95
+	ROUTED TO	RRW1	333.	13.92	303.	153.	53.	3.95
+	ROUTED TO	W1-1W	333.	14.17	303.	153.	53.	3.95
+	HYDROGRAPH AT	W2A	714.	12.33	106.	29.	10.	.77
+	2 COMBINED AT	CW2A	787.	12.33	379.	180.	62.	4.72
+	ROUTED TO	RRW2A	349.	14.50	334.	180.	62.	4.72
+	ROUTED TO	W2AX1I	349.	14.58	334.	180.	62.	4.72
+	HYDROGRAPH AT	X1	714.	12.33	106.	29.	10.	.77
+	ROUTED TO	RRX1	87.	13.42	74.	29.	10.	.77
+	ROUTED TO	X1-X1I	87.	13.50	74.	29.	10.	.77
+	2 COMBINED AT	CX1I	431.	14.08	405.	207.	72.	5.49
+	ROUTED TO	X1I-1W	431.	14.17	405.	207.	72.	5.49
+	HYDROGRAPH AT	W2	2472.	12.33	325.	84.	28.	2.69
+	HYDROGRAPH AT	Y1	848.	12.08	79.	22.	7.	.57

*** NORMAL END OF HEC-1 ***

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1****************************************                    ****************************************
 *                                      *                    *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                    *    U.S. ARMY CORPS OF ENGINEERS      *
 *              JUN   1998              *                    *    HYDROLOGIC ENGINEERING CENTER     *
 *           VERSION 4.1                *                    *          609 SECOND STREET           *
 *                                      *                    *       DAVIS, CALIFORNIA 95616        *
 *  RUN DATE   19APR06  TIME  16:02:41  *                    *           (916) 756-1104             *
 *                                      *                    *                                      *
 ****************************************                    ****************************************

                                    X     X  XXXXXXX   XXXXX           X
                                    X     X  X        X     X         XX
                                    X     X  X        X                X
                                    XXXXXXX  XXXX     X        XXXXX   X
                                    X     X  X        X                X
                                    X     X  X        X     X          X
                                    X     X  XXXXXXX   XXXXX          XXX


THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                HEC-1 INPUT                                                PAGE  1

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

            1           ID    HYDROLOGY FOR STEP 2 ALTERNATIVES FOR SUN VALLEY ADMP
            2           ID       - FRS NO. 2 & 3 SUBBAREA
            3           ID       - ALTERNATIVE B41 - BIG BASIN, LEVEED CORRIDOR,
            4           ID            alignments from Skyline Wash along west side of fan
            5           ID            and separate corridors for Sky ET fan
            6           ID
            7           ID   Alternative Description
            8           ID   The purpose of Alternative B is to capture the upstream flow at the
            9           ID   apex using online detention basins.  The presence of the detention basins
           10           ID   eliminates the downstream alluvial fan uncertainties by controlling the
           11           ID   flow from the apices to the outfall.  Alternative B4-1 is based on using a
           12           ID   relatively larger on-line detention basin at the apex accompanied by smaller
           13           ID   leveed channel sections in the down fan direction.  It is the first of three
           14           ID   corridor alignments considered as part of the Alternative B4 series.
           15           ID
           16           ID
           17           ID    JE FULLER/ HYDROLOGY & GEOMORPHOLOGY, INC.
           18           ID    JANUARY 2006
           19           ID
           20           ID    MODEL BASED ON S800 SERIES PORTIONS OF:
           21           ID
           22           ID        FCDMC
           23           ID        A4_EX6 - SVADMP - Area 4 Existing Conditions 100-yr 6-hr
           24           ID        Major Basin: 01
           25           ID        100 Year - Return Period
           26           ID        6 Hour Storm
           27           ID        Multiple Storms
           28           ID        Unit Hydrograph: S-Graph
           29           ID        10/04/2005
           30           ID
           31           ID
           32           ID    AND BASED ON PORTIONS OF:
           33           ID
           34           ID         WHITE TANK WASH FDS (ALPHA, 1996)
           35           ID
           36           ID
           37           IT       5  1JAN99    1200    2000
           38           IN      15
           39           IO       5
                       *DIAGRAM
                       *
           40           JD   3.196  0.1000
           41           PC   0.000   0.008   0.016   0.025   0.033   0.041   0.050   0.058   0.066   0.074
           42           PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931   0.950
           43           PC   0.962   0.972   0.983   0.991   1.000
           44           JD   3.181  0.5000
           45           PC   0.000   0.008   0.016   0.025   0.033   0.041   0.050   0.058   0.066   0.074
           46           PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931   0.950
           47           PC   0.962   0.972   0.983   0.991   1.000
           48           JD   3.120     2.8
           49           PC   0.000   0.009   0.016   0.025   0.034   0.042   0.051   0.059   0.068   0.077
           50           PC   0.088   0.101   0.121   0.164   0.253   0.451   0.694   0.836   0.900   0.938
           51           PC   0.950   0.963   0.975   0.988   1.000
           52           JD   2.950    16.0
           53           PC   0.000   0.015   0.020   0.030   0.048   0.063   0.076   0.090   0.105   0.119
1                                                HEC-1 INPUT                                                PAGE  2
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  54          PC   0.135   0.152   0.175   0.222   0.304   0.472   0.670   0.796   0.868   0.912
  55          PC   0.946   0.960   0.973   0.987   1.000
  56          JD   2.592    90.0
  57          PC   0.000   0.021   0.035   0.051   0.071   0.087   0.105   0.125   0.143   0.160
  58          PC   0.179   0.201   0.232   0.281   0.364   0.500   0.658   0.773   0.841   0.888
  59          PC   0.927   0.945   0.964   0.982   1.000
              *

  60          KK    S800   BASIN
  61          KM        Compute runoff from subbasin 800
  62          BA   0.431
  63          LG    0.27    0.35    4.60    0.34       9
  64          UI      49     118     252     353     489     442     297     255     213     170
  65          UI     134     113      92      69      57      48      38      29      24      25
  66          UI      12       9      10       9      10       9      10       0       0       0
  67          UI       0       0       0       0       0       0       0       0       0       0
  68          UI       0       0       0       0       0       0       0       0       0       0
              *

  69          KK   RR800 STORAGE
  70          KM   PROPOSED DETENTION BASIN
  71          KM    ROUTE RUNOFF FROM S800 THROUGH PROPOSED DETENTION BASIN
  72          KM    STRUCTURE ID:RR800
  73          KM    DIMENSIONS: L=750ft, W=300ft, D=8ft, Sideslope (?H:1V)= 3,  Vol.= 29.7 ac-ft
  74          RS       1    STOR       0
  75          SV     0.0     1.9     3.8     7.8    11.9    16.1    20.5    25.0    29.7    34.4
  76          SE     0.0     0.5     1.0     2.0     3.0     4.0     5.0     6.0     7.0     8.0
  77          SQ     0.0    16.7    23.6    33.4    40.9    47.3    52.9    57.9    62.5    66.9
              *

  78          KK  800CHL   ROUTE
  79          KM   PROPOSED CHANNEL
  80          KM    ROUTE RR800 OUTFLOW TO FRS
  81          KM    STRUCTURE ID(s): 80010
  82          KM    Slope=(1129.3 - 1105.8) / 1366.3
  83          RS       3    FLOW      -1
  84          RC   0.045   0.045   0.045  1366.30.017151   104.0
  85          RX     0.0    12.0    12.0    12.0    24.0    24.0    24.0    36.0
  86          RY   104.0   100.0   100.0   100.0   100.0   100.0   100.0   104.0
              *

  87          KK    S810   BASIN
  88          KM        Compute runoff from subbasin 810
  89          BA   1.607
  90          LG    0.30    0.35    4.65    0.32       4
  91          UI     140     200     493     790     997    1196    1589    1066     843     750
  92          UI     668     569     489     397     336     309     256     202     176     155
  93          UI     130     106     102      68      68      69      46      27      27      27
  94          UI      26      27      27      27      27       0       0       0       0       0
  95          UI       0       0       0       0       0       0       0       0       0       0
              *
1                                          HEC-1 INPUT                                          PAGE  3

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  96          KK   RR810 STORAGE
  97          KM   PROPOSED DETENTION BASIN
  98          KM    ROUTE RUNOFF FROM S810 THROUGH PROPOSED DETENTION BASIN
  99          KM    STRUCTURE ID:RR810
 100          KM    DIMENSIONS: L=1050ft, W=500ft, D=10ft, Sideslope (?H:1V)= 3,  Vol.= 93.6 ac-
 101          RS       1    STOR       0
 102          SV     0.0    19.4    39.6    60.6    71.3    82.3    93.6   105.0   116.6   128.4
 103          SE     0.0     2.0     4.0     6.0     7.0     8.0     9.0    10.0    11.0    12.0
 104          SQ     0.0    65.5    92.7   113.5   122.6   131.0   139.0   146.5   153.6   160.5
              *

 105          KK  810CHL   ROUTE
 106          KM   PROPOSED CHANNEL
 107          KM    ROUTE RR810 OUTFLOW TO FRS
 108          KM    STRUCTURE ID(s): 81010
 109          KM    Slope=(1133.1 - 1105.8) / 2054.8
 110          RS       3    FLOW      -1
 111          RC   0.045   0.045   0.045  2054.80.013242   104.0
 112          RX     0.0    12.0    12.0    12.0    44.0    44.0    44.0    56.0
 113          RY   104.0   100.0   100.0   100.0   100.0   100.0   100.0   104.0
              *

 114          KK  ALL800 COMBINE
 115          KM        combination of all 800 series hydrographs AT FRS NO 2.
 116          HC       2
              *
              * THE FOLLOWING PORTIONS ARE FROM THE WHITE TANK WASH FDS (ALPHA, 1996)
              *
              * White Tanks Wash Flood Insurance Study - 7-July-93 - JRB
              * ALPHA Engineering Group Inc. - 5 minute interval - 24 Hour Storm
              *

 117          KK      S1   BASIN
 118          KM   BASIN S1
 119          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 120          KM    L=       2.4  Lca=        .7   S=  140.0  Kn= .050  LAG=  33.0
 121          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
```

```
 122          BA    1.46
 123          LG     .19     .35    3.77     .31    7.00
 124          UI    149.    284.    668.    981.   1216.   1674.   1082.    874.    754.    644.
 125          UI    540.    422.    356.    320.    240.    191.    166.    138.    114.     92.
 126          UI     73.     73.     54.     29.     29.     29.     29.     29.     29.     29.
 127          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
 128          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *

 129          KK      U1   BASIN
 130          KM   BASIN U1
 131          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 132          KM    L=      2.1  Lca=      1.1   S=  377.0  Kn= .050  LAG=  32.0
 133          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 134          BA    1.39
 135          LG     .26     .37    4.74     .22    8.00
 136          UI    147.    294.    688.    987.   1245.   1598.   1002.    831.    714.    602.
1                                          HEC-1 INPUT                                          PAGE  4

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 137          UI    493.    381.    338.    278.    212.    177.    159.    112.    107.     72.
 138          UI     72.     67.     28.     28.     28.     28.     28.     28.     28.      0.
 139          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
 140          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *

 141          KK      V1   BASIN
 142          KM   BASIN V1
 143          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 144          KM    L=      2.7  Lca=      1.6   S=  389.0  Kn= .050  LAG=  40.0
 145          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 146          BA     .70
 147          LG     .26     .35    4.24     .41   13.00
 148          UI     59.     76.    200.    320.    406.    481.    660.    503.    372.    329.
 149          UI    290.    254.    221.    183.    150.    138.    123.     97.     77.     70.
 150          UI     64.     49.     45.     39.     29.     29.     29.     18.     11.     11.
 151          UI     11.     11.     11.     11.     11.     11.      0.      0.      0.      0.
              *

 152          KK      W1   BASIN
 153          KM   BASIN W1
 154          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 155          KM    L=      3.3  Lca=      1.6   S=  522.0  Kn= .050  LAG=  42.0
 156          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 157          BA    3.95
 158          LG     .30     .35    4.24     .40   15.00
 159          UI    317.    357.   1030.   1615.   2095.   2456.   3182.   3308.   2176.   1862.
 160          UI   1658.   1480.   1292.   1120.    914.    790.    722.    635.    518.    405.
 161          UI    375.    347.    270.    243.    223.    155.    155.    155.    129.     61.
 162          UI     61.     61.     61.     61.     61.     61.     61.     61.      0.      0.
              *

 163          KK    RRW1 STORAGE
 164          KM   PROPOSED DETENTION BASIN
 165          KM    ROUTE RUNOFF FROM SUBBASIN W1 THROUGH PROPOSED DETENTION BASIN
 166          KM    STRUCTURE ID:RRW1
 167          KM    DIMENSIONS: L=1600ft, W=800ft, D=10ft, Sideslope (?H:1V)= 3,  Vol.= 231.2 ac
 168          RS       1    STOR       0
 169          SV     0.0    24.4    49.2    99.6   151.3   177.6   204.3   231.2   258.5   286.1
 170          SE     0.0     1.0     2.0     4.0     6.0     7.0     8.0     9.0    10.0    11.0
 171          SQ     0.0   114.4   161.8   228.8   280.2   302.7   323.6   343.2   361.8   379.4
              *

 172          KK   W1-1W   ROUTE
 173          KM   PROPOSED CHANNEL
 174          KM    ROUTE OUTFLOW FROM RRW1 TO FRS NO. 3 VIA WEST CHANNEL ALIGNMENT THRU W2
 175          KM    STRUCTURE ID(s): W120
 176          KM    Slope=(1361.3 - 1166.3) / 9260.3
 177          RS       4    FLOW      -1
 178          RC   0.045   0.045   0.045  9260.30.021066   104.0
 179          RX     0.0    12.0    12.0    12.0   272.0   272.0   272.0   284.0
 180          RY   104.0   100.0   100.0   100.0   100.0   100.0   100.0   104.0
              *
1                                          HEC-1 INPUT                                          PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 181          KK      W2   BASIN
 182          KM   BASIN W2
 183          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 184          KM    L=      2.3  Lca=      1.1   S=  422.0  Kn= .050  LAG=  33.0
 185          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 186          BA    2.69
 187          LG     .27     .35    4.19     .40    3.00
 188          UI    274.    522.   1229.   1805.   2237.   3080.   1992.   1608.   1388.   1185.
 189          UI    993.    777.    656.    588.    442.    351.    306.    255.    210.    170.
 190          UI    134.    134.     99.     53.     53.     53.     53.     53.     53.     53.
 191          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *

 192          KK     1W COMBINE
 193          KM     Combining W1 & W2
 194          HC       2
```

```
                *
 195            KK     W2A   BASIN
 196            KM   ASSUMED SAME AS BASIN X1 - USED TO REPRESENT HILLSLOPE WATERSHED CONTRIBUTING
 197            KM   TO EAST SIDE OF SKYLINE FAN
 198            KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 199            KM    L=      2.3  Lca=      1.4   S=  457.0  Kn= .050  LAG=  35.0
 200            KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 201            BA     .77
 202            LG     .28     .35    4.30     .43   12.00
 203            UI     74.    129.    301.    465.    569.    776.    674.    466.    404.    351.
 204            UI    300.    248.    196.    175.    151.    117.     95.     82.     70.     57.
 205            UI     50.     36.     36.     35.     14.     14.     14.     14.     14.     14.
 206            UI     14.     14.      0.      0.      0.      0.      0.      0.      0.      0.
                *
 207            KK   RRW2A STORAGE
 208            KM   PROPOSED DETENTION BASIN
 209            KM    ROUTE RUNOFF FROM W2A THROUGH PROPOSED DETENTION BASIN AT INSET FAN ON EAST
 210            KM    STRUCTURE ID:RRW2A
 211            KM    DIMENSIONS: L=900ft, W=400ft, D=8ft, Sideslope (?H:1V)= 3,  Vol.= 49 ac-ft
 212            RS       1    STOR       0
 213            SV     0.0     3.2     6.5    13.2    20.0    27.0    34.1    41.5    49.0    56.7
 214            SE     0.0     0.5     1.0     2.0     3.0     4.0     5.0     6.0     7.0     8.0
 215            SQ     0.0    24.1    34.0    48.1    59.0    68.1    76.1    83.4    90.0    96.3
                *
 216            KK  W2AX1I   ROUTE
 217            KM   PROPOSED CHANNEL
 218            KM    ROUTE OUTFLOW FROM RRW2A TO CONFLUENCE WITH OUTFLOW FROM RRX1 IN PROPOSED CH
 219            KM    STRUCTURE ID(s): W140
 220            KM    Slope=(1221.6 - 1184.0) / 2235.9
 221            RS       1    FLOW      -1
 222            RC   0.045   0.045   0.045  2235.90.016851   104.0
 223            RX     0.0    12.0    12.0    12.0    30.0    30.0    30.0    42.0
 224            RY   104.0   100.0   100.0   100.0   100.0   100.0   100.0   104.0
                *
1                                          HEC-1 INPUT                                          PAGE  6

LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 225            KK      X1   BASIN
 226            KM   BASIN X1
 227            KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 228            KM    L=      2.3  Lca=      1.4   S=  457.0  Kn= .050  LAG=  35.0
 229            KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 230            BA     .77
 231            LG     .28     .35    4.30     .43   12.00
 232            UI     74.    129.    301.    465.    569.    776.    674.    466.    404.    351.
 233            UI    300.    248.    196.    175.    151.    117.     95.     82.     70.     57.
 234            UI     50.     36.     36.     35.     14.     14.     14.     14.     14.     14.
 235            UI     14.     14.      0.      0.      0.      0.      0.      0.      0.      0.
                *
 236            KK    RRX1 STORAGE
 237            KM   PROPOSED DETENTION BASIN
 238            KM    ROUTE RUNOFF FROM X1 THROUGH PROPOSED DETENTION BASIN
 239            KM    STRUCTURE ID:RRX1
 240            KM    DIMENSIONS: L=800ft, W=400ft, D=9ft, Sideslope (?H:1V)= 3,  Vol.= 47.3 ac-ft
 241            RS       1    STOR       0
 242            SV     0.0    10.9    16.6    22.4    28.4    34.5    40.8    47.3    53.9    60.6
 243            SE     0.0     2.0     3.0     4.0     5.0     6.0     7.0     8.0     9.0    10.0
 244            SQ     0.0    48.1    59.0    68.1    76.1    83.4    90.0    96.3   102.1   107.6
                *
 245            KK  X1-X1I   ROUTE
 246            KM   PROPOSED CHANNEL
 247            KM    ROUTE OUTFLOW FROM RRX1 TO CONFLUENCE WITH PROPOSED NEW CHANNEL FROM RRW2A
 248            KM    STRUCTURE ID(s): X110
 249            KM    Slope=(1198.1 - 1184.0) /  861.7
 250            RS       1    FLOW      -1
 251            RC   0.045   0.045   0.045   861.7 0.01639   104.0
 252            RX     0.0    12.0    12.0    12.0    30.0    30.0    30.0    42.0
 253            RY   104.0   100.0   100.0   100.0   100.0   100.0   100.0   104.0
                *
 254            KK    CX1I COMBINE
 255            KM    COMBINE ROUTED FLOW FROM RRX1 AND RRW2A
 256            HC       2
                *
 257            KK  X1I-1W   ROUTE
 258            KM   PROPOSED CHANNEL
 259            KM    ROUTE OUTFLOW FROM RRX1 TO FRS NO. 3 VIA PROPOSED NEW CHANNEL
 260            KM    STRUCTURE ID(s): W150
 261            KM    Slope=(1184.0 - 1152.1) / 1648.8
 262            RS       1    FLOW      -1
 263            RC   0.045   0.045   0.045  1648.80.019313   104.0
 264            RX     0.0    12.0    12.0    12.0    48.0    48.0    48.0    60.0
 265            RY   104.0   100.0   100.0   100.0   100.0   100.0   100.0   104.0
                *
1                                          HEC-1 INPUT                                          PAGE  7

LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
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266          KK      Y1   BASIN
267          KM   BASIN Y1
268          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
269          KM    L=      1.3  Lca=       .5   S=  789.0  Kn= .050  LAG=  17.0
270          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
271          BA     .57
272          LG     .38     .35    4.24     .42   12.00
273          UI    160.    607.   1074.    802.    556.    393.    270.    184.    131.     88.
274          UI     57.     43.     22.     22.     22.      0.      0.      0.      0.      0.
275          ZZ
1
                SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

    60        S800
                V
                V
    69       RR800
                V
                V
    78      800CHL
                .
                .
    87           .        S810
                 .           V
                 .           V
    96           .       RR810
                 .           V
                 .           V
   105           .      810CHL
                 .           .
                 .           .
   114      ALL800............
                 .
                 .
   117           .          S1
                 .           .
                 .           .
   129           .           .          U1
                 .           .           .
                 .           .           .
   141           .           .           .          V1
                 .           .           .           .
                 .           .           .           .
   152           .           .           .           .          W1
                 .           .           .           .           V
                 .           .           .           .           V
   163           .           .           .           .        RRW1
                 .           .           .           .           V
                 .           .           .           .           V
   172           .           .           .           .       W1-1W
                 .           .           .           .           .
                 .           .           .           .           .
   181           .           .           .           .           .          W2
                 .           .           .           .           .           .
                 .           .           .           .           .           .
   192           .           .           .           .          1W............
                 .           .           .           .           .
                 .           .           .           .           .
   195           .           .           .           .           .         W2A
                 .           .           .           .           .           V
                 .           .           .           .           .           V
   207           .           .           .           .           .       RRW2A
                 .           .           .           .           .           V
                 .           .           .           .           .           V
   216           .           .           .           .           .      W2AX1I
                 .           .           .           .           .           .
                 .           .           .           .           .           .
   225           .           .           .           .           .           .          X1
                 .           .           .           .           .           .           V
                 .           .           .           .           .           .           V
   236           .           .           .           .           .           .        RRX1
                 .           .           .           .           .           .           V
                 .           .           .           .           .           .           V
   245           .           .           .           .           .           .      X1-X1I
                 .           .           .           .           .           .           .
                 .           .           .           .           .           .           .
   254           .           .           .           .           .        CX1I............
                 .           .           .           .           .           V
                 .           .           .           .           .           V
   257           .           .           .           .           .      X1I-1W
                 .           .           .           .           .           .
                 .           .           .           .           .           .
   266           .           .           .           .           .           .          Y1

 (***) RUNOFF ALSO COMPUTED AT THIS LOCATION
1****************************************                                    ****************************************
 *                                      *                                    *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                    *   U.S. ARMY CORPS OF ENGINEERS       *
 *              JUN   1998              *                                    *   HYDROLOGIC ENGINEERING CENTER      *
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*            VERSION 4.1                *                          *          609 SECOND STREET          *
*                                       *                          *       DAVIS, CALIFORNIA 95616       *
*  RUN DATE   19APR06  TIME  16:02:41   *                          *           (916) 756-1104            *
*                                       *                          *                                     *
*****************************************                          *****************************************
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HYDROLOGY FOR STEP 2 ALTERNATIVES FOR SUN VALLEY ADMP
   - FRS NO. 2 & 3 SUBBAREA
   - ALTERNATIVE B41 - BIG BASIN, LEVEED CORRIDOR,
        alignments from Skyline Wash along west side of fan
        and separate corridors for Sky ET fan

Alternative Description
The purpose of Alternative B is to capture the upstream flow at the
apex using online detention basins.  The presence of the detention basins
eliminates the downstream alluvial fan uncertainties by controlling the
flow from the apices to the outfall.  Alternative B4-1 is based on using a
relatively larger on-line detention basin at the apex accompanied by smaller
leveed channel sections in the down fan direction.  It is the first of three
corridor alignments considered as part of the Alternative B4 series.


JE FULLER/ HYDROLOGY & GEOMORPHOLOGY, INC.
JANUARY 2006

MODEL BASED ON S800 SERIES PORTIONS OF:

    FCDMC
    A4_EX6 - SVADMP - Area 4 Existing Conditions 100-yr 6-hr
    Major Basin: 01
    100 Year - Return Period
    6 Hour Storm
    Multiple Storms
    Unit Hydrograph: S-Graph
    10/04/2005


AND BASED ON PORTIONS OF:

     WHITE TANK WASH FDS (ALPHA, 1996)


39 IO          OUTPUT CONTROL VARIABLES
                     IPRNT           5  PRINT CONTROL
                     IPLOT           0  PLOT CONTROL
                     QSCAL          0.  HYDROGRAPH PLOT SCALE

   IT          HYDROGRAPH TIME DATA
                      NMIN           5  MINUTES IN COMPUTATION INTERVAL
                     IDATE      1JAN99  STARTING DATE
                     ITIME        1200  STARTING TIME
                        NQ        2000  NUMBER OF HYDROGRAPH ORDINATES
                    NDDATE      8JAN99  ENDING DATE
                    NDTIME        1035  ENDING TIME
                     ICENT          19  CENTURY MARK

                COMPUTATION INTERVAL     .08 HOURS
                     TOTAL TIME BASE  166.58 HOURS

        ENGLISH UNITS
             DRAINAGE AREA          SQUARE MILES
             PRECIPITATION DEPTH    INCHES
             LENGTH, ELEVATION      FEET
             FLOW                   CUBIC FEET PER SECOND
             STORAGE VOLUME         ACRE-FEET
             SURFACE AREA           ACRES
             TEMPERATURE            DEGREES FAHRENHEIT

40 JD          INDEX STORM NO. 1
                      STRM        3.20  PRECIPITATION DEPTH
                      TRDA         .10  TRANSPOSITION DRAINAGE AREA

41 PI            PRECIPITATION PATTERN
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00       .00       .01       .01       .01       .01       .01       .01       .03
                    .03       .03       .05       .05       .05       .15       .15       .15       .03       .03
                    .03       .01       .01       .01       .01       .01       .01       .00       .00       .00
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00

44 JD          INDEX STORM NO. 2
                      STRM        3.18  PRECIPITATION DEPTH
                      TRDA         .50  TRANSPOSITION DRAINAGE AREA

45 PI            PRECIPITATION PATTERN
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
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```
                .00       .00       .00       .01       .01       .01       .01       .01       .01       .03
                .03       .03       .05       .05       .05       .15       .15       .15       .03       .03
                .03       .01       .01       .01       .01       .01       .01       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00

48 JD        INDEX STORM NO. 3
                STRM        3.12  PRECIPITATION DEPTH
                TRDA        2.80  TRANSPOSITION DRAINAGE AREA

49 PI          PRECIPITATION PATTERN
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .01       .01       .01       .01       .01       .01       .03
                .03       .03       .07       .07       .07       .08       .08       .08       .05       .05
                .05       .02       .02       .02       .01       .01       .01       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00

52 JD        INDEX STORM NO. 4
                STRM        2.95  PRECIPITATION DEPTH
                TRDA       16.00  TRANSPOSITION DRAINAGE AREA

53 PI          PRECIPITATION PATTERN
                .01       .01       .00       .00       .00       .00       .00       .00       .00       .01
                .01       .01       .00       .01       .00       .00       .00       .00       .00       .00
                .00       .00       .01       .00       .00       .00       .00       .01       .01       .01
                .01       .01       .01       .01       .01       .01       .02       .02       .02       .03
                .03       .03       .06       .06       .06       .07       .07       .07       .04       .04
                .04       .02       .02       .02       .01       .01       .01       .01       .01       .01
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00

56 JD        INDEX STORM NO. 5
                STRM        2.59  PRECIPITATION DEPTH
                TRDA       90.00  TRANSPOSITION DRAINAGE AREA

57 PI          PRECIPITATION PATTERN
                .01       .01       .01       .00       .00       .00       .01       .01       .01       .01
                .01       .01       .01       .01       .01       .01       .01       .01       .01       .01
                .01       .01       .01       .01       .01       .01       .01       .01       .01       .01
                .01       .01       .01       .01       .01       .01       .02       .02       .02       .03
                .03       .03       .05       .05       .05       .05       .05       .05       .04       .04
                .04       .02       .02       .02       .02       .02       .01       .01       .01       .01
                .01       .01       .01       .01       .01       .01       .01       .01       .01       .01
                .01       .01
1
                                                RUNOFF SUMMARY
                                        FLOW IN CUBIC FEET PER SECOND
                                      TIME IN HOURS,  AREA IN SQUARE MILES

                                          PEAK   TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN    MAXIMUM    TIME OF
        OPERATION        STATION          FLOW    PEAK                                           AREA     STAGE    MAX STAGE
+                                                            6-HOUR     24-HOUR     72-HOUR

        HYDROGRAPH AT
+                          S800           595.    4.25        74.         18.          6.        .43

        ROUTED TO
+                         RR800            61.    5.25        51.         18.          6.        .43

        ROUTED TO
+                        800CHL            61.    5.33        51.         18.          6.        .43

        HYDROGRAPH AT
+                          S810          1355.    4.42       225.         56.         19.       1.61

        ROUTED TO
+                         RR810           136.    5.75       122.         56.         19.       1.61

        ROUTED TO
+                        810CHL           136.    5.83       122.         56.         19.       1.61

        2 COMBINED AT
+                        ALL800           189.    5.67       165.         70.         23.       2.04

        HYDROGRAPH AT
+                            S1          1537.    4.33       238.         60.         20.       1.46

        HYDROGRAPH AT
+                            U1          1553.    4.33       239.         60.         20.       1.39

        HYDROGRAPH AT
+                            V1           707.    4.42       114.         29.         10.        .70

        HYDROGRAPH AT
+                            W1          2581.    4.42       533.        134.         45.       3.95

        ROUTED TO
+                          RRW1           322.    5.92       289.        134.         45.       3.95

        ROUTED TO
+                         W1-1W           320.    6.50       286.        134.         45.       3.95
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          HYDROGRAPH AT
+                      W2     1993.   4.33      317.      79.      26.    2.69

          2 COMBINED AT
+                      1W     1693.   4.33      492.     192.      64.    6.64

          HYDROGRAPH AT
+                     W2A      818.   4.33      120.      30.      10.     .77

          ROUTED TO
+                   RRW2A       87.   5.50       75.      30.      10.     .77

          ROUTED TO
+                  W2AX1I       87.   5.58       75.      30.      10.     .77

          HYDROGRAPH AT
+                      X1      818.   4.33      120.      30.      10.     .77

          ROUTED TO
+                    RRX1       94.   5.50       81.      30.      10.     .77

          ROUTED TO
+                  X1-X1I       94.   5.50       81.      30.      10.     .77

          2 COMBINED AT
+                    CX1I      173.   5.58      147.      55.      18.    1.54

          ROUTED TO
+                  X1I-1W      173.   5.67      147.      55.      18.    1.54

          HYDROGRAPH AT
+                      Y1     1029.   4.08       91.      23.       8.     .57

 *** NORMAL END OF HEC-1 ***
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1****************************************                    ****************************************
 *                                      *                    *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                    *    U.S. ARMY CORPS OF ENGINEERS      *
 *              JUN   1998              *                    *    HYDROLOGIC ENGINEERING CENTER     *
 *           VERSION 4.1                *                    *          609 SECOND STREET           *
 *                                      *                    *       DAVIS, CALIFORNIA 95616        *
 *  RUN DATE   19APR06  TIME  16:02:41  *                    *           (916) 756-1104             *
 *                                      *                    *                                      *
 ****************************************                    ****************************************

                                    X     X  XXXXXXX   XXXXX           X
                                    X     X  X        X     X         XX
                                    X     X  X        X                X
                                    XXXXXXX  XXXX     X        XXXXX   X
                                    X     X  X        X                X
                                    X     X  X        X     X          X
                                    X     X  XXXXXXX   XXXXX         XXX


THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                          HEC-1 INPUT                                          PAGE  1

      LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

        1           ID    HYDROLOGY FOR STEP 2 ALTERNATIVES FOR SUN VALLEY ADMP
        2           ID       - FRS NO. 2 & 3 SUBBAREA
        3           ID       - ALTERNATIVE B41 - BIG BASIN, LEVEED CORRIDOR,
        4           ID            alignments from Skyline Wash along west side of fan
        5           ID            and separate corridors for Sky ET fan
        6           ID
        7           ID   Alternative Description
        8           ID   The purpose of Alternative B is to capture the upstream flow at the
        9           ID   apex using online detention basins.  The presence of the detention basins
       10           ID   eliminates the downstream alluvial fan uncertainties by controlling the
       11           ID   flow from the apices to the outfall.  Alternative B4-1 is based on using a
       12           ID   relatively larger on-line detention basin at the apex accompanied by smaller
       13           ID   leveed channel sections in the down fan direction.  It is the first of three
       14           ID   corridor alignments considered as part of the Alternative B4 series.
       15           ID
       16           ID
       17           ID    JE FULLER/ HYDROLOGY & GEOMORPHOLOGY, INC.
       18           ID    JANUARY 2006
       19           ID
       20           ID    MODEL BASED ON S800 SERIES PORTIONS OF:
       21           ID
       22           ID        FCDMC
       23           ID        A4_EX24 - SVADMP - Area 4 Existing Conditions 100-yr 24-hr
       24           ID        Major Basin: 01
       25           ID        100 Year - Return Period
       26           ID        24 Hour Storm
       27           ID        Multiple Storms
       28           ID        Unit Hydrograph: S-Graph
       29           ID        10/04/2005
       30           ID
       31           ID
       32           ID    AND BASED ON PORTIONS OF:
       33           ID
       34           ID         WHITE TANK WASH FDS (ALPHA, 1996)
       35           ID
       36           IT       5  1JAN99    1200    2000
       37           IN      15
       38           IO       5
                    *DIAGRAM
                    *
       39           JD   4.198  0.1000
       40           PC   0.000   0.002   0.005   0.008   0.011   0.014   0.017   0.020   0.023   0.026
       41           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056   0.060
       42           PC   0.064   0.068   0.072   0.076   0.080   0.085   0.090   0.095   0.100   0.105
       43           PC   0.110   0.115   0.120   0.126   0.133   0.140   0.147   0.155   0.163   0.172
       44           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
       45           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
       46           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
       47           PC   0.913   0.918   0.922   0.926   0.930   0.934   0.938   0.942   0.946   0.950
       48           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977   0.980
       49           PC   0.983   0.986   0.989   0.992   0.995   0.998   1.000
       50           JD   3.990    10.0
       51           JD   3.780    30.0
                    *
1                                          HEC-1 INPUT                                          PAGE  2

      LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
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```
 52          KK    S800   BASIN
 53          KM        Compute runoff from subbasin 800
 54          BA   0.431
 55          LG    0.27    0.35    4.60    0.34       9
 56          UI      49     118     252     353     489     442     297     255     213     170
 57          UI     134     113      92      69      57      48      38      29      24      25
 58          UI      12       9      10       9      10       9      10       0       0       0
 59          UI       0       0       0       0       0       0       0       0       0       0
 60          UI       0       0       0       0       0       0       0       0       0       0
             *

 61          KK   RR800 STORAGE
 62          KM   PROPOSED DETENTION BASIN
 63          KM    ROUTE RUNOFF FROM S800 THROUGH PROPOSED DETENTION BASIN
 64          KM    STRUCTURE ID:RR800
 65          KM    DIMENSIONS: L=750ft, W=300ft, D=8ft, Sideslope (?H:1V)= 3,  Vol.= 29.7 ac-ft
 66          RS       1    STOR       0
 67          SV     0.0     1.9     3.8     7.8    11.9    16.1    20.5    25.0    29.7    34.4
 68          SE     0.0     0.5     1.0     2.0     3.0     4.0     5.0     6.0     7.0     8.0
 69          SQ     0.0    16.7    23.6    33.4    40.9    47.3    52.9    57.9    62.5    66.9
             *

 70          KK  800CHL   ROUTE
 71          KM   PROPOSED CHANNEL
 72          KM    ROUTE RR800 OUTFLOW TO FRS
 73          KM    STRUCTURE ID(s): 80010
 74          KM    Slope=(1129.3 - 1105.8) / 1366.3
 75          RS       3    FLOW      -1
 76          RC   0.045   0.045   0.045  1366.30.017151   104.0
 77          RX     0.0    12.0    12.0    12.0    24.0    24.0    24.0    36.0
 78          RY   104.0   100.0   100.0   100.0   100.0   100.0   100.0   104.0
             *

 79          KK    S810   BASIN
 80          KM        Compute runoff from subbasin 810
 81          BA   1.607
 82          LG    0.30    0.35    4.65    0.32       4
 83          UI     140     200     493     790     997    1196    1589    1066     843     750
 84          UI     668     569     489     397     336     309     256     202     176     155
 85          UI     130     106     102      68      68      69      46      27      27      27
 86          UI      26      27      27      27      27       0       0       0       0       0
 87          UI       0       0       0       0       0       0       0       0       0       0
             *

 88          KK   RR810 STORAGE
 89          KM   PROPOSED DETENTION BASIN
 90          KM    ROUTE RUNOFF FROM S810 THROUGH PROPOSED DETENTION BASIN
 91          KM    STRUCTURE ID:RR810
 92          KM    DIMENSIONS: L=1050ft, W=500ft, D=10ft, Sideslope (?H:1V)= 3,  Vol.= 93.6 ac-
 93          RS       1    STOR       0
 94          SV     0.0    19.4    39.6    60.6    71.3    82.3    93.6   105.0   116.6   128.4
 95          SE     0.0     2.0     4.0     6.0     7.0     8.0     9.0    10.0    11.0    12.0
 96          SQ     0.0    65.5    92.7   113.5   122.6   131.0   139.0   146.5   153.6   160.5
             *
1                                          HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 97          KK  810CHL   ROUTE
 98          KM   PROPOSED CHANNEL
 99          KM    ROUTE RR810 OUTFLOW TO FRS
100          KM    STRUCTURE ID(s): 81010
101          KM    Slope=(1133.1 - 1105.8) / 2054.8
102          RS       3    FLOW      -1
103          RC   0.045   0.045   0.045  2054.80.013242   104.0
104          RX     0.0    12.0    12.0    12.0    44.0    44.0    44.0    56.0
105          RY   104.0   100.0   100.0   100.0   100.0   100.0   100.0   104.0
             *

106          KK  ALL800 COMBINE
107          KM        combination of all 800 series hydrographs AT FRS NO 2.
108          HC       2
             *
             * THE FOLLOWING PORTIONS ARE FROM THE WHITE TANK WASH FDS (ALPHA, 1996)
             *
             * White Tanks Wash Flood Insurance Study - 7-July-93 - JRB
             * ALPHA Engineering Group Inc. - 5 minute interval - 24 Hour Storm
             *

109          KK      S1   BASIN
110          KM   BASIN S1
111          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
112          KM    L=      2.4  Lca=       .7   S=  140.0  Kn= .050  LAG=  33.0
113          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
114          BA    1.46
115          LG     .19     .35    3.77     .31    7.00
116          UI    149.    284.    668.    981.   1216.   1674.   1082.    874.    754.    644.
117          UI    540.    422.    356.    320.    240.    191.    166.    138.    114.     92.
118          UI     73.     73.     54.     29.     29.     29.     29.     29.     29.     29.
119          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
120          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
             *
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 121          KK      U1   BASIN
 122          KM   BASIN U1
 123          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 124          KM    L=      2.1  Lca=      1.1   S=  377.0  Kn= .050  LAG=  32.0
 125          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 126          BA    1.39
 127          LG     .26     .37    4.74     .22    8.00
 128          UI    147.    294.    688.    987.   1245.   1598.   1002.    831.    714.    602.
 129          UI    493.    381.    338.    278.    212.    177.    159.    112.    107.     72.
 130          UI     72.     67.     28.     28.     28.     28.     28.     28.     28.      0.
 131          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
 132          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *
1                                          HEC-1 INPUT                                          PAGE  4

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 133          KK      V1   BASIN
 134          KM   BASIN V1
 135          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 136          KM    L=      2.7  Lca=      1.6   S=  389.0  Kn= .050  LAG=  40.0
 137          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 138          BA     .70
 139          LG     .26     .35    4.24     .41   13.00
 140          UI     59.     76.    200.    320.    406.    481.    660.    503.    372.    329.
 141          UI    290.    254.    221.    183.    150.    138.    123.     97.     77.     70.
 142          UI     64.     49.     45.     39.     29.     29.     29.     18.     11.     11.
 143          UI     11.     11.     11.     11.     11.     11.      0.      0.      0.      0.
              *

 144          KK      W1   BASIN
 145          KM   BASIN W1
 146          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 147          KM    L=      3.3  Lca=      1.6   S=  522.0  Kn= .050  LAG=  42.0
 148          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 149          BA    3.95
 150          LG     .30     .35    4.24     .40   15.00
 151          UI    317.    357.   1030.   1615.   2095.   2456.   3182.   3308.   2176.   1862.
 152          UI   1658.   1480.   1292.   1120.    914.    790.    722.    635.    518.    405.
 153          UI    375.    347.    270.    243.    223.    155.    155.    155.    129.     61.
 154          UI     61.     61.     61.     61.     61.     61.     61.     61.      0.      0.
              *

 155          KK    RRW1 STORAGE
 156          KM   PROPOSED DETENTION BASIN
 157          KM    ROUTE RUNOFF FROM SUBBASIN W1 THROUGH PROPOSED DETENTION BASIN
 158          KM    outlet pipe of 5 ft diameter assumed
 159          KM    STRUCTURE ID:RRW1
 160          KM    DIMENSIONS: L=1600ft, W=800ft, D=10ft, Sideslope (?H:1V)= 3,  Vol.= 231.2 ac
 161          RS       1    STOR       0
 162          SV     0.0    24.4    49.2    99.6   151.3   177.6   204.3   231.2   258.5   286.1
 163          SE     0.0     1.0     2.0     4.0     6.0     7.0     8.0     9.0    10.0    11.0
 164          SQ     0.0   114.4   161.8   228.8   280.2   302.7   323.6   343.2   361.8   379.4
              *

 165          KK   W1-1W   ROUTE
 166          KM   PROPOSED CHANNEL
 167          KM    ROUTE OUTFLOW FROM RRW1 TO FRS NO. 3 VIA WEST CHANNEL ALIGNMENT THRU W2
 168          KM    STRUCTURE ID(s): W120
 169          KM    Slope=(1361.3 - 1166.3) / 9260.3
 170          RS       4    FLOW      -1
 171          RC   0.045   0.045   0.045  9260.30.021066   104.0
 172          RX     0.0    12.0    12.0    12.0   272.0   272.0   272.0   284.0
 173          RY   104.0   100.0   100.0   100.0   100.0   100.0   100.0   104.0
              *
1                                          HEC-1 INPUT                                          PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 174          KK      W2   BASIN
 175          KM   BASIN W2
 176          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 177          KM    L=      2.3  Lca=      1.1   S=  422.0  Kn= .050  LAG=  33.0
 178          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 179          BA    2.69
 180          LG     .27     .35    4.19     .40    3.00
 181          UI    274.    522.   1229.   1805.   2237.   3080.   1992.   1608.   1388.   1185.
 182          UI    993.    777.    656.    588.    442.    351.    306.    255.    210.    170.
 183          UI    134.    134.     99.     53.     53.     53.     53.     53.     53.     53.
 184          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *

 185          KK     1W COMBINE
 186          KM     Combining W1 & W2
 187          HC       2
              *

 188          KK     W2A   BASIN
 189          KM   ASSUMED SAME AS BASIN X1 - USED TO REPRESENT HILLSLOPE WATERSHED CONTRIBUTING
 190          KM   TO EAST SIDE OF SKYLINE FAN
 191          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 192          KM    L=      2.3  Lca=      1.4   S=  457.0  Kn= .050  LAG=  35.0
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 193          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 194          BA     .77
 195          LG     .28     .35    4.30     .43   12.00
 196          UI     74.    129.    301.    465.    569.    776.    674.    466.    404.    351.
 197          UI    300.    248.    196.    175.    151.    117.     95.     82.     70.     57.
 198          UI     50.     36.     36.     35.     14.     14.     14.     14.     14.     14.
 199          UI     14.     14.      0.      0.      0.      0.      0.      0.      0.      0.
              *

 200          KK   RRW2A STORAGE
 201          KM   PROPOSED DETENTION BASIN
 202          KM    ROUTE RUNOFF FROM W2A THROUGH PROPOSED DETENTION BASIN AT INSET FAN ON EAST
 203          KM    outlet pipe of 2.5 ft diameter assumed
 204          KM    STRUCTURE ID:RRW2A
 205          KM    DIMENSIONS: L=900ft, W=400ft, D=8ft, Sideslope (?H:1V)= 3,  Vol.= 49 ac-ft
 206          RS       1    STOR       0
 207          SV     0.0     3.2     6.5    13.2    20.0    27.0    34.1    41.5    49.0    56.7
 208          SE     0.0     0.5     1.0     2.0     3.0     4.0     5.0     6.0     7.0     8.0
 209          SQ     0.0    24.1    34.0    48.1    59.0    68.1    76.1    83.4    90.0    96.3
              *

 210          KK  W2AX1I   ROUTE
 211          KM   PROPOSED CHANNEL
 212          KM    ROUTE OUTFLOW FROM RRW2A TO CONFLUENCE WITH OUTFLOW FROM RRX1 IN PROPOSED CH
 213          KM    STRUCTURE ID(s): W140
 214          KM    Slope=(1221.6 - 1184.0) / 2235.9
 215          RS       1    FLOW      -1
 216          RC   0.045   0.045   0.045  2235.90.016851   104.0
 217          RX     0.0    12.0    12.0    12.0    30.0    30.0    30.0    42.0
 218          RY   104.0   100.0   100.0   100.0   100.0   100.0   100.0   104.0
              *
1                                          HEC-1 INPUT                                          PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 219          KK      X1   BASIN
 220          KM   BASIN X1
 221          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 222          KM    L=      2.3  Lca=      1.4   S=  457.0  Kn= .050  LAG=  35.0
 223          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 224          BA     .77
 225          LG     .28     .35    4.30     .43   12.00
 226          UI     74.    129.    301.    465.    569.    776.    674.    466.    404.    351.
 227          UI    300.    248.    196.    175.    151.    117.     95.     82.     70.     57.
 228          UI     50.     36.     36.     35.     14.     14.     14.     14.     14.     14.
 229          UI     14.     14.      0.      0.      0.      0.      0.      0.      0.      0.
              *

 230          KK    RRX1 STORAGE
 231          KM   PROPOSED DETENTION BASIN
 232          KM    ROUTE RUNOFF FROM X1 THROUGH PROPOSED DETENTION BASIN
 233          KM    STRUCTURE ID:RRX1
 234          KM    DIMENSIONS: L=800ft, W=400ft, D=9ft, Sideslope (?H:1V)= 3,  Vol.= 47.3 ac-ft
 235          RS       1    STOR       0
 236          SV     0.0    10.9    16.6    22.4    28.4    34.5    40.8    47.3    53.9    60.6
 237          SE     0.0     2.0     3.0     4.0     5.0     6.0     7.0     8.0     9.0    10.0
 238          SQ     0.0    48.1    59.0    68.1    76.1    83.4    90.0    96.3   102.1   107.6
              *

 239          KK  X1-X1I   ROUTE
 240          KM   PROPOSED CHANNEL
 241          KM    ROUTE OUTFLOW FROM RRX1 TO CONFLUENCE WITH PROPOSED NEW CHANNEL FROM RRW2A
 242          KM    STRUCTURE ID(s): X110
 243          KM    Slope=(1198.1 - 1184.0) /  861.7
 244          RS       1    FLOW      -1
 245          RC   0.045   0.045   0.045   861.7 0.01639   104.0
 246          RX     0.0    12.0    12.0    12.0    30.0    30.0    30.0    42.0
 247          RY   104.0   100.0   100.0   100.0   100.0   100.0   100.0   104.0
              *

 248          KK    CX1I COMBINE
 249          KM    COMBINE ROUTED FLOW FROM RRX1 AND RRW2A
 250          HC       2
              *

 251          KK  X1I-1W   ROUTE
 252          KM   PROPOSED CHANNEL
 253          KM    ROUTE OUTFLOW FROM RRX1 TO FRS NO. 3 VIA PROPOSED NEW CHANNEL
 254          KM    STRUCTURE ID(s): W150
 255          KM    Slope=(1184.0 - 1152.1) / 1648.8
 256          RS       1    FLOW      -1
 257          RC   0.045   0.045   0.045  1648.80.019313   104.0
 258          RX     0.0    12.0    12.0    12.0    48.0    48.0    48.0    60.0
 259          RY   104.0   100.0   100.0   100.0   100.0   100.0   100.0   104.0
              *
1                                          HEC-1 INPUT                                          PAGE  7

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 260          KK      Y1   BASIN
 261          KM   BASIN Y1
 262          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 263          KM    L=      1.3  Lca=       .5   S=  789.0  Kn= .050  LAG=  17.0
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          264          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
          265          BA     .57
          266          LG     .38     .35    4.24     .42   12.00
          267          UI    160.    607.   1074.    802.    556.    393.    270.    184.    131.     88.
          268          UI     57.     43.     22.     22.     22.      0.      0.      0.      0.      0.
          269          ZZ
1
                 SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

    52        S800
                V
                V
    61       RR800
                V
                V
    70      800CHL
                .
                .
    79           .        S810
                 .           V
                 .           V
    88           .       RR810
                 .           V
                 .           V
    97           .      810CHL
                 .           .
                 .           .
   106      ALL800............
                 .
                 .
   109           .          S1
                 .           .
                 .           .
   121           .           .          U1
                 .           .           .
                 .           .           .
   133           .           .           .          V1
                 .           .           .           .
                 .           .           .           .
   144           .           .           .           .          W1
                 .           .           .           .           V
                 .           .           .           .           V
   155           .           .           .           .        RRW1
                 .           .           .           .           V
                 .           .           .           .           V
   165           .           .           .           .       W1-1W
                 .           .           .           .           .
                 .           .           .           .           .
   174           .           .           .           .           .          W2
                 .           .           .           .           .           .
                 .           .           .           .           .           .
   185           .           .           .           .          1W............
                 .           .           .           .           .
                 .           .           .           .           .
   188           .           .           .           .           .         W2A
                 .           .           .           .           .           V
                 .           .           .           .           .           V
   200           .           .           .           .           .       RRW2A
                 .           .           .           .           .           V
                 .           .           .           .           .           V
   210           .           .           .           .           .      W2AX1I
                 .           .           .           .           .           .
                 .           .           .           .           .           .
   219           .           .           .           .           .           .          X1
                 .           .           .           .           .           .           V
                 .           .           .           .           .           .           V
   230           .           .           .           .           .           .        RRX1
                 .           .           .           .           .           .           V
                 .           .           .           .           .           .           V
   239           .           .           .           .           .           .      X1-X1I
                 .           .           .           .           .           .           .
                 .           .           .           .           .           .           .
   248           .           .           .           .           .        CX1I............
                 .           .           .           .           .           V
                 .           .           .           .           .           V
   251           .           .           .           .           .      X1I-1W
                 .           .           .           .           .           .
                 .           .           .           .           .           .
   260           .           .           .           .           .           .          Y1

 (***) RUNOFF ALSO COMPUTED AT THIS LOCATION
1*****************************************                                    *****************************************
 *                                       *                                    *                                       *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *                                    *   U.S. ARMY CORPS OF ENGINEERS        *
 *              JUN   1998               *                                    *   HYDROLOGIC ENGINEERING CENTER       *
 *            VERSION 4.1                *                                    *         609 SECOND STREET             *
 *                                       *                                    *      DAVIS, CALIFORNIA 95616          *
 *  RUN DATE   19APR06  TIME  16:02:41   *                                    *          (916) 756-1104               *
 *                                       *                                    *                                       *
 *****************************************                                    *****************************************
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HYDROLOGY FOR STEP 2 ALTERNATIVES FOR SUN VALLEY ADMP
   - FRS NO. 2 & 3 SUBBAREA
   - ALTERNATIVE B41 - BIG BASIN, LEVEED CORRIDOR,
       alignments from Skyline Wash along west side of fan
       and separate corridors for Sky ET fan

Alternative Description
The purpose of Alternative B is to capture the upstream flow at the
apex using online detention basins.  The presence of the detention basins
eliminates the downstream alluvial fan uncertainties by controlling the
flow from the apices to the outfall.  Alternative B4-1 is based on using a
relatively larger on-line detention basin at the apex accompanied by smaller
leveed channel sections in the down fan direction.  It is the first of three
corridor alignments considered as part of the Alternative B4 series.


JE FULLER/ HYDROLOGY & GEOMORPHOLOGY, INC.
JANUARY 2006

MODEL BASED ON S800 SERIES PORTIONS OF:

    FCDMC
    A4_EX24 - SVADMP - Area 4 Existing Conditions 100-yr 24-hr
    Major Basin: 01
    100 Year - Return Period
    24 Hour Storm
    Multiple Storms
    Unit Hydrograph: S-Graph
    10/04/2005


AND BASED ON PORTIONS OF:

     WHITE TANK WASH FDS (ALPHA, 1996)


38 IO          OUTPUT CONTROL VARIABLES
                     IPRNT           5  PRINT CONTROL
                     IPLOT           0  PLOT CONTROL
                     QSCAL          0.  HYDROGRAPH PLOT SCALE

   IT          HYDROGRAPH TIME DATA
                      NMIN           5  MINUTES IN COMPUTATION INTERVAL
                     IDATE      1JAN99  STARTING DATE
                     ITIME        1200  STARTING TIME
                        NQ        2000  NUMBER OF HYDROGRAPH ORDINATES
                    NDDATE      8JAN99  ENDING DATE
                    NDTIME        1035  ENDING TIME
                     ICENT          19  CENTURY MARK

               COMPUTATION INTERVAL     .08 HOURS
                    TOTAL TIME BASE  166.58 HOURS

        ENGLISH UNITS
             DRAINAGE AREA          SQUARE MILES
             PRECIPITATION DEPTH    INCHES
             LENGTH, ELEVATION      FEET
             FLOW                   CUBIC FEET PER SECOND
             STORAGE VOLUME         ACRE-FEET
             SURFACE AREA           ACRES
             TEMPERATURE            DEGREES FAHRENHEIT

39 JD          INDEX STORM NO. 1
                      STRM        4.20  PRECIPITATION DEPTH
                      TRDA         .10  TRANSPOSITION DRAINAGE AREA

40 PI            PRECIPITATION PATTERN
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
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50 JD INDEX STORM NO. 2
STRM 3.99 PRECIPITATION DEPTH
TRDA 10.00 TRANSPOSITION DRAINAGE AREA

0 PI PRECIPITATION PATTERN

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.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
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51 JD INDEX STORM NO. 3
STRM 3.78 PRECIPITATION DEPTH
TRDA 30.00 TRANSPOSITION DRAINAGE AREA

0 PI PRECIPITATION PATTERN

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.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
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1

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	S800	474.	12.25	61.	16.	5.	.43		
+	ROUTED TO	RR800	55.	13.25	46.	16.	5.	.43		
+	ROUTED TO	800CHL	55.	13.25	46.	16.	5.	.43		
+	HYDROGRAPH AT	S810	1387.	12.33	209.	54.	18.	1.61		

+	ROUTED TO	RR810	132.	13.67	118.	53.	18.	1.61
+	ROUTED TO	810CHL	132.	13.75	118.	53.	18.	1.61
+	2 COMBINED AT	ALL800	185.	13.58	162.	69.	23.	2.04
+	HYDROGRAPH AT	S1	1520.	12.33	213.	56.	19.	1.46
+	HYDROGRAPH AT	U1	1540.	12.25	214.	57.	19.	1.39
+	HYDROGRAPH AT	V1	599.	12.42	99.	28.	9.	.70
+	HYDROGRAPH AT	W1	3228.	12.42	562.	159.	53.	3.95
+	ROUTED TO	RRW1	331.	13.92	302.	154.	53.	3.95
+	ROUTED TO	W1-1W	330.	14.50	299.	154.	53.	3.95
+	HYDROGRAPH AT	W2	2472.	12.33	325.	84.	28.	2.69
+	2 COMBINED AT	1W	2476.	12.33	567.	235.	80.	6.64
+	HYDROGRAPH AT	W2A	714.	12.33	106.	29.	10.	.77
+	ROUTED TO	RRW2A	81.	13.50	70.	29.	10.	.77
+	ROUTED TO	W2AX1I	81.	13.58	70.	29.	10.	.77
+	HYDROGRAPH AT	X1	714.	12.33	106.	29.	10.	.77
+	ROUTED TO	RRX1	88.	13.42	75.	29.	10.	.77
+	ROUTED TO	X1-X1I	88.	13.50	75.	29.	10.	.77
+	2 COMBINED AT	CX1I	168.	13.50	144.	58.	19.	1.54
+	ROUTED TO	X1I-1W	168.	13.58	144.	58.	19.	1.54
+	HYDROGRAPH AT	Y1	848.	12.08	79.	22.	7.	.57

*** NORMAL END OF HEC-1 ***

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1****************************************                                    ****************************************
 *                                      *                                    *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                    *   U.S. ARMY CORPS OF ENGINEERS       *
 *              JUN   1998              *                                    *   HYDROLOGIC ENGINEERING CENTER      *
 *           VERSION 4.1                *                                    *         609 SECOND STREET            *
 *                                      *                                    *      DAVIS, CALIFORNIA 95616         *
 * RUN DATE   19APR06  TIME  16:07:31   *                                    *          (916) 756-1104              *
 *                                      *                                    *                                      *
 ****************************************                                    ****************************************

                                        X     X  XXXXXXX   XXXXX           X
                                        X     X  X        X     X         XX
                                        X     X  X        X                X
                                        XXXXXXX  XXXX     X        XXXXX   X
                                        X     X  X        X                X
                                        X     X  X        X     X          X
                                        X     X  XXXXXXX   XXXXX         XXX

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                HEC-1 INPUT                                                    PAGE  1

      LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

        1           ID    HYDROLOGY FOR STEP 2 ALTERNATIVES FOR SUN VALLEY ADMP
        2           ID       - FRS NO. 2 & 3 SUBBAREA
        3           ID       - ALTERNATIVE B42 - BIG BASIN, LEVEED CORRIDOR
        4           ID             - ALIGNMENT ALONG EAST SIDE OF SKYLINE FAN
        5           ID
        6           ID   Alternative Description
        7           ID   The purpose of Alternative B is to capture the upstream flow at the
        8           ID   apex using online detention basins.  The presence of the detention
        9           ID   basins eliminates the downstream alluvial fan uncertainties by controlling
       10           ID   the flow from the apices to the outfall.  Alternative B4-2 is based on
       11           ID   using a relatively larger on-line detention basin at the apex accompanied
       12           ID   by smaller leveed channel sections in the down fan direction.  It is the
       13           ID   second of three corridor alignments considered as part of the Alternative B4
       14           ID   series.
       15           ID
       16           ID
       17           ID    JE FULLER/ HYDROLOGY & GEOMORPHOLOGY, INC.
       18           ID    JANUARY 2006
       19           ID
       20           ID    MODEL BASED ON S800 SERIES PORTIONS OF:
       21           ID
       22           ID        A4_EX6 - SVADMP - Area 4 Existing Conditions 100-yr 6-hr
       23           ID        Major Basin: 01
       24           ID        100 Year - Return Period
       25           ID        6 Hour Storm
       26           ID        Multiple Storms
       27           ID        Unit Hydrograph: S-Graph
       28           ID        10/04/2005
       29           ID
       30           ID
       31           ID    AND BASED ON PORTIONS OF:
       32           ID
       33           ID         WHITE TANK WASH FDS (ALPHA, 1996)
       34           ID
       35           IT       5  1JAN99    1200    2000
       36           IN      15
       37           IO       5
                   *DIAGRAM
                   *
       38           JD   3.196  0.1000
       39           PC   0.000   0.008   0.016   0.025   0.033   0.041   0.050   0.058   0.066   0.074
       40           PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931   0.950
       41           PC   0.962   0.972   0.983   0.991   1.000
       42           JD   3.181  0.5000
       43           PC   0.000   0.008   0.016   0.025   0.033   0.041   0.050   0.058   0.066   0.074
       44           PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931   0.950
       45           PC   0.962   0.972   0.983   0.991   1.000
       46           JD   3.120     2.8
       47           PC   0.000   0.009   0.016   0.025   0.034   0.042   0.051   0.059   0.068   0.077
       48           PC   0.088   0.101   0.121   0.164   0.253   0.451   0.694   0.836   0.900   0.938
       49           PC   0.950   0.963   0.975   0.988   1.000
       50           JD   2.950    16.0
       51           PC   0.000   0.015   0.020   0.030   0.048   0.063   0.076   0.090   0.105   0.119
       52           PC   0.135   0.152   0.175   0.222   0.304   0.472   0.670   0.796   0.868   0.912
       53           PC   0.946   0.960   0.973   0.987   1.000
1                                                HEC-1 INPUT                                                    PAGE  2
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  54          JD   2.592    90.0
  55          PC   0.000   0.021   0.035   0.051   0.071   0.087   0.105   0.125   0.143   0.160
  56          PC   0.179   0.201   0.232   0.281   0.364   0.500   0.658   0.773   0.841   0.888
  57          PC   0.927   0.945   0.964   0.982   1.000
              *

  58          KK    S800   BASIN
  59          KM        Compute runoff from subbasin 800
  60          BA   0.431
  61          LG    0.27    0.35    4.60    0.34       9
  62          UI      49     118     252     353     489     442     297     255     213     170
  63          UI     134     113      92      69      57      48      38      29      24      25
  64          UI      12       9      10       9      10       9      10       0       0       0
  65          UI       0       0       0       0       0       0       0       0       0       0
  66          UI       0       0       0       0       0       0       0       0       0       0
              *

  67          KK   RR800 STORAGE
  68          KM   PROPOSED DETENTION BASIN
  69          KM    ROUTE RUNOFF FROM S800 THROUGH PROPOSED DETENTION BASIN
  70          KM    STRUCTURE ID:RR800
  71          KM    DIMENSIONS: L=750ft, W=300ft, D=8ft, Sideslope (?H:1V)= 3,  Vol.= 29.7 ac-ft
  72          RS       1    STOR       0
  73          SV     0.0     1.9     3.8     5.8     7.8    11.9    16.1    20.5    25.0    34.4
  74          SE     0.0     0.5     1.0     1.5     2.0     3.0     4.0     5.0     6.0     8.0
  75          SQ     0.0    16.7    23.6    28.9    33.4    40.9    47.3    52.9    57.9    66.9
              *

  76          KK  800CHL   ROUTE
  77          KM   PROPOSED CHANNEL
  78          KM    ROUTE RR800 OUTFLOW TO FRS
  79          KM    STRUCTURE ID(s): 80010
  80          KM    Slope=(1129.3 - 1105.8) / 1366.3
  81          RS       3    FLOW      -1
  82          RC   0.045   0.035   0.045  1366.30.017151   104.0
  83          RX     0.0    12.0    12.0    12.0    24.0    24.0    24.0    36.0
  84          RY   104.0   100.0   100.0   100.0   100.0   100.0   100.0   104.0
              *

  85          KK    S810   BASIN
  86          KM        Compute runoff from subbasin 810
  87          BA   1.607
  88          LG    0.30    0.35    4.65    0.32       4
  89          UI     140     200     493     790     997    1196    1589    1066     843     750
  90          UI     668     569     489     397     336     309     256     202     176     155
  91          UI     130     106     102      68      68      69      46      27      27      27
  92          UI      26      27      27      27      27       0       0       0       0       0
  93          UI       0       0       0       0       0       0       0       0       0       0
              *
1                                          HEC-1 INPUT                                          PAGE  3

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  94          KK   RR810 STORAGE
  95          KM   PROPOSED DETENTION BASIN
  96          KM    ROUTE RUNOFF FROM S810 THROUGH PROPOSED DETENTION BASIN
  97          KM    STRUCTURE ID:RR810
  98          KM    DIMENSIONS: L=1050ft, W=500ft, D=10ft, Sideslope (?H:1V)= 3,  Vol.= 93.6 ac-
  99          RS       1    STOR       0
 100          SV     0.0    19.4    39.6    60.6    71.3    82.3    93.6   105.0   116.6   128.4
 101          SE     0.0     2.0     4.0     6.0     7.0     8.0     9.0    10.0    11.0    12.0
 102          SQ     0.0    65.5    92.7   113.5   122.6   131.0   139.0   146.5   153.6   160.5
              *

 103          KK  810CHL   ROUTE
 104          KM   PROPOSED CHANNEL
 105          KM    ROUTE RR810 OUTFLOW TO FRS
 106          KM    STRUCTURE ID(s): 81010
 107          KM    Slope=(1133.1 - 1105.8) / 2054.8
 108          RS       3    FLOW      -1
 109          RC   0.045   0.035   0.045  2054.80.013242   104.0
 110          RX     0.0    12.0    12.0    12.0    44.0    44.0    44.0    56.0
 111          RY   104.0   100.0   100.0   100.0   100.0   100.0   100.0   104.0
              *

 112          KK  ALL800 COMBINE
 113          KM        combination of all 800 series hydrographs AT FRS NO 2.
 114          HC       2
              *
              * THE FOLLOWING PORTIONS ARE FROM THE WHITE TANK WASH FDS (ALPHA, 1996)
              *
              * White Tanks Wash Flood Insurance Study - 7-July-93 - JRB
              * ALPHA Engineering Group Inc. - 5 minute interval - 24 Hour Storm
              *

 115          KK      S1   BASIN
 116          KM   BASIN S1
 117          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 118          KM    L=      2.4  Lca=       .7   S=  140.0  Kn= .050  LAG=  33.0
 119          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 120          BA    1.46
 121          LG     .19     .35    3.77     .31    7.00
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 122          UI    149.    284.    668.    981.   1216.   1674.   1082.    874.    754.    644.
 123          UI    540.    422.    356.    320.    240.    191.    166.    138.    114.     92.
 124          UI     73.     73.     54.     29.     29.     29.     29.     29.     29.     29.
 125          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
 126          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *

 127          KK      U1   BASIN
 128          KM    BASIN U1
 129          KM     THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 130          KM     L=      2.1  Lca=      1.1   S=  377.0  Kn= .050  LAG=  32.0
 131          KM     PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 132          BA     1.39
 133          LG      .26     .37    4.74     .22    8.00
 134          UI    147.    294.    688.    987.   1245.   1598.   1002.    831.    714.    602.
1                                          HEC-1 INPUT                                          PAGE  4

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 135          UI    493.    381.    338.    278.    212.    177.    159.    112.    107.     72.
 136          UI     72.     67.     28.     28.     28.     28.     28.     28.     28.      0.
 137          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
 138          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *

 139          KK      V1   BASIN
 140          KM    BASIN V1
 141          KM     THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 142          KM     L=      2.7  Lca=      1.6   S=  389.0  Kn= .050  LAG=  40.0
 143          KM     PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 144          BA      .70
 145          LG      .26     .35    4.24     .41   13.00
 146          UI     59.     76.    200.    320.    406.    481.    660.    503.    372.    329.
 147          UI    290.    254.    221.    183.    150.    138.    123.     97.     77.     70.
 148          UI     64.     49.     45.     39.     29.     29.     29.     18.     11.     11.
 149          UI     11.     11.     11.     11.     11.     11.      0.      0.      0.      0.
              *

 150          KK      W1   BASIN
 151          KM    BASIN W1
 152          KM     THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 153          KM     L=      3.3  Lca=      1.6   S=  522.0  Kn= .050  LAG=  42.0
 154          KM     PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 155          BA     3.95
 156          LG      .30     .35    4.24     .40   15.00
 157          UI    317.    357.   1030.   1615.   2095.   2456.   3182.   3308.   2176.   1862.
 158          UI   1658.   1480.   1292.   1120.    914.    790.    722.    635.    518.    405.
 159          UI    375.    347.    270.    243.    223.    155.    155.    155.    129.     61.
 160          UI     61.     61.     61.     61.     61.     61.     61.     61.      0.      0.
              *

 161          KK     RRW1 STORAGE
 162          KM    PROPOSED DETENTION BASIN
 163          KM     ROUTE RUNOFF FROM SUBBASIN W1 THROUGH PROPOSED DETENTION BASIN
 164          KM     STRUCTURE ID:RRW1
 165          KM     DIMENSIONS: L=1600ft, W=800ft, D=10ft, Sideslope (?H:1V)= 3,  Vol.= 231.2 ac
 166          RS       1    STOR       0
 167          SV     0.0    49.2    99.6   151.3   177.6   204.3   231.2   258.5   286.1   314.0
 168          SE     0.0     2.0     4.0     6.0     7.0     8.0     9.0    10.0    11.0    12.0
 169          SQ     0.0   161.8   228.8   280.2   302.7   323.6   343.2   361.8   379.4   396.3
              *

 170          KK   W1-1W   ROUTE
 171          KM    PROPOSED CHANNEL
 172          KM     ROUTE OUTFLOW FROM RRW1 VIA EAST CHANNEL ALIGNMENT THRU W2 TO INSET FAN APEX
 173          KM     STRUCTURE ID(s): W130, W135
 174          KM     Slope=(1361.3 - 1221.6) / 7444.4
 175          RS       3    FLOW      -1
 176          RC   0.045   0.045   0.045  7444.40.018766   104.0
 177          RX     0.0    12.0    12.0    12.0   192.0   192.0   192.0   204.0
 178          RY   104.0   100.0   100.0   100.0   100.0   100.0   100.0   104.0
              *
1                                          HEC-1 INPUT                                          PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 179          KK     W2A   BASIN
 180          KM    ASSUMED SAME AS BASIN X1 - USED TO REPRESENT HILLSLOPE WATERSHED CONTRIBUTING
 181          KM    TO EAST SIDE OF SKYLINE FAN
 182          KM     THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 183          KM     L=      2.3  Lca=      1.4   S=  457.0  Kn= .050  LAG=  35.0
 184          KM     PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 185          BA      .77
 186          LG      .28     .35    4.30     .43   12.00
 187          UI     74.    129.    301.    465.    569.    776.    674.    466.    404.    351.
 188          UI    300.    248.    196.    175.    151.    117.     95.     82.     70.     57.
 189          UI     50.     36.     36.     35.     14.     14.     14.     14.     14.     14.
 190          UI     14.     14.      0.      0.      0.      0.      0.      0.      0.      0.
              *

 191          KK    CW2A COMBINE
 192          KM     COMBINE RUNOFF FROM HILLSLOPE WATERSHED WITH ROUTED FLOW FROM SKYLINE FAN AP
 193          HC       2
              *
```

```
KK   RRW2A STORAGE
KM   PROPOSED DETENTION BASIN
KM    ROUTE COMBINED FLOW THROUGH PROPOSED DETENTION BASIN AT INSET FAN ON EAST SI
KM    outlet pipe of 5 ft diameter assumed
KM    STRUCTURE ID:RRW2A
KM    DIMENSIONS: L=700ft, W=400ft, D=8ft, Sideslope (?H:1V)= 3,  Vol.= 37.8 ac-ft
RS       1    STOR       0
SV     0.0    10.1    20.7    31.9    43.7    49.9    56.1    62.5    69.1    75.8
SE     0.0     2.0     4.0     6.0     8.0     9.0    10.0    11.0    12.0    13.0
SQ     0.0   192.5   272.3   333.5   385.1   408.4   430.5   451.5   471.6   490.9
*

KK  W2AX1I   ROUTE
KM   PROPOSED CHANNEL
KM    ROUTE OUTFLOW FROM RRW2A TO CONFLUENCE WITH OUTFLOW FROM RRX1 IN PROPOSED CH
KM    STRUCTURE ID(s): W140
KM    Slope=(1221.6 - 1184.0) / 2235.9
RS       1    FLOW      -1
RC   0.045   0.045   0.045  2235.90.016851   104.0
RX     0.0    12.0    12.0    12.0    36.0    36.0    36.0    48.0
RY   104.0   100.0   100.0   100.0   100.0   100.0   100.0   104.0
*

KK      X1   BASIN
KM   BASIN X1
KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
KM    L=      2.3  Lca=      1.4   S=  457.0  Kn= .050  LAG=  35.0
KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
BA     .77
LG     .28     .35    4.30     .43   12.00
UI     74.    129.    301.    465.    569.    776.    674.    466.    404.    351.
UI    300.    248.    196.    175.    151.    117.     95.     82.     70.     57.
UI     50.     36.     36.     35.     14.     14.     14.     14.     14.     14.
UI     14.     14.      0.      0.      0.      0.      0.      0.      0.      0.
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1 HEC-1 INPUT PAGE 6

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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

KK    RRX1 STORAGE
KM   PROPOSED DETENTION BASIN
KM    ROUTE RUNOFF FROM X1 THROUGH PROPOSED DETENTION BASIN
KM    STRUCTURE ID:RRX1
KM    DIMENSIONS: L=800ft, W=400ft, D=9ft, Sideslope (?H:1V)= 3,  Vol.= 47.3 ac-ft
RS       1    STOR       0
SV     0.0     5.4    16.6    22.4    28.4    34.5    40.8    47.3    53.9    60.6
SE     0.0     1.0     3.0     4.0     5.0     6.0     7.0     8.0     9.0    10.0
SQ     0.0    34.0    59.0    68.1    76.1    83.4    90.0    96.3   102.1   107.6
*

KK  X1-X1I   ROUTE
KM   PROPOSED CHANNEL
KM    ROUTE OUTFLOW FROM RRX1 TO CONFLUENCE WITH PROPOSED NEW CHANNEL FROM RRW2A
KM    STRUCTURE ID(s): X110
KM    Slope=(1198.1 - 1184.0) /  861.7
RS       1    FLOW      -1
RC   0.045   0.045   0.045   861.7 0.01639   104.0
RX     0.0    12.0    12.0    12.0    32.0    32.0    32.0    44.0
RY   104.0   100.0   100.0   100.0   100.0   100.0   100.0   104.0
*

KK    CX1I COMBINE
KM    COMBINE ROUTED FLOW FROM RRX1 AND RRW2A
HC       2
*

KK  X1I-1W   ROUTE
KM   PROPOSED CHANNEL
KM    ROUTE OUTFLOW FROM RRX1 TO FRS NO. 3 VIA PROPOSED NEW CHANNEL
KM    STRUCTURE ID(s): W150
KM    Slope=(1184.0 - 1152.1) / 1648.8
RS       1    FLOW      -1
RC   0.045   0.045   0.045  1648.80.019313   104.0
RX     0.0    12.0    12.0    12.0    42.0    42.0    42.0    54.0
RY   104.0   100.0   100.0   100.0   100.0   100.0   100.0   104.0
*

KK      W2   BASIN
KM   BASIN W2
KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
KM    L=      2.3  Lca=      1.1   S=  422.0  Kn= .050  LAG=  33.0
KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
BA    2.69
LG     .27     .35    4.19     .40    3.00
UI    274.    522.   1229.   1805.   2237.   3080.   1992.   1608.   1388.   1185.
UI    993.    777.    656.    588.    442.    351.    306.    255.    210.    170.
UI    134.    134.     99.     53.     53.     53.     53.     53.     53.     53.
UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
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1 HEC-1 INPUT PAGE 7

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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
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265          KK      Y1   BASIN
266          KM   BASIN Y1
267          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
268          KM    L=      1.3  Lca=       .5   S=  789.0  Kn= .050  LAG=  17.0
269          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
270          BA     .57
271          LG     .38     .35    4.24     .42   12.00
272          UI    160.    607.   1074.    802.    556.    393.    270.    184.    131.     88.
273          UI     57.     43.     22.     22.     22.      0.      0.      0.      0.      0.
274          ZZ
1
                SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

    58        S800
                V
                V
    67       RR800
                V
                V
    76      800CHL
                .
                .
    85           .        S810
                 .           V
                 .           V
    94           .       RR810
                 .           V
                 .           V
   103           .      810CHL
                 .           .
                 .           .
   112      ALL800............
                 .
                 .
   115           .          S1
                 .           .
                 .           .
   127           .           .          U1
                 .           .           .
                 .           .           .
   139           .           .           .          V1
                 .           .           .           .
                 .           .           .           .
   150           .           .           .           .          W1
                 .           .           .           .           V
                 .           .           .           .           V
   161           .           .           .           .        RRW1
                 .           .           .           .           V
                 .           .           .           .           V
   170           .           .           .           .       W1-1W
                 .           .           .           .           .
                 .           .           .           .           .
   179           .           .           .           .           .         W2A
                 .           .           .           .           .           .
                 .           .           .           .           .           .
   191           .           .           .           .        CW2A............
                 .           .           .           .           V
                 .           .           .           .           V
   194           .           .           .           .       RRW2A
                 .           .           .           .           V
                 .           .           .           .           V
   204           .           .           .           .      W2AX1I
                 .           .           .           .           .
                 .           .           .           .           .
   213           .           .           .           .           .          X1
                 .           .           .           .           .           V
                 .           .           .           .           .           V
   224           .           .           .           .           .        RRX1
                 .           .           .           .           .           V
                 .           .           .           .           .           V
   233           .           .           .           .           .      X1-X1I
                 .           .           .           .           .           .
                 .           .           .           .           .           .
   242           .           .           .           .        CX1I............
                 .           .           .           .           V
                 .           .           .           .           V
   245           .           .           .           .      X1I-1W
                 .           .           .           .           .
                 .           .           .           .           .
   254           .           .           .           .           .          W2
                 .           .           .           .           .           .
                 .           .           .           .           .           .
   265           .           .           .           .           .           .          Y1

 (***) RUNOFF ALSO COMPUTED AT THIS LOCATION
1*************************************                                    ************************************
 *                                   *                                    *                                  *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                 *   U.S. ARMY CORPS OF ENGINEERS   *
 *              JUN   1998           *                                    *   HYDROLOGIC ENGINEERING CENTER  *
 *           VERSION 4.1             *                                    *         609 SECOND STREET        *
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*                                        *                                        *       DAVIS, CALIFORNIA 95616       *
*  RUN DATE   19APR06  TIME  16:07:31    *                                        *           (916) 756-1104            *
*                                        *                                        *                                     *
******************************************                                        ******************************************
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                    HYDROLOGY FOR STEP 2 ALTERNATIVES FOR SUN VALLEY ADMP
                       - FRS NO. 2 & 3 SUBBAREA
                       - ALTERNATIVE B42 - BIG BASIN, LEVEED CORRIDOR
                             - ALIGNMENT ALONG EAST SIDE OF SKYLINE FAN

                   Alternative Description
                   The purpose of Alternative B is to capture the upstream flow at the
                   apex using online detention basins.  The presence of the detention
                   basins eliminates the downstream alluvial fan uncertainties by controlling
                   the flow from the apices to the outfall.  Alternative B4-2 is based on
                   using a relatively larger on-line detention basin at the apex accompanied
                   by smaller leveed channel sections in the down fan direction.  It is the
                   second of three corridor alignments considered as part of the Alternative B4
                   series.


                    JE FULLER/ HYDROLOGY & GEOMORPHOLOGY, INC.
                    JANUARY 2006

                    MODEL BASED ON S800 SERIES PORTIONS OF:

                        A4_EX6 - SVADMP - Area 4 Existing Conditions 100-yr 6-hr
                        Major Basin: 01
                        100 Year - Return Period
                        6 Hour Storm
                        Multiple Storms
                        Unit Hydrograph: S-Graph
                        10/04/2005


                    AND BASED ON PORTIONS OF:

                         WHITE TANK WASH FDS (ALPHA, 1996)


 37 IO          OUTPUT CONTROL VARIABLES
                      IPRNT           5  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE

    IT          HYDROGRAPH TIME DATA
                       NMIN           5  MINUTES IN COMPUTATION INTERVAL
                      IDATE      1JAN99  STARTING DATE
                      ITIME        1200  STARTING TIME
                         NQ        2000  NUMBER OF HYDROGRAPH ORDINATES
                     NDDATE      8JAN99  ENDING DATE
                     NDTIME        1035  ENDING TIME
                      ICENT          19  CENTURY MARK

                 COMPUTATION INTERVAL     .08 HOURS
                      TOTAL TIME BASE  166.58 HOURS

         ENGLISH UNITS
              DRAINAGE AREA          SQUARE MILES
              PRECIPITATION DEPTH    INCHES
              LENGTH, ELEVATION      FEET
              FLOW                   CUBIC FEET PER SECOND
              STORAGE VOLUME         ACRE-FEET
              SURFACE AREA           ACRES
              TEMPERATURE            DEGREES FAHRENHEIT

 38 JD          INDEX STORM NO. 1
                       STRM        3.20  PRECIPITATION DEPTH
                       TRDA         .10  TRANSPOSITION DRAINAGE AREA

 39 PI            PRECIPITATION PATTERN
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .01       .01       .01       .01       .01       .01       .03
                      .03       .03       .05       .05       .05       .15       .15       .15       .03       .03
                      .03       .01       .01       .01       .01       .01       .01       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00

 42 JD          INDEX STORM NO. 2
                       STRM        3.18  PRECIPITATION DEPTH
                       TRDA         .50  TRANSPOSITION DRAINAGE AREA

 43 PI            PRECIPITATION PATTERN
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .01       .01       .01       .01       .01       .01       .03
                      .03       .03       .05       .05       .05       .15       .15       .15       .03       .03
                      .03       .01       .01       .01       .01       .01       .01       .00       .00       .00
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                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00

46 JD          INDEX STORM NO. 3
                     STRM        3.12  PRECIPITATION DEPTH
                     TRDA        2.80  TRANSPOSITION DRAINAGE AREA

47 PI            PRECIPITATION PATTERN
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00       .00       .01       .01       .01       .01       .01       .01       .03
                    .03       .03       .07       .07       .07       .08       .08       .08       .05       .05
                    .05       .02       .02       .02       .01       .01       .01       .00       .00       .00
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00

50 JD          INDEX STORM NO. 4
                     STRM        2.95  PRECIPITATION DEPTH
                     TRDA       16.00  TRANSPOSITION DRAINAGE AREA

51 PI            PRECIPITATION PATTERN
                    .01       .01       .00       .00       .00       .00       .00       .00       .00       .01
                    .01       .01       .00       .01       .00       .00       .00       .00       .00       .00
                    .00       .00       .01       .00       .00       .00       .00       .01       .01       .01
                    .01       .01       .01       .01       .01       .01       .02       .02       .02       .03
                    .03       .03       .06       .06       .06       .07       .07       .07       .04       .04
                    .04       .02       .02       .02       .01       .01       .01       .01       .01       .01
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00

54 JD          INDEX STORM NO. 5
                     STRM        2.59  PRECIPITATION DEPTH
                     TRDA       90.00  TRANSPOSITION DRAINAGE AREA

55 PI            PRECIPITATION PATTERN
                    .01       .01       .01       .00       .00       .00       .01       .01       .01       .01
                    .01       .01       .01       .01       .01       .01       .01       .01       .01       .01
                    .01       .01       .01       .01       .01       .01       .01       .01       .01       .01
                    .01       .01       .01       .01       .01       .01       .02       .02       .02       .03
                    .03       .03       .05       .05       .05       .05       .05       .05       .04       .04
                    .04       .02       .02       .02       .02       .02       .02       .01       .01       .01
                    .01       .01       .01       .01       .01       .01       .01       .01       .01       .01
                    .01       .01
1
                                                  RUNOFF SUMMARY
                                          FLOW IN CUBIC FEET PER SECOND
                                       TIME IN HOURS,  AREA IN SQUARE MILES

                                          PEAK   TIME OF    AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN    MAXIMUM    TIME OF
          OPERATION        STATION       FLOW    PEAK                                          AREA     STAGE    MAX STAGE
+                                                          6-HOUR     24-HOUR     72-HOUR

          HYDROGRAPH AT
+                           S800         595.    4.25        74.         18.          6.       .43

          ROUTED TO
+                          RR800          61.    5.25        51.         18.          6.       .43

          ROUTED TO
+                         800CHL          61.    5.33        51.         18.          6.       .43

          HYDROGRAPH AT
+                           S810        1355.    4.42       225.         56.         19.      1.61

          ROUTED TO
+                          RR810         136.    5.75       122.         56.         19.      1.61

          ROUTED TO
+                         810CHL         136.    5.83       122.         56.         19.      1.61

          2 COMBINED AT
+                         ALL800         189.    5.67       165.         70.         23.      2.04

          HYDROGRAPH AT
+                             S1        1537.    4.33       238.         60.         20.      1.46

          HYDROGRAPH AT
+                             U1        1553.    4.33       239.         60.         20.      1.39

          HYDROGRAPH AT
+                             V1         707.    4.42       114.         29.         10.       .70

          HYDROGRAPH AT
+                             W1        2581.    4.42       533.        134.         45.      3.95

          ROUTED TO
+                           RRW1         323.    5.92       290.        133.         45.      3.95

          ROUTED TO
+                          W1-1W         322.    6.42       288.        133.         45.      3.95

          HYDROGRAPH AT
+                            W2A         818.    4.33       120.         30.         10.       .77
```

	2 COMBINED AT							
+		CW2A	546.	4.42	336.	153.	52.	4.72
	ROUTED TO							
+		RRW2A	323.	6.75	307.	153.	52.	4.72
	ROUTED TO							
+		W2AX1I	322.	6.83	306.	153.	52.	4.72
	HYDROGRAPH AT							
+		X1	818.	4.33	120.	30.	10.	.77
	ROUTED TO							
+		RRX1	94.	5.50	80.	30.	10.	.77
	ROUTED TO							
+		X1-X1I	94.	5.50	80.	30.	10.	.77
	2 COMBINED AT							
+		CX1I	394.	6.42	367.	172.	58.	5.49
	ROUTED TO							
+		X1I-1W	394.	6.50	367.	172.	58.	5.49
	HYDROGRAPH AT							
+		W2	1993.	4.33	317.	79.	26.	2.69
	HYDROGRAPH AT							
+		Y1	1029.	4.08	91.	23.	8.	.57

*** NORMAL END OF HEC-1 ***

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1****************************************                    ****************************************
 *                                      *                    *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                    *   U.S. ARMY CORPS OF ENGINEERS       *
 *              JUN   1998              *                    *   HYDROLOGIC ENGINEERING CENTER      *
 *           VERSION 4.1                *                    *         609 SECOND STREET            *
 *                                      *                    *      DAVIS, CALIFORNIA 95616         *
 * RUN DATE   19APR06  TIME  16:07:31   *                    *          (916) 756-1104              *
 *                                      *                    *                                      *
 ****************************************                    ****************************************

X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X               X
XXXXXXX  XXXX     X        XXXXX  X
X     X  X        X               X
X     X  X        X     X         X
X     X  XXXXXXX   XXXXX         XXX

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                HEC-1 INPUT                                                PAGE  1

      LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

        1           ID    HYDROLOGY FOR STEP 2 ALTERNATIVES FOR SUN VALLEY ADMP
        2           ID       - FRS NO. 2 & 3 SUBBAREA
        3           ID       - ALTERNATIVE B42 - BIG BASIN, LEVEED CORRIDOR
        4           ID             - ALIGNMENT ALONG EAST SIDE OF SKYLINE FAN
        5           ID
        6           ID   Alternative Description
        7           ID   The purpose of Alternative B is to capture the upstream flow at the
        8           ID   apex using online detention basins.  The presence of the detention
        9           ID   basins eliminates the downstream alluvial fan uncertainties by controlling
       10           ID   the flow from the apices to the outfall.  Alternative B4-2 is based on
       11           ID   using a relatively larger on-line detention basin at the apex accompanied
       12           ID   by smaller leveed channel sections in the down fan direction.  It is the
       13           ID   second of three corridor alignments considered as part of the Alternative B4
       14           ID   series.
       15           ID
       16           ID
       17           ID    JE FULLER/ HYDROLOGY & GEOMORPHOLOGY, INC.
       18           ID    JANUARY 2006
       19           ID
       20           ID    MODEL BASED ON S800 SERIES PORTIONS OF:
       21           ID
       22           ID        FCDMC
       23           ID        A4_EX24 - SVADMP - Area 4 Existing Conditions 100-yr 24-hr
       24           ID        Major Basin: 01
       25           ID        100 Year - Return Period
       26           ID        24 Hour Storm
       27           ID        Multiple Storms
       28           ID        Unit Hydrograph: S-Graph
       29           ID        10/04/2005
       30           ID
       31           ID
       32           ID    AND BASED ON PORTIONS OF:
       33           ID
       34           ID         WHITE TANK WASH FDS (ALPHA, 1996)
       35           ID
       36           IT       5  1JAN99    1200    2000
       37           IN      15
       38           IO       5
                    *DIAGRAM
                    *
       39           JD   4.198  0.1000
       40           PC   0.000   0.002   0.005   0.008   0.011   0.014   0.017   0.020   0.023   0.026
       41           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056   0.060
       42           PC   0.064   0.068   0.072   0.076   0.080   0.085   0.090   0.095   0.100   0.105
       43           PC   0.110   0.115   0.120   0.126   0.133   0.140   0.147   0.155   0.163   0.172
       44           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
       45           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
       46           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
       47           PC   0.913   0.918   0.922   0.926   0.930   0.934   0.938   0.942   0.946   0.950
       48           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977   0.980
       49           PC   0.983   0.986   0.989   0.992   0.995   0.998   1.000
       50           JD   3.990    10.0
       51           JD   3.780    30.0
                    *
1                                                HEC-1 INPUT                                                PAGE  2

      LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
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```
 52          KK    S800   BASIN
 53          KM        Compute runoff from subbasin 800
 54          BA   0.431
 55          LG    0.27    0.35    4.60    0.34       9
 56          UI      49     118     252     353     489     442     297     255     213     170
 57          UI     134     113      92      69      57      48      38      29      24      25
 58          UI      12       9      10       9      10       9      10       0       0       0
 59          UI       0       0       0       0       0       0       0       0       0       0
 60          UI       0       0       0       0       0       0       0       0       0       0
             *

 61          KK   RR800 STORAGE
 62          KM   PROPOSED DETENTION BASIN
 63          KM    ROUTE RUNOFF FROM S800 THROUGH PROPOSED DETENTION BASIN
 64          KM    STRUCTURE ID:RR800
 65          KM    DIMENSIONS: L=750ft, W=300ft, D=8ft, Sideslope (?H:1V)= 3,  Vol.= 29.7 ac-ft
 66          RS       1    STOR       0
 67          SV     0.0     1.9     3.8     5.8     7.8    11.9    16.1    20.5    25.0    34.4
 68          SE     0.0     0.5     1.0     1.5     2.0     3.0     4.0     5.0     6.0     8.0
 69          SQ     0.0    16.7    23.6    28.9    33.4    40.9    47.3    52.9    57.9    66.9
             *

 70          KK  800CHL   ROUTE
 71          KM   PROPOSED CHANNEL
 72          KM    ROUTE RR800 OUTFLOW TO FRS
 73          KM    STRUCTURE ID(s): 80010
 74          KM    Slope=(1129.3 - 1105.8) / 1366.3
 75          RS       3    FLOW      -1
 76          RC   0.045   0.035   0.045  1366.30.017151   104.0
 77          RX     0.0    12.0    12.0    12.0    24.0    24.0    24.0    36.0
 78          RY   104.0   100.0   100.0   100.0   100.0   100.0   100.0   104.0
             *

 79          KK    S810   BASIN
 80          KM        Compute runoff from subbasin 810
 81          BA   1.607
 82          LG    0.30    0.35    4.65    0.32       4
 83          UI     140     200     493     790     997    1196    1589    1066     843     750
 84          UI     668     569     489     397     336     309     256     202     176     155
 85          UI     130     106     102      68      68      69      46      27      27      27
 86          UI      26      27      27      27      27       0       0       0       0       0
 87          UI       0       0       0       0       0       0       0       0       0       0
             *

 88          KK   RR810 STORAGE
 89          KM   PROPOSED DETENTION BASIN
 90          KM    ROUTE RUNOFF FROM S810 THROUGH PROPOSED DETENTION BASIN
 91          KM    STRUCTURE ID:RR810
 92          KM    DIMENSIONS: L=1050ft, W=500ft, D=10ft, Sideslope (?H:1V)= 3,  Vol.= 93.6 ac-
 93          RS       1    STOR       0
 94          SV     0.0    19.4    39.6    60.6    71.3    82.3    93.6   105.0   116.6   128.4
 95          SE     0.0     2.0     4.0     6.0     7.0     8.0     9.0    10.0    11.0    12.0
 96          SQ     0.0    65.5    92.7   113.5   122.6   131.0   139.0   146.5   153.6   160.5
             *
1                                          HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 97          KK  810CHL   ROUTE
 98          KM   PROPOSED CHANNEL
 99          KM    ROUTE RR810 OUTFLOW TO FRS
100          KM    STRUCTURE ID(s): 81010
101          KM    Slope=(1133.1 - 1105.8) / 2054.8
102          RS       3    FLOW      -1
103          RC   0.045   0.035   0.045  2054.80.013242   104.0
104          RX     0.0    12.0    12.0    12.0    44.0    44.0    44.0    56.0
105          RY   104.0   100.0   100.0   100.0   100.0   100.0   100.0   104.0
             *

106          KK  ALL800 COMBINE
107          KM        combination of all 800 series hydrographs AT FRS NO 2.
108          HC       2
             *
             * THE FOLLOWING PORTIONS ARE FROM THE WHITE TANK WASH FDS (ALPHA, 1996)
             *
             * White Tanks Wash Flood Insurance Study - 7-July-93 - JRB
             * ALPHA Engineering Group Inc. - 5 minute interval - 24 Hour Storm
             *

109          KK      S1   BASIN
110          KM   BASIN S1
111          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
112          KM    L=      2.4  Lca=       .7   S=  140.0  Kn= .050  LAG=  33.0
113          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
114          BA    1.46
115          LG     .19     .35    3.77     .31    7.00
116          UI    149.    284.    668.    981.   1216.   1674.   1082.    874.    754.    644.
117          UI    540.    422.    356.    320.    240.    191.    166.    138.    114.     92.
118          UI     73.     73.     54.     29.     29.     29.     29.     29.     29.     29.
119          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
120          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
             *
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 121          KK      U1   BASIN
 122          KM   BASIN U1
 123          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 124          KM    L=      2.1  Lca=      1.1   S=  377.0  Kn= .050  LAG=  32.0
 125          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 126          BA    1.39
 127          LG     .26     .37    4.74     .22    8.00
 128          UI    147.    294.    688.    987.   1245.   1598.   1002.    831.    714.    602.
 129          UI    493.    381.    338.    278.    212.    177.    159.    112.    107.     72.
 130          UI     72.     67.     28.     28.     28.     28.     28.     28.     28.      0.
 131          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
 132          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *
1                                          HEC-1 INPUT                                          PAGE  4

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 133          KK      V1   BASIN
 134          KM   BASIN V1
 135          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 136          KM    L=      2.7  Lca=      1.6   S=  389.0  Kn= .050  LAG=  40.0
 137          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 138          BA     .70
 139          LG     .26     .35    4.24     .41   13.00
 140          UI     59.     76.    200.    320.    406.    481.    660.    503.    372.    329.
 141          UI    290.    254.    221.    183.    150.    138.    123.     97.     77.     70.
 142          UI     64.     49.     45.     39.     29.     29.     29.     18.     11.     11.
 143          UI     11.     11.     11.     11.     11.     11.      0.      0.      0.      0.
              *

 144          KK      W1   BASIN
 145          KM   BASIN W1
 146          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 147          KM    L=      3.3  Lca=      1.6   S=  522.0  Kn= .050  LAG=  42.0
 148          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 149          BA    3.95
 150          LG     .30     .35    4.24     .40   15.00
 151          UI    317.    357.   1030.   1615.   2095.   2456.   3182.   3308.   2176.   1862.
 152          UI   1658.   1480.   1292.   1120.    914.    790.    722.    635.    518.    405.
 153          UI    375.    347.    270.    243.    223.    155.    155.    155.    129.     61.
 154          UI     61.     61.     61.     61.     61.     61.     61.     61.      0.      0.
              *

 155          KK    RRW1 STORAGE
 156          KM   PROPOSED DETENTION BASIN
 157          KM    ROUTE RUNOFF FROM SUBBASIN W1 THROUGH PROPOSED DETENTION BASIN
 158          KM    STRUCTURE ID:RRW1
 159          KM    DIMENSIONS: L=1600ft, W=800ft, D=10ft, Sideslope (?H:1V)= 3,  Vol.= 231.2 ac
 160          RS       1    STOR       0
 161          SV     0.0    49.2    99.6   151.3   177.6   204.3   231.2   258.5   286.1   314.0
 162          SE     0.0     2.0     4.0     6.0     7.0     8.0     9.0    10.0    11.0    12.0
 163          SQ     0.0   161.8   228.8   280.2   302.7   323.6   343.2   361.8   379.4   396.3
              *

 164          KK   W1-1W   ROUTE
 165          KM   PROPOSED CHANNEL
 166          KM    ROUTE OUTFLOW FROM RRW1 VIA EAST CHANNEL ALIGNMENT THRU W2 TO INSET FAN APEX
 167          KM    STRUCTURE ID(s): W130, W135
 168          KM    Slope=(1361.3 - 1221.6) / 7444.4
 169          RS       3    FLOW      -1
 170          RC   0.045   0.045   0.045  7444.40.018766   104.0
 171          RX     0.0    12.0    12.0    12.0   192.0   192.0   192.0   204.0
 172          RY   104.0   100.0   100.0   100.0   100.0   100.0   100.0   104.0
              *

 173          KK     W2A   BASIN
 174          KM   ASSUMED SAME AS BASIN X1 - USED TO REPRESENT HILLSLOPE WATERSHED CONTRIBUTING
 175          KM   TO EAST SIDE OF SKYLINE FAN
 176          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 177          KM    L=      2.3  Lca=      1.4   S=  457.0  Kn= .050  LAG=  35.0
 178          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
1                                          HEC-1 INPUT                                          PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 179          BA     .77
 180          LG     .28     .35    4.30     .43   12.00
 181          UI     74.    129.    301.    465.    569.    776.    674.    466.    404.    351.
 182          UI    300.    248.    196.    175.    151.    117.     95.     82.     70.     57.
 183          UI     50.     36.     36.     35.     14.     14.     14.     14.     14.     14.
 184          UI     14.     14.      0.      0.      0.      0.      0.      0.      0.      0.
              *

 185          KK    CW2A COMBINE
 186          KM    COMBINE RUNOFF FROM HILLSLOPE WATERSHED WITH ROUTED FLOW FROM SKYLINE FAN AP
 187          HC       2
              *

 188          KK   RRW2A STORAGE
 189          KM   PROPOSED DETENTION BASIN
 190          KM    ROUTE COMBINED FLOW THROUGH PROPOSED DETENTION BASIN AT INSET FAN ON EAST SI
 191          KM    STRUCTURE ID:RRW2A
 192          KM    DIMENSIONS: L=700ft, W=400ft, D=8ft, Sideslope (?H:1V)= 3,  Vol.= 37.8 ac-ft
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193          RS       1    STOR       0
194          SV     0.0    10.1    20.7    31.9    43.7    49.9    56.1    62.5    69.1    75.8
195          SE     0.0     2.0     4.0     6.0     8.0     9.0    10.0    11.0    12.0    13.0
196          SQ     0.0   192.5   272.3   333.5   385.1   408.4   430.5   451.5   471.6   490.9
             *

197          KK  W2AX1I   ROUTE
198          KM   PROPOSED CHANNEL
199          KM    ROUTE OUTFLOW FROM RRW2A TO CONFLUENCE WITH OUTFLOW FROM RRX1 IN PROPOSED CH
200          KM    STRUCTURE ID(s): W140
201          KM    Slope=(1221.6 - 1184.0) / 2235.9
202          RS       1    FLOW      -1
203          RC   0.045   0.045   0.045  2235.90.016851   104.0
204          RX     0.0    12.0    12.0    12.0    36.0    36.0    36.0    48.0
205          RY   104.0   100.0   100.0   100.0   100.0   100.0   100.0   104.0
             *

206          KK      X1   BASIN
207          KM   BASIN X1
208          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
209          KM    L=      2.3  Lca=      1.4   S=  457.0  Kn= .050  LAG=  35.0
210          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
211          BA     .77
212          LG     .28     .35    4.30     .43   12.00
213          UI     74.    129.    301.    465.    569.    776.    674.    466.    404.    351.
214          UI    300.    248.    196.    175.    151.    117.     95.     82.     70.     57.
215          UI     50.     36.     36.     35.     14.     14.     14.     14.     14.     14.
216          UI     14.     14.      0.      0.      0.      0.      0.      0.      0.      0.
             *

217          KK    RRX1 STORAGE
218          KM   PROPOSED DETENTION BASIN
219          KM    ROUTE RUNOFF FROM X1 THROUGH PROPOSED DETENTION BASIN
220          KM    STRUCTURE ID:RRX1
221          KM    DIMENSIONS: L=800ft, W=400ft, D=9ft, Sideslope (?H:1V)= 3,  Vol.= 47.3 ac-ft
222          RS       1    STOR       0
223          SV     0.0     5.4    16.6    22.4    28.4    34.5    40.8    47.3    53.9    60.6
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

224          SE     0.0     1.0     3.0     4.0     5.0     6.0     7.0     8.0     9.0    10.0
225          SQ     0.0    34.0    59.0    68.1    76.1    83.4    90.0    96.3   102.1   107.6
             *

226          KK  X1-X1I   ROUTE
227          KM   PROPOSED CHANNEL
228          KM    ROUTE OUTFLOW FROM RRX1 TO CONFLUENCE WITH PROPOSED NEW CHANNEL FROM RRW2A
229          KM    STRUCTURE ID(s): X110
230          KM    Slope=(1198.1 - 1184.0) /  861.7
231          RS       1    FLOW      -1
232          RC   0.045   0.045   0.045   861.7 0.01639   104.0
233          RX     0.0    12.0    12.0    12.0    32.0    32.0    32.0    44.0
234          RY   104.0   100.0   100.0   100.0   100.0   100.0   100.0   104.0
             *

235          KK    CX1I COMBINE
236          KM    COMBINE ROUTED FLOW FROM RRX1 AND RRW2A
237          HC       2
             *

238          KK  X1I-1W   ROUTE
239          KM   PROPOSED CHANNEL
240          KM    ROUTE OUTFLOW FROM RRX1 TO FRS NO. 3 VIA PROPOSED NEW CHANNEL
241          KM    STRUCTURE ID(s): W150
242          KM    Slope=(1184.0 - 1152.1) / 1648.8
243          RS       1    FLOW      -1
244          RC   0.045   0.045   0.045  1648.80.019313   104.0
245          RX     0.0    12.0    12.0    12.0    42.0    42.0    42.0    54.0
246          RY   104.0   100.0   100.0   100.0   100.0   100.0   100.0   104.0
             *

247          KK      W2   BASIN
248          KM   BASIN W2
249          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
250          KM    L=      2.3  Lca=      1.1   S=  422.0  Kn= .050  LAG=  33.0
251          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
252          BA    2.69
253          LG     .27     .35    4.19     .40    3.00
254          UI    274.    522.   1229.   1805.   2237.   3080.   1992.   1608.   1388.   1185.
255          UI    993.    777.    656.    588.    442.    351.    306.    255.    210.    170.
256          UI    134.    134.     99.     53.     53.     53.     53.     53.     53.     53.
257          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
             *

258          KK      Y1   BASIN
259          KM   BASIN Y1
260          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
261          KM    L=      1.3  Lca=       .5   S=  789.0  Kn= .050  LAG=  17.0
262          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
263          BA     .57
264          LG     .38     .35    4.24     .42   12.00
265          UI    160.    607.   1074.    802.    556.    393.    270.    184.    131.     88.
266          UI     57.     43.     22.     22.     22.      0.      0.      0.      0.      0.
267          ZZ
```

```
1
                 SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

    52        S800
                V
                V
    61       RR800
                V
                V
    70      800CHL
                .
                .
    79           .        S810
                 .           V
                 .           V
    88           .       RR810
                 .           V
                 .           V
    97           .      810CHL
                 .           .
                 .           .
   106      ALL800............
                 .
                 .
   109           .          S1
                 .           .
                 .           .
   121           .           .          U1
                 .           .           .
                 .           .           .
   133           .           .           .          V1
                 .           .           .           .
                 .           .           .           .
   144           .           .           .           .          W1
                 .           .           .           .           V
                 .           .           .           .           V
   155           .           .           .           .        RRW1
                 .           .           .           .           V
                 .           .           .           .           V
   164           .           .           .           .       W1-1W
                 .           .           .           .           .
                 .           .           .           .           .
   173           .           .           .           .           .         W2A
                 .           .           .           .           .           .
                 .           .           .           .           .           .
   185           .           .           .           .        CW2A............
                 .           .           .           .           V
                 .           .           .           .           V
   188           .           .           .           .       RRW2A
                 .           .           .           .           V
                 .           .           .           .           V
   197           .           .           .           .      W2AX1I
                 .           .           .           .           .
                 .           .           .           .           .
   206           .           .           .           .           .          X1
                 .           .           .           .           .           V
                 .           .           .           .           .           V
   217           .           .           .           .           .        RRX1
                 .           .           .           .           .           V
                 .           .           .           .           .           V
   226           .           .           .           .           .      X1-X1I
                 .           .           .           .           .           .
                 .           .           .           .           .           .
   235           .           .           .           .        CX1I............
                 .           .           .           .           V
                 .           .           .           .           V
   238           .           .           .           .      X1I-1W
                 .           .           .           .           .
                 .           .           .           .           .
   247           .           .           .           .           .          W2
                 .           .           .           .           .           .
                 .           .           .           .           .           .
   258           .           .           .           .           .           .          Y1

 (***) RUNOFF ALSO COMPUTED AT THIS LOCATION
1****************************************                                    ****************************************
 *                                      *                                    *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                    *   U.S. ARMY CORPS OF ENGINEERS       *
 *              JUN   1998              *                                    *   HYDROLOGIC ENGINEERING CENTER      *
 *           VERSION 4.1                *                                    *         609 SECOND STREET            *
 *                                      *                                    *      DAVIS, CALIFORNIA 95616         *
 *  RUN DATE   19APR06  TIME  16:07:31  *                                    *          (916) 756-1104              *
 *                                      *                                    *                                      *
 ****************************************                                    ****************************************
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HYDROLOGY FOR STEP 2 ALTERNATIVES FOR SUN VALLEY ADMP
- FRS NO. 2 & 3 SUBBAREA

```
                    - ALTERNATIVE B42 - BIG BASIN, LEVEED CORRIDOR
                         - ALIGNMENT ALONG EAST SIDE OF SKYLINE FAN

                 Alternative Description
                 The purpose of Alternative B is to capture the upstream flow at the
                 apex using online detention basins.  The presence of the detention
                 basins eliminates the downstream alluvial fan uncertainties by controlling
                 the flow from the apices to the outfall.  Alternative B4-2 is based on
                 using a relatively larger on-line detention basin at the apex accompanied
                 by smaller leveed channel sections in the down fan direction.  It is the
                 second of three corridor alignments considered as part of the Alternative B4
                 series.


                  JE FULLER/ HYDROLOGY & GEOMORPHOLOGY, INC.
                  JANUARY 2006

                  MODEL BASED ON S800 SERIES PORTIONS OF:

                      FCDMC
                      A4_EX24 - SVADMP - Area 4 Existing Conditions 100-yr 24-hr
                      Major Basin: 01
                      100 Year - Return Period
                      24 Hour Storm
                      Multiple Storms
                      Unit Hydrograph: S-Graph
                      10/04/2005


                  AND BASED ON PORTIONS OF:

                       WHITE TANK WASH FDS (ALPHA, 1996)


38 IO          OUTPUT CONTROL VARIABLES
                     IPRNT           5  PRINT CONTROL
                     IPLOT           0  PLOT CONTROL
                     QSCAL          0.  HYDROGRAPH PLOT SCALE

   IT          HYDROGRAPH TIME DATA
                      NMIN           5  MINUTES IN COMPUTATION INTERVAL
                     IDATE      1JAN99  STARTING DATE
                     ITIME        1200  STARTING TIME
                        NQ        2000  NUMBER OF HYDROGRAPH ORDINATES
                    NDDATE      8JAN99  ENDING DATE
                    NDTIME        1035  ENDING TIME
                     ICENT          19  CENTURY MARK

               COMPUTATION INTERVAL     .08 HOURS
                    TOTAL TIME BASE  166.58 HOURS

        ENGLISH UNITS
             DRAINAGE AREA          SQUARE MILES
             PRECIPITATION DEPTH    INCHES
             LENGTH, ELEVATION      FEET
             FLOW                   CUBIC FEET PER SECOND
             STORAGE VOLUME         ACRE-FEET
             SURFACE AREA           ACRES
             TEMPERATURE            DEGREES FAHRENHEIT

39 JD          INDEX STORM NO. 1
                      STRM        4.20  PRECIPITATION DEPTH
                      TRDA         .10  TRANSPOSITION DRAINAGE AREA

40 PI            PRECIPITATION PATTERN
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
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                    .00       .00       .00       .00       .00       .00       .00       .01       .00       .01
                    .01       .01       .01       .01       .01       .01       .01       .01       .03       .03
                    .03       .09       .09       .09       .01       .01       .01       .01       .01       .01
                    .01       .01       .01       .01       .01       .01       .00       .00       .00       .00
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
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                    .00       .00       .00       .00       .00       .00       .00       .00
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 50 JD          INDEX STORM NO. 2
                      STRM        3.99  PRECIPITATION DEPTH
                      TRDA       10.00  TRANSPOSITION DRAINAGE AREA

  0 PI           PRECIPITATION PATTERN
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
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                    .00       .00       .00       .00       .00       .00       .00       .01       .00       .01
                    .01       .01       .01       .01       .01       .01       .01       .01       .03       .03
                    .03       .09       .09       .09       .01       .01       .01       .01       .01       .01
                    .01       .01       .01       .01       .01       .01       .00       .00       .00       .00
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                    .00       .00       .00       .00       .00       .00       .00       .00

 51 JD          INDEX STORM NO. 3
                      STRM        3.78  PRECIPITATION DEPTH
                      TRDA       30.00  TRANSPOSITION DRAINAGE AREA

  0 PI           PRECIPITATION PATTERN
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
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                    .00       .00       .00       .00       .00       .00       .00       .01       .00       .01
                    .01       .01       .01       .01       .01       .01       .01       .01       .03       .03
                    .03       .09       .09       .09       .01       .01       .01       .01       .01       .01
                    .01       .01       .01       .01       .01       .01       .00       .00       .00       .00
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
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                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00       .00       .00       .00       .00       .00       .00
1
                                                RUNOFF SUMMARY
                                        FLOW IN CUBIC FEET PER SECOND
                                      TIME IN HOURS,  AREA IN SQUARE MILES

                                      PEAK   TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM     TIME OF
        OPERATION        STATION      FLOW    PEAK                                           AREA      STAGE     MAX STAGE
+                                                          6-HOUR     24-HOUR     72-HOUR

        HYDROGRAPH AT
+                          S800       474.   12.25          61.         16.          5.        .43

        ROUTED TO
+                         RR800        55.   13.25          46.         16.          5.        .43

        ROUTED TO
+                        800CHL        55.   13.25          46.         16.          5.        .43

        HYDROGRAPH AT
+                          S810      1387.   12.33         209.         54.         18.       1.61

        ROUTED TO
+                         RR810       132.   13.67         118.         53.         18.       1.61

        ROUTED TO
+                        810CHL       132.   13.75         118.         53.         18.       1.61
```

+	2 COMBINED AT	ALL800	185.	13.58	162.	69.	23.	2.04
+	HYDROGRAPH AT	S1	1520.	12.33	213.	56.	19.	1.46
+	HYDROGRAPH AT	U1	1540.	12.25	214.	57.	19.	1.39
+	HYDROGRAPH AT	V1	599.	12.42	99.	28.	9.	.70
+	HYDROGRAPH AT	W1	3228.	12.42	562.	159.	53.	3.95
+	ROUTED TO	RRW1	333.	13.92	304.	153.	53.	3.95
+	ROUTED TO	W1-1W	332.	14.42	302.	153.	53.	3.95
+	HYDROGRAPH AT	W2A	714.	12.33	106.	29.	10.	.77
+	2 COMBINED AT	CW2A	737.	12.33	367.	180.	62.	4.72
+	ROUTED TO	RRW2A	343.	14.58	330.	180.	62.	4.72
+	ROUTED TO	W2AX1I	343.	14.67	330.	180.	62.	4.72
+	HYDROGRAPH AT	X1	714.	12.33	106.	29.	10.	.77
+	ROUTED TO	RRX1	88.	13.42	75.	29.	10.	.77
+	ROUTED TO	X1-X1I	88.	13.50	75.	29.	10.	.77
+	2 COMBINED AT	CX1I	424.	14.33	401.	207.	72.	5.49
+	ROUTED TO	X1I-1W	424.	14.33	401.	207.	72.	5.49
+	HYDROGRAPH AT	W2	2472.	12.33	325.	84.	28.	2.69
+	HYDROGRAPH AT	Y1	848.	12.08	79.	22.	7.	.57

*** NORMAL END OF HEC-1 ***

```
1****************************************                    ****************************************
 *                                      *                    *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                    *    U.S. ARMY CORPS OF ENGINEERS      *
 *              JUN   1998              *                    *    HYDROLOGIC ENGINEERING CENTER     *
 *           VERSION 4.1                *                    *          609 SECOND STREET           *
 *                                      *                    *       DAVIS, CALIFORNIA 95616        *
 *  RUN DATE   19APR06  TIME  16:12:01  *                    *           (916) 756-1104             *
 *                                      *                    *                                      *
 ****************************************                    ****************************************

                                        X     X  XXXXXXX   XXXXX           X
                                        X     X  X        X     X         XX
                                        X     X  X        X                X
                                        XXXXXXX  XXXX     X        XXXXX   X
                                        X     X  X        X                X
                                        X     X  X        X     X          X
                                        X     X  XXXXXXX   XXXXX         XXX


THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                HEC-1 INPUT                                                PAGE  1

      LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

        1           ID    HYDROLOGY FOR STEP 2 ALTERNATIVES FOR SUN VALLEY ADMP
        2           ID       - FRS NO. 2 & 3 SUBBAREA
        3           ID       - ALTERNATIVE B43
        4           ID
        5           ID   Alternative Description
        6           ID   The purpose of Alternative B is to capture the upstream flow at the
        7           ID   apex using online detention basins.  The presence of the detention basins
        8           ID   eliminates the downstream alluvial fan uncertainties by controlling the
        9           ID   flow from the apices to the outfall.  Alternative B4-3 is based on using a
       10           ID   relatively larger on-line detention basin at the apex accompanied by smaller
       11           ID   leveed channel sections in the down fan direction.  It is the third of three
       12           ID   corridor alignments considered as part of the Alternative B4 series.
       13           ID
       14           ID
       15           ID    JE FULLER/ HYDROLOGY & GEOMORPHOLOGY, INC.
       16           ID    JANUARY 2006
       17           ID
       18           ID    MODEL BASED ON S800 SERIES PORTIONS OF:
       19           ID
       20           ID        A4_EX6 - SVADMP - Area 4 Existing Conditions 100-yr 6-hr
       21           ID        Major Basin: 01
       22           ID        100 Year - Return Period
       23           ID        6 Hour Storm
       24           ID        Multiple Storms
       25           ID        Unit Hydrograph: S-Graph
       26           ID        10/04/2005
       27           ID
       28           ID
       29           ID    AND BASED ON PORTIONS OF:
       30           ID
       31           ID         WHITE TANK WASH FDS (ALPHA, 1996)
       32           ID
       33           IT       5  1JAN99    1200    2000
       34           IN      15
       35           IO       5
                   *DIAGRAM
                   *
       36           JD   3.196  0.1000
       37           PC   0.000   0.008   0.016   0.025   0.033   0.041   0.050   0.058   0.066   0.074
       38           PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931   0.950
       39           PC   0.962   0.972   0.983   0.991   1.000
       40           JD   3.181  0.5000
       41           PC   0.000   0.008   0.016   0.025   0.033   0.041   0.050   0.058   0.066   0.074
       42           PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931   0.950
       43           PC   0.962   0.972   0.983   0.991   1.000
       44           JD   3.120     2.8
       45           PC   0.000   0.009   0.016   0.025   0.034   0.042   0.051   0.059   0.068   0.077
       46           PC   0.088   0.101   0.121   0.164   0.253   0.451   0.694   0.836   0.900   0.938
       47           PC   0.950   0.963   0.975   0.988   1.000
       48           JD   2.950    16.0
       49           PC   0.000   0.015   0.020   0.030   0.048   0.063   0.076   0.090   0.105   0.119
       50           PC   0.135   0.152   0.175   0.222   0.304   0.472   0.670   0.796   0.868   0.912
       51           PC   0.946   0.960   0.973   0.987   1.000
       52           JD   2.592    90.0
       53           PC   0.000   0.021   0.035   0.051   0.071   0.087   0.105   0.125   0.143   0.160
1                                                HEC-1 INPUT                                                PAGE  2
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  54          PC   0.179   0.201   0.232   0.281   0.364   0.500   0.658   0.773   0.841   0.888
  55          PC   0.927   0.945   0.964   0.982   1.000
              *

  56          KK    S800   BASIN
  57          KM        Compute runoff from subbasin 800
  58          BA   0.431
  59          LG    0.27    0.35    4.60    0.34       9
  60          UI      49     118     252     353     489     442     297     255     213     170
  61          UI     134     113      92      69      57      48      38      29      24      25
  62          UI      12       9      10       9      10       9      10       0       0       0
  63          UI       0       0       0       0       0       0       0       0       0       0
  64          UI       0       0       0       0       0       0       0       0       0       0
              *

  65          KK  800CHL   ROUTE
  66          KM   PROPOSED CHANNEL
  67          KM    ROUTE S800 RUNOFF FROM APEX TO FRS
  68          KM    STRUCTURE ID(s): 80010
  69          KM    Slope=(1129.3 - 1105.8) / 1366.3
  70          RS       3    FLOW      -1
  71          RC   0.045   0.045   0.045  1366.30.017151   104.5
  72          RX     0.0    13.5    13.5    13.5   143.5   143.5   143.5   157.0
  73          RY   104.5   100.0   100.0   100.0   100.0   100.0   100.0   104.5
              *

  74          KK    S810   BASIN
  75          KM        Compute runoff from subbasin 810
  76          BA   1.607
  77          LG    0.30    0.35    4.65    0.32       4
  78          UI     140     200     493     790     997    1196    1589    1066     843     750
  79          UI     668     569     489     397     336     309     256     202     176     155
  80          UI     130     106     102      68      68      69      46      27      27      27
  81          UI      26      27      27      27      27       0       0       0       0       0
  82          UI       0       0       0       0       0       0       0       0       0       0
              *

  83          KK  810CHL   ROUTE
  84          KM   PROPOSED CHANNEL
  85          KM    ROUTE S810 RUNOFF FROM APEX TO FRS
  86          KM    STRUCTURE ID(s): 81010
  87          KM    Slope=(1133.1 - 1105.8) / 2054.8
  88          RS       3    FLOW      -1
  89          RC   0.045   0.045   0.045  2054.80.013242   105.0
  90          RX     0.0    15.0    15.0    15.0   215.0   215.0   215.0   230.0
  91          RY   105.0   100.0   100.0   100.0   100.0   100.0   100.0   105.0
              *

  92          KK  ALL800 COMBINE
  93          KM        combination of all 800 series hydrographs AT FRS NO 2.
  94          HC       2
              *
              * THE FOLLOWING PORTIONS ARE FROM THE WHITE TANK WASH FDS (ALPHA, 1996)
              *
              * White Tanks Wash Flood Insurance Study - 7-July-93 - JRB
              * ALPHA Engineering Group Inc. - 5 minute interval - 24 Hour Storm
              *
1                                        HEC-1 INPUT                                          PAGE  3

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  95          KK      S1   BASIN
  96          KM   BASIN S1
  97          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
  98          KM    L=      2.4  Lca=       .7   S=  140.0  Kn= .050  LAG=  33.0
  99          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 100          BA    1.46
 101          LG     .19     .35    3.77     .31    7.00
 102          UI    149.    284.    668.    981.   1216.   1674.   1082.    874.    754.    644.
 103          UI    540.    422.    356.    320.    240.    191.    166.    138.    114.     92.
 104          UI     73.     73.     54.     29.     29.     29.     29.     29.     29.     29.
 105          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
 106          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *

 107          KK      U1   BASIN
 108          KM   BASIN U1
 109          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 110          KM    L=      2.1  Lca=      1.1   S=  377.0  Kn= .050  LAG=  32.0
 111          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 112          BA    1.39
 113          LG     .26     .37    4.74     .22    8.00
 114          UI    147.    294.    688.    987.   1245.   1598.   1002.    831.    714.    602.
 115          UI    493.    381.    338.    278.    212.    177.    159.    112.    107.     72.
 116          UI     72.     67.     28.     28.     28.     28.     28.     28.     28.      0.
 117          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
 118          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *

 119          KK      V1   BASIN
 120          KM   BASIN V1
 121          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
```

```
 122          KM    L=      2.7  Lca=      1.6   S=  389.0  Kn= .050  LAG=  40.0
 123          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 124          BA     .70
 125          LG     .26      .35    4.24     .41   13.00
 126          UI     59.      76.    200.    320.    406.    481.    660.    503.    372.    329.
 127          UI    290.     254.    221.    183.    150.    138.    123.     97.     77.     70.
 128          UI     64.      49.     45.     39.     29.     29.     29.     18.     11.     11.
 129          UI     11.      11.     11.     11.     11.     11.      0.      0.      0.      0.
              *

 130          KK      W1   BASIN
 131          KM   BASIN W1
 132          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 133          KM    L=      3.3  Lca=      1.6   S=  522.0  Kn= .050  LAG=  42.0
 134          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 135          BA    3.95
 136          LG     .30      .35    4.24     .40   15.00
 137          UI    317.     357.   1030.   1615.   2095.   2456.   3182.   3308.   2176.   1862.
 138          UI   1658.    1480.   1292.   1120.    914.    790.    722.    635.    518.    405.
 139          UI    375.     347.    270.    243.    223.    155.    155.    155.    129.     61.
 140          UI     61.      61.     61.     61.     61.     61.     61.     61.      0.      0.
              *
1                                          HEC-1 INPUT                                          PAGE  4

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 141          KK    RRW1 STORAGE
 142          KM   PROPOSED DETENTION BASIN
 143          KM    ROUTE RUNOFF FROM SUBBASIN W1 THROUGH PROPOSED DETENTION BASIN
 144          KM    outlet pipe of 5 ft diameter assumed
 145          KM    STRUCTURE ID:RRW1
 146          KM    DIMENSIONS: L=1600ft, W=800ft, D=10ft, Sideslope (?H:1V)= 3,  Vol.= 231.2 ac
 147          RS       1    STOR       0
 148          SV     0.0     49.2    99.6   151.3   177.6   204.3   231.2   258.5   286.1   314.0
 149          SE     0.0      2.0     4.0     6.0     7.0     8.0     9.0    10.0    11.0    12.0
 150          SQ     0.0    161.8   228.8   280.2   302.7   323.6   343.2   361.8   379.4   396.3
              *

 151          KK   W1-1W   ROUTE
 152          KM   PROPOSED CHANNEL
 153          KM    ROUTE OUTFLOW FROM RRW1 VIA EAST CHANNEL ALIGNMENT THRU W2 TO INSET FAN APEX
 154          KM    STRUCTURE ID(s): W130, W135
 155          KM    Slope=(1361.3 - 1221.6) / 7444.4
 156          RS       3    FLOW      -1
 157          RC   0.045   0.045   0.045  7444.40.018766   104.0
 158          RX     0.0    12.0    12.0    12.0   192.0   192.0   192.0   204.0
 159          RY   104.0   100.0   100.0   100.0   100.0   100.0   100.0   104.0
              *

 160          KK     W2A   BASIN
 161          KM   ASSUMED SAME AS BASIN X1 - USED TO REPRESENT HILLSLOPE WATERSHED CONTRIBUTING
 162          KM   TO EAST SIDE OF SKYLINE FAN
 163          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 164          KM    L=      2.3  Lca=      1.4   S=  457.0  Kn= .050  LAG=  35.0
 165          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 166          BA     .77
 167          LG     .28      .35    4.30     .43   12.00
 168          UI     74.     129.    301.    465.    569.    776.    674.    466.    404.    351.
 169          UI    300.     248.    196.    175.    151.    117.     95.     82.     70.     57.
 170          UI     50.      36.     36.     35.     14.     14.     14.     14.     14.     14.
 171          UI     14.      14.      0.      0.      0.      0.      0.      0.      0.      0.
              *

 172          KK    CW2A COMBINE
 173          KM    COMBINE RUNOFF FROM HILLSLOPE WATERSHED WITH ROUTED FLOW FROM SKYLINE FAN AP
 174          HC       2
              *

 175          KK   RRW2A STORAGE
 176          KM   PROPOSED DETENTION BASIN
 177          KM    ROUTE COMBINED FLOW THROUGH PROPOSED DETENTION BASIN AT INSET FAN ON EAST SI
 178          KM    outlet pipe of 5 ft diameter assumed
 179          KM    STRUCTURE ID:RRW2A
 180          KM    DIMENSIONS: L=700ft, W=400ft, D=8ft, Sideslope (?H:1V)= 3,  Vol.= 37.8 ac-ft
 181          RS       1    STOR       0
 182          SV     0.0     10.1    20.7    31.9    43.7    49.9    56.1    62.5    69.1    75.8
 183          SE     0.0      2.0     4.0     6.0     8.0     9.0    10.0    11.0    12.0    13.0
 184          SQ     0.0    192.5   272.3   333.5   385.1   408.4   430.5   451.5   471.6   490.9
              *
1                                          HEC-1 INPUT                                          PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 185          KK  W2AX1I   ROUTE
 186          KM   PROPOSED CHANNEL
 187          KM    ROUTE OUTFLOW FROM RRW2A TO CONFLUENCE WITH OUTFLOW FROM RRX1 IN PROPOSED CH
 188          KM    STRUCTURE ID(s): W140
 189          KM    Slope=(1221.6 - 1184.0) / 2235.9
 190          RS       1    FLOW      -1
 191          RC   0.045   0.045   0.045  2235.90.016851   104.0
 192          RX     0.0    12.0    12.0    12.0    72.0    72.0    72.0    84.0
 193          RY   104.0   100.0   100.0   100.0   100.0   100.0   100.0   104.0
              *
```

```
194          KK      X1   BASIN
195          KM   BASIN X1
196          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
197          KM    L=      2.3  Lca=      1.4   S=  457.0  Kn= .050  LAG=  35.0
198          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
199          BA     .77
200          LG     .28     .35    4.30     .43   12.00
201          UI     74.    129.    301.    465.    569.    776.    674.    466.    404.    351.
202          UI    300.    248.    196.    175.    151.    117.     95.     82.     70.     57.
203          UI     50.     36.     36.     35.     14.     14.     14.     14.     14.     14.
204          UI     14.     14.      0.      0.      0.      0.      0.      0.      0.      0.
             *

205          KK    RRX1 STORAGE
206          KM   PROPOSED DETENTION BASIN
207          KM    ROUTE RUNOFF FROM X1 THROUGH PROPOSED DETENTION BASIN
208          KM    outlet pipe of 2.5 ft diameter assumed
209          KM    STRUCTURE ID:RRX1
210          KM    DIMENSIONS: L=800ft, W=400ft, D=9ft, Sideslope (?H:1V)= 3,  Vol.= 47.3 ac-ft
211          RS       1    STOR       0
212          SV     0.0     5.4    16.6    22.4    28.4    34.5    40.8    47.3    53.9    60.6
213          SE     0.0     1.0     3.0     4.0     5.0     6.0     7.0     8.0     9.0    10.0
214          SQ     0.0    34.0    59.0    68.1    76.1    83.4    90.0    96.3   102.1   107.6
             *

215          KK  X1-X1I   ROUTE
216          KM   PROPOSED CHANNEL
217          KM    ROUTE OUTFLOW FROM RRX1 TO CONFLUENCE WITH PROPOSED NEW CHANNEL FROM RRW2A
218          KM    STRUCTURE ID(s): X110
219          KM    Slope=(1198.1 - 1184.0) /  861.7
220          RS       1    FLOW      -1
221          RC   0.045   0.045   0.045   861.7 0.01639   104.0
222          RX     0.0    12.0    12.0    12.0    32.0    32.0    32.0    44.0
223          RY   104.0   100.0   100.0   100.0   100.0   100.0   100.0   104.0
             *

224          KK    CX1I COMBINE
225          KM    COMBINE ROUTED FLOW FROM RRX1 AND RRW2A
226          HC       2
             *
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

227          KK  X1I-1W   ROUTE
228          KM   PROPOSED CHANNEL
229          KM    ROUTE OUTFLOW FROM RRX1 TO FRS NO. 3 VIA PROPOSED NEW CHANNEL
230          KM    STRUCTURE ID(s): W150
231          KM    Slope=(1184.0 - 1152.1) / 1648.8
232          RS       1    FLOW      -1
233          RC   0.045   0.045   0.045  1648.80.019313   104.0
234          RX     0.0    12.0    12.0    12.0    42.0    42.0    42.0    54.0
235          RY   104.0   100.0   100.0   100.0   100.0   100.0   100.0   104.0
             *

236          KK      W2   BASIN
237          KM   BASIN W2
238          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
239          KM    L=      2.3  Lca=      1.1   S=  422.0  Kn= .050  LAG=  33.0
240          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
241          BA    2.69
242          LG     .27     .35    4.19     .40    3.00
243          UI    274.    522.   1229.   1805.   2237.   3080.   1992.   1608.   1388.   1185.
244          UI    993.    777.    656.    588.    442.    351.    306.    255.    210.    170.
245          UI    134.    134.     99.     53.     53.     53.     53.     53.     53.     53.
246          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
             *

247          KK      Y1   BASIN
248          KM   BASIN Y1
249          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
250          KM    L=      1.3  Lca=       .5   S=  789.0  Kn= .050  LAG=  17.0
251          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
252          BA     .57
253          LG     .38     .35    4.24     .42   12.00
254          UI    160.    607.   1074.    802.    556.    393.    270.    184.    131.     88.
255          UI     57.     43.     22.     22.     22.      0.      0.      0.      0.      0.
256          ZZ
```

1

```
             SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE     (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.     (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

   56        S800
                V
                V
   65      800CHL
                .
                .
   74           .        S810
                .           V
```

```
                .          V
   83           .      810CHL
                .          .
                .          .
   92      ALL800...........
                .
                .
   95           .         S1
                .          .
                .          .
  107           .          .         U1
                .          .          .
                .          .          .
  119           .          .          .         V1
                .          .          .          .
                .          .          .          .
  130           .          .          .          .          W1
                .          .          .          .           V
                .          .          .          .           V
  141           .          .          .          .        RRW1
                .          .          .          .           V
                .          .          .          .           V
  151           .          .          .          .       W1-1W
                .          .          .          .           .
                .          .          .          .           .
  160           .          .          .          .           .         W2A
                .          .          .          .           .           .
                .          .          .          .           .           .
  172           .          .          .          .        CW2A...........
                .          .          .          .           V
                .          .          .          .           V
  175           .          .          .          .       RRW2A
                .          .          .          .           V
                .          .          .          .           V
  185           .          .          .          .      W2AX1I
                .          .          .          .           .
                .          .          .          .           .
  194           .          .          .          .           .          X1
                .          .          .          .           .           V
                .          .          .          .           .           V
  205           .          .          .          .           .        RRX1
                .          .          .          .           .           V
                .          .          .          .           .           V
  215           .          .          .          .           .      X1-X1I
                .          .          .          .           .           .
                .          .          .          .           .           .
  224           .          .          .          .        CX1I...........
                .          .          .          .           V
                .          .          .          .           V
  227           .          .          .          .      X1I-1W
                .          .          .          .           .
                .          .          .          .           .
  236           .          .          .          .           .          W2
                .          .          .          .           .           .
                .          .          .          .           .           .
  247           .          .          .          .           .           .          Y1
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

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1****************************************                                    ****************************************
*                                      *                                    *                                      *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                    *   U.S. ARMY CORPS OF ENGINEERS       *
*              JUN   1998              *                                    *   HYDROLOGIC ENGINEERING CENTER      *
*           VERSION 4.1                *                                    *         609 SECOND STREET            *
*                                      *                                    *      DAVIS, CALIFORNIA 95616         *
*  RUN DATE   19APR06  TIME  16:12:01  *                                    *          (916) 756-1104              *
*                                      *                                    *                                      *
****************************************                                    ****************************************
```

HYDROLOGY FOR STEP 2 ALTERNATIVES FOR SUN VALLEY ADMP
- FRS NO. 2 & 3 SUBBAREA
- ALTERNATIVE B43

Alternative Description
The purpose of Alternative B is to capture the upstream flow at the apex using online detention basins. The presence of the detention basins eliminates the downstream alluvial fan uncertainties by controlling the flow from the apices to the outfall. Alternative B4-3 is based on using a relatively larger on-line detention basin at the apex accompanied by smaller leveed channel sections in the down fan direction. It is the third of three corridor alignments considered as part of the Alternative B4 series.

JE FULLER/ HYDROLOGY & GEOMORPHOLOGY, INC.
JANUARY 2006

MODEL BASED ON S800 SERIES PORTIONS OF:

A4_EX6 - SVADMP - Area 4 Existing Conditions 100-yr 6-hr
Major Basin: 01
100 Year - Return Period
6 Hour Storm

```
                    Multiple Storms
                    Unit Hydrograph: S-Graph
                    10/04/2005


                AND BASED ON PORTIONS OF:

                     WHITE TANK WASH FDS (ALPHA, 1996)


35 IO        OUTPUT CONTROL VARIABLES
                   IPRNT          5  PRINT CONTROL
                   IPLOT          0  PLOT CONTROL
                   QSCAL         0.  HYDROGRAPH PLOT SCALE

   IT        HYDROGRAPH TIME DATA
                    NMIN          5  MINUTES IN COMPUTATION INTERVAL
                   IDATE     1JAN99  STARTING DATE
                   ITIME       1200  STARTING TIME
                      NQ       2000  NUMBER OF HYDROGRAPH ORDINATES
                  NDDATE     8JAN99  ENDING DATE
                  NDTIME       1035  ENDING TIME
                   ICENT         19  CENTURY MARK

             COMPUTATION INTERVAL     .08 HOURS
                  TOTAL TIME BASE  166.58 HOURS

      ENGLISH UNITS
           DRAINAGE AREA          SQUARE MILES
           PRECIPITATION DEPTH    INCHES
           LENGTH, ELEVATION      FEET
           FLOW                   CUBIC FEET PER SECOND
           STORAGE VOLUME         ACRE-FEET
           SURFACE AREA           ACRES
           TEMPERATURE            DEGREES FAHRENHEIT

36 JD        INDEX STORM NO. 1
                   STRM       3.20  PRECIPITATION DEPTH
                   TRDA        .10  TRANSPOSITION DRAINAGE AREA

37 PI          PRECIPITATION PATTERN
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .01       .01       .01       .01       .01       .01       .03
                 .03       .03       .05       .05       .05       .15       .15       .15       .03       .03
                 .03       .01       .01       .01       .01       .01       .01       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00

40 JD        INDEX STORM NO. 2
                   STRM       3.18  PRECIPITATION DEPTH
                   TRDA        .50  TRANSPOSITION DRAINAGE AREA

41 PI          PRECIPITATION PATTERN
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .01       .01       .01       .01       .01       .01       .03
                 .03       .03       .05       .05       .05       .15       .15       .15       .03       .03
                 .03       .01       .01       .01       .01       .01       .01       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00

44 JD        INDEX STORM NO. 3
                   STRM       3.12  PRECIPITATION DEPTH
                   TRDA       2.80  TRANSPOSITION DRAINAGE AREA

45 PI          PRECIPITATION PATTERN
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .01       .01       .01       .01       .01       .01       .03
                 .03       .03       .07       .07       .07       .08       .08       .08       .05       .05
                 .05       .02       .02       .02       .01       .01       .01       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00

48 JD        INDEX STORM NO. 4
                   STRM       2.95  PRECIPITATION DEPTH
                   TRDA      16.00  TRANSPOSITION DRAINAGE AREA

49 PI          PRECIPITATION PATTERN
                 .01       .01       .00       .00       .00       .00       .00       .00       .00       .01
                 .01       .01       .00       .01       .00       .00       .00       .00       .00       .00
                 .00       .00       .01       .00       .00       .00       .00       .01       .01       .01
                 .01       .01       .01       .01       .01       .01       .02       .02       .02       .03
                 .03       .03       .06       .06       .06       .07       .07       .07       .04       .04
                 .04       .02       .02       .02       .01       .01       .01       .01       .01       .01
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00

52 JD        INDEX STORM NO. 5
                   STRM       2.59  PRECIPITATION DEPTH
                   TRDA      90.00  TRANSPOSITION DRAINAGE AREA
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```
  53 PI            PRECIPITATION PATTERN
                     .01       .01       .01       .00       .00       .00       .01       .01       .01       .01
                     .01       .01       .01       .01       .01       .01       .01       .01       .01       .01
                     .01       .01       .01       .01       .01       .01       .01       .01       .01       .01
                     .01       .01       .01       .01       .01       .01       .02       .02       .02       .03
                     .03       .03       .05       .05       .05       .05       .05       .05       .04       .04
                     .04       .02       .02       .02       .02       .02       .02       .01       .01       .01
                     .01       .01       .01       .01       .01       .01       .01       .01       .01       .01
                     .01       .01
1
                                                    RUNOFF SUMMARY
                                              FLOW IN CUBIC FEET PER SECOND
                                            TIME IN HOURS,  AREA IN SQUARE MILES

                                          PEAK   TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM     TIME OF
          OPERATION        STATION       FLOW    PEAK                                            AREA      STAGE     MAX STAGE
+                                                              6-HOUR     24-HOUR     72-HOUR

          HYDROGRAPH AT
+                            S800        595.    4.25          74.         18.          6.       .43

          ROUTED TO
+                          800CHL        592.    4.33          74.         18.          6.       .43

          HYDROGRAPH AT
+                            S810       1355.    4.42         225.         56.         19.      1.61

          ROUTED TO
+                          810CHL       1339.    4.50         225.         56.         19.      1.61

          2 COMBINED AT
+                          ALL800       1617.    4.42         279.         70.         23.      2.04

          HYDROGRAPH AT
+                             S1        1537.    4.33         238.         60.         20.      1.46

          HYDROGRAPH AT
+                             U1        1553.    4.33         239.         60.         20.      1.39

          HYDROGRAPH AT
+                             V1         707.    4.42         114.         29.         10.       .70

          HYDROGRAPH AT
+                             W1        2581.    4.42         533.        134.         45.      3.95

          ROUTED TO
+                           RRW1         323.    5.92         290.        133.         45.      3.95

          ROUTED TO
+                          W1-1W         322.    6.42         288.        133.         45.      3.95

          HYDROGRAPH AT
+                            W2A         818.    4.33         120.         30.         10.       .77

          2 COMBINED AT
+                           CW2A         546.    4.42         336.        153.         52.      4.72

          ROUTED TO
+                          RRW2A         323.    6.75         307.        153.         52.      4.72

          ROUTED TO
+                         W2AX1I         322.    6.83         306.        153.         52.      4.72

          HYDROGRAPH AT
+                             X1         818.    4.33         120.         30.         10.       .77

          ROUTED TO
+                           RRX1          94.    5.50          80.         30.         10.       .77

          ROUTED TO
+                          X1-X1I         94.    5.50          80.         30.         10.       .77

          2 COMBINED AT
+                           CX1I         394.    6.42         367.        172.         58.      5.49

          ROUTED TO
+                         X1I-1W         394.    6.50         367.        172.         58.      5.49

          HYDROGRAPH AT
+                             W2        1993.    4.33         317.         79.         26.      2.69

          HYDROGRAPH AT
+                             Y1        1029.    4.08          91.         23.          8.       .57

*** NORMAL END OF HEC-1 ***
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1****************************************                    ****************************************
 *                                      *                    *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                    *   U.S. ARMY CORPS OF ENGINEERS       *
 *              JUN   1998              *                    *   HYDROLOGIC ENGINEERING CENTER      *
 *            VERSION 4.1               *                    *         609 SECOND STREET            *
 *                                      *                    *      DAVIS, CALIFORNIA 95616         *
 *  RUN DATE   19APR06  TIME  16:12:01  *                    *          (916) 756-1104              *
 *                                      *                    *                                      *
 ****************************************                    ****************************************

                                        X     X  XXXXXXX   XXXXX           X
                                        X     X  X        X     X         XX
                                        X     X  X        X                X
                                        XXXXXXX  XXXX     X        XXXXX   X
                                        X     X  X        X                X
                                        X     X  X        X     X          X
                                        X     X  XXXXXXX   XXXXX         XXX


THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                HEC-1 INPUT                                                PAGE  1

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

             1          ID    HYDROLOGY FOR STEP 2 ALTERNATIVES FOR SUN VALLEY ADMP
             2          ID       - FRS NO. 2 & 3 SUBBAREA
             3          ID       - ALTERNATIVE B43
             4          ID
             5          ID   Alternative Description
             6          ID   The purpose of Alternative B is to capture the upstream flow at the
             7          ID   apex using online detention basins.  The presence of the detention basins
             8          ID   eliminates the downstream alluvial fan uncertainties by controlling the
             9          ID   flow from the apices to the outfall.  Alternative B4-3 is based on using a
            10          ID   relatively larger on-line detention basin at the apex accompanied by smaller
            11          ID   leveed channel sections in the down fan direction.  It is the third of three
            12          ID   corridor alignments considered as part of the Alternative B4 series.
            13          ID
            14          ID
            15          ID    JE FULLER/ HYDROLOGY & GEOMORPHOLOGY, INC.
            16          ID    JANUARY 2006
            17          ID
            18          ID    MODEL BASED ON S800 SERIES PORTIONS OF:
            19          ID
            20          ID        FCDMC
            21          ID        A4_EX24 - SVADMP - Area 4 Existing Conditions 100-yr 24-hr
            22          ID        Major Basin: 01
            23          ID        100 Year - Return Period
            24          ID        24 Hour Storm
            25          ID        Multiple Storms
            26          ID        Unit Hydrograph: S-Graph
            27          ID        10/04/2005
            28          ID
            29          ID
            30          ID    AND BASED ON PORTIONS OF:
            31          ID
            32          ID         WHITE TANK WASH FDS (ALPHA, 1996)
            33          ID
            34          IT       5  1JAN99    1200    2000
            35          IN      15
            36          IO       5
                       *DIAGRAM
                       *
            37          JD   4.198  0.1000
            38          PC   0.000   0.002   0.005   0.008   0.011   0.014   0.017   0.020   0.023   0.026
            39          PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056   0.060
            40          PC   0.064   0.068   0.072   0.076   0.080   0.085   0.090   0.095   0.100   0.105
            41          PC   0.110   0.115   0.120   0.126   0.133   0.140   0.147   0.155   0.163   0.172
            42          PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
            43          PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
            44          PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
            45          PC   0.913   0.918   0.922   0.926   0.930   0.934   0.938   0.942   0.946   0.950
            46          PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977   0.980
            47          PC   0.983   0.986   0.989   0.992   0.995   0.998   1.000
            48          JD   3.990    10.0
            49          JD   3.780    30.0
                       *

1                                                HEC-1 INPUT                                                PAGE  2

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
 50          KK    S800   BASIN
 51          KM        Compute runoff from subbasin 800
 52          BA   0.431
 53          LG    0.27    0.35    4.60    0.34       9
 54          UI      49     118     252     353     489     442     297     255     213     170
 55          UI     134     113      92      69      57      48      38      29      24      25
 56          UI      12       9      10       9      10       9      10       0       0       0
 57          UI       0       0       0       0       0       0       0       0       0       0
 58          UI       0       0       0       0       0       0       0       0       0       0
             *

 59          KK  800CHL   ROUTE
 60          KM   PROPOSED CHANNEL
 61          KM    ROUTE S800 RUNOFF FROM APEX TO FRS
 62          KM    STRUCTURE ID(s): 80010
 63          KM    Slope=(1129.3 - 1105.8) / 1366.3
 64          RS       3    FLOW      -1
 65          RC   0.045   0.045   0.045  1366.30.017151   104.5
 66          RX     0.0    13.5    13.5    13.5   143.5   143.5   143.5   157.0
 67          RY   104.5   100.0   100.0   100.0   100.0   100.0   100.0   104.5
             *

 68          KK    S810   BASIN
 69          KM        Compute runoff from subbasin 810
 70          BA   1.607
 71          LG    0.30    0.35    4.65    0.32       4
 72          UI     140     200     493     790     997    1196    1589    1066     843     750
 73          UI     668     569     489     397     336     309     256     202     176     155
 74          UI     130     106     102      68      68      69      46      27      27      27
 75          UI      26      27      27      27      27       0       0       0       0       0
 76          UI       0       0       0       0       0       0       0       0       0       0
             *

 77          KK  810CHL   ROUTE
 78          KM   PROPOSED CHANNEL
 79          KM    ROUTE S810 RUNOFF FROM APEX TO FRS
 80          KM    STRUCTURE ID(s): 81010
 81          KM    Slope=(1133.1 - 1105.8) / 2054.8
 82          RS       3    FLOW      -1
 83          RC   0.045   0.045   0.045  2054.80.013242   105.0
 84          RX     0.0    15.0    15.0    15.0   215.0   215.0   215.0   230.0
 85          RY   105.0   100.0   100.0   100.0   100.0   100.0   100.0   105.0
             *

 86          KK  ALL800 COMBINE
 87          KM        combination of all 800 series hydrographs AT FRS NO 2.
 88          HC       2
             *
             * THE FOLLOWING PORTIONS ARE FROM THE WHITE TANK WASH FDS (ALPHA, 1996)
             *
             * White Tanks Wash Flood Insurance Study - 7-July-93 - JRB
             * ALPHA Engineering Group Inc. - 5 minute interval - 24 Hour Storm
             *
1                                        HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 89          KK      S1   BASIN
 90          KM   BASIN S1
 91          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 92          KM    L=      2.4  Lca=       .7   S=  140.0  Kn= .050  LAG=  33.0
 93          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 94          BA    1.46
 95          LG     .19     .35    3.77     .31    7.00
 96          UI    149.    284.    668.    981.   1216.   1674.   1082.    874.    754.    644.
 97          UI    540.    422.    356.    320.    240.    191.    166.    138.    114.     92.
 98          UI     73.     73.     54.     29.     29.     29.     29.     29.     29.     29.
 99          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
100          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
             *

101          KK      U1   BASIN
102          KM   BASIN U1
103          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
104          KM    L=      2.1  Lca=      1.1   S=  377.0  Kn= .050  LAG=  32.0
105          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
106          BA    1.39
107          LG     .26     .37    4.74     .22    8.00
108          UI    147.    294.    688.    987.   1245.   1598.   1002.    831.    714.    602.
109          UI    493.    381.    338.    278.    212.    177.    159.    112.    107.     72.
110          UI     72.     67.     28.     28.     28.     28.     28.     28.     28.      0.
111          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
112          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
             *

113          KK      V1   BASIN
114          KM   BASIN V1
115          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
116          KM    L=      2.7  Lca=      1.6   S=  389.0  Kn= .050  LAG=  40.0
117          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
118          BA     .70
119          LG     .26     .35    4.24     .41   13.00
120          UI     59.     76.    200.    320.    406.    481.    660.    503.    372.    329.
121          UI    290.    254.    221.    183.    150.    138.    123.     97.     77.     70.
```

```
 122          UI     64.     49.     45.     39.     29.     29.     29.     18.     11.     11.
 123          UI     11.     11.     11.     11.     11.     11.      0.      0.      0.      0.
              *

 124          KK      W1   BASIN
 125          KM   BASIN W1
 126          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 127          KM    L=      3.3  Lca=      1.6   S=  522.0  Kn= .050  LAG=  42.0
 128          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 129          BA    3.95
 130          LG     .30     .35    4.24     .40   15.00
 131          UI    317.    357.   1030.   1615.   2095.   2456.   3182.   3308.   2176.   1862.
 132          UI   1658.   1480.   1292.   1120.    914.    790.    722.    635.    518.    405.
 133          UI    375.    347.    270.    243.    223.    155.    155.    155.    129.     61.
 134          UI     61.     61.     61.     61.     61.     61.     61.     61.      0.      0.
              *
1                                                HEC-1 INPUT                                                    PAGE  4

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 135          KK    RRW1 STORAGE
 136          KM   PROPOSED DETENTION BASIN
 137          KM    ROUTE RUNOFF FROM SUBBASIN W1 THROUGH PROPOSED DETENTION BASIN
 138          KM    outlet pipe of 5 ft diameter assumed
 139          KM    STRUCTURE ID:RRW1
 140          KM    DIMENSIONS: L=1600ft, W=800ft, D=10ft, Sideslope (?H:1V)= 3,  Vol.= 231.2 ac
 141          RS       1    STOR       0
 142          SV     0.0    49.2    99.6   151.3   177.6   204.3   231.2   258.5   286.1   314.0
 143          SE     0.0     2.0     4.0     6.0     7.0     8.0     9.0    10.0    11.0    12.0
 144          SQ     0.0   161.8   228.8   280.2   302.7   323.6   343.2   361.8   379.4   396.3
              *

 145          KK   W1-1W   ROUTE
 146          KM   PROPOSED CHANNEL
 147          KM    ROUTE OUTFLOW FROM RRW1 VIA EAST CHANNEL ALIGNMENT THRU W2 TO INSET FAN APEX
 148          KM    STRUCTURE ID(s): W130, W135
 149          KM    Slope=(1361.3 - 1221.6) / 7444.4
 150          RS       3    FLOW      -1
 151          RC   0.045   0.045   0.045  7444.40.018766   104.0
 152          RX     0.0    12.0    12.0    12.0   192.0   192.0   192.0   204.0
 153          RY   104.0   100.0   100.0   100.0   100.0   100.0   100.0   104.0
              *

 154          KK     W2A   BASIN
 155          KM   ASSUMED SAME AS BASIN X1 - USED TO REPRESENT HILLSLOPE WATERSHED CONTRIBUTING
 156          KM   TO EAST SIDE OF SKYLINE FAN
 157          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 158          KM    L=      2.3  Lca=      1.4   S=  457.0  Kn= .050  LAG=  35.0
 159          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 160          BA     .77
 161          LG     .28     .35    4.30     .43   12.00
 162          UI     74.    129.    301.    465.    569.    776.    674.    466.    404.    351.
 163          UI    300.    248.    196.    175.    151.    117.     95.     82.     70.     57.
 164          UI     50.     36.     36.     35.     14.     14.     14.     14.     14.     14.
 165          UI     14.     14.      0.      0.      0.      0.      0.      0.      0.      0.
              *

 166          KK    CW2A COMBINE
 167          KM    COMBINE RUNOFF FROM HILLSLOPE WATERSHED WITH ROUTED FLOW FROM SKYLINE FAN AP
 168          HC       2
              *

 169          KK   RRW2A STORAGE
 170          KM   PROPOSED DETENTION BASIN
 171          KM    ROUTE COMBINED FLOW THROUGH PROPOSED DETENTION BASIN AT INSET FAN ON EAST SI
 172          KM    outlet pipe of 5 ft diameter assumed
 173          KM    STRUCTURE ID:RRW2A
 174          KM    DIMENSIONS: L=700ft, W=400ft, D=8ft, Sideslope (?H:1V)= 3,  Vol.= 37.8 ac-ft
 175          RS       1    STOR       0
 176          SV     0.0    10.1    20.7    31.9    43.7    49.9    56.1    62.5    69.1    75.8
 177          SE     0.0     2.0     4.0     6.0     8.0     9.0    10.0    11.0    12.0    13.0
 178          SQ     0.0   192.5   272.3   333.5   385.1   408.4   430.5   451.5   471.6   490.9
              *
1                                                HEC-1 INPUT                                                    PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 179          KK  W2AX1I   ROUTE
 180          KM   PROPOSED CHANNEL
 181          KM    ROUTE OUTFLOW FROM RRW2A TO CONFLUENCE WITH OUTFLOW FROM RRX1 IN PROPOSED CH
 182          KM    STRUCTURE ID(s): W140
 183          KM    Slope=(1221.6 - 1184.0) / 2235.9
 184          RS       1    FLOW      -1
 185          RC   0.045   0.045   0.045  2235.90.016851   104.0
 186          RX     0.0    12.0    12.0    12.0    72.0    72.0    72.0    84.0
 187          RY   104.0   100.0   100.0   100.0   100.0   100.0   100.0   104.0
              *

 188          KK      X1   BASIN
 189          KM   BASIN X1
 190          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 191          KM    L=      2.3  Lca=      1.4   S=  457.0  Kn= .050  LAG=  35.0
 192          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
```

```
 193          BA     .77
 194          LG     .28      .35    4.30     .43   12.00
 195          UI     74.     129.    301.    465.    569.    776.    674.    466.    404.    351.
 196          UI    300.     248.    196.    175.    151.    117.     95.     82.     70.     57.
 197          UI     50.      36.     36.     35.     14.     14.     14.     14.     14.     14.
 198          UI     14.      14.      0.      0.      0.      0.      0.      0.      0.      0.
              *

 199          KK    RRX1 STORAGE
 200          KM   PROPOSED DETENTION BASIN
 201          KM    ROUTE RUNOFF FROM X1 THROUGH PROPOSED DETENTION BASIN
 202          KM    outlet pipe of 2.5 ft diameter assumed
 203          KM    STRUCTURE ID:RRX1
 204          KM    DIMENSIONS: L=800ft, W=400ft, D=9ft, Sideslope (?H:1V)= 3,  Vol.= 47.3 ac-ft
 205          RS       1    STOR       0
 206          SV     0.0      5.4    16.6    22.4    28.4    34.5    40.8    47.3    53.9    60.6
 207          SE     0.0      1.0     3.0     4.0     5.0     6.0     7.0     8.0     9.0    10.0
 208          SQ     0.0     34.0    59.0    68.1    76.1    83.4    90.0    96.3   102.1   107.6
              *

 209          KK  X1-X1I   ROUTE
 210          KM   PROPOSED CHANNEL
 211          KM    ROUTE OUTFLOW FROM RRX1 TO CONFLUENCE WITH PROPOSED NEW CHANNEL FROM RRW2A
 212          KM    STRUCTURE ID(s): X110
 213          KM    Slope=(1198.1 - 1184.0) /  861.7
 214          RS       1    FLOW      -1
 215          RC   0.045   0.045   0.045   861.7 0.01639   104.0
 216          RX     0.0    12.0    12.0    12.0    32.0    32.0    32.0    44.0
 217          RY   104.0   100.0   100.0   100.0   100.0   100.0   100.0   104.0
              *

 218          KK    CX1I COMBINE
 219          KM    COMBINE ROUTED FLOW FROM RRX1 AND RRW2A
 220          HC       2
              *
1                                          HEC-1 INPUT                                          PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 221          KK  X1I-1W   ROUTE
 222          KM   PROPOSED CHANNEL
 223          KM    ROUTE OUTFLOW FROM RRX1 TO FRS NO. 3 VIA PROPOSED NEW CHANNEL
 224          KM    STRUCTURE ID(s): W150
 225          KM    Slope=(1184.0 - 1152.1) / 1648.8
 226          RS       1    FLOW      -1
 227          RC   0.045   0.045   0.045  1648.80.019313   104.0
 228          RX     0.0    12.0    12.0    12.0    42.0    42.0    42.0    54.0
 229          RY   104.0   100.0   100.0   100.0   100.0   100.0   100.0   104.0
              *

 230          KK      W2   BASIN
 231          KM   BASIN W2
 232          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 233          KM    L=      2.3  Lca=      1.1   S=  422.0  Kn= .050  LAG=  33.0
 234          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 235          BA    2.69
 236          LG     .27      .35    4.19     .40    3.00
 237          UI    274.     522.   1229.   1805.   2237.   3080.   1992.   1608.   1388.   1185.
 238          UI    993.     777.    656.    588.    442.    351.    306.    255.    210.    170.
 239          UI    134.     134.     99.     53.     53.     53.     53.     53.     53.     53.
 240          UI      0.       0.      0.      0.      0.      0.      0.      0.      0.      0.
              *

 241          KK      Y1   BASIN
 242          KM   BASIN Y1
 243          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 244          KM    L=      1.3  Lca=       .5   S=  789.0  Kn= .050  LAG=  17.0
 245          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 246          BA     .57
 247          LG     .38      .35    4.24     .42   12.00
 248          UI    160.     607.   1074.    802.    556.    393.    270.    184.    131.     88.
 249          UI     57.      43.     22.     22.     22.      0.      0.      0.      0.      0.
 250          ZZ
1
              SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

   50         S800
                V
                V
   59       800CHL
                .
                .
   68           .        S810
                .           V
                .           V
   77           .      810CHL
                .           .
                .           .
   86       ALL800............
                .
```

```
                .
  89            .          S1
                .           .
                .           .
 101            .           .          U1
                .           .           .
                .           .           .
 113            .           .           .          V1
                .           .           .           .
                .           .           .           .
 124            .           .           .           .          W1
                .           .           .           .           V
                .           .           .           .           V
 135            .           .           .           .        RRW1
                .           .           .           .           V
                .           .           .           .           V
 145            .           .           .           .       W1-1W
                .           .           .           .           .
                .           .           .           .           .
 154            .           .           .           .           .         W2A
                .           .           .           .           .           .
                .           .           .           .           .           .
 166            .           .           .           .        CW2A...........
                .           .           .           .           V
                .           .           .           .           V
 169            .           .           .           .       RRW2A
                .           .           .           .           V
                .           .           .           .           V
 179            .           .           .           .      W2AX1I
                .           .           .           .           .
                .           .           .           .           .
 188            .           .           .           .           .          X1
                .           .           .           .           .           V
                .           .           .           .           .           V
 199            .           .           .           .           .        RRX1
                .           .           .           .           .           V
                .           .           .           .           .           V
 209            .           .           .           .           .      X1-X1I
                .           .           .           .           .           .
                .           .           .           .           .           .
 218            .           .           .           .        CX1I...........
                .           .           .           .           V
                .           .           .           .           V
 221            .           .           .           .      X1I-1W
                .           .           .           .           .
                .           .           .           .           .
 230            .           .           .           .           .          W2
                .           .           .           .           .           .
                .           .           .           .           .           .
 241            .           .           .           .           .           .          Y1

 (***) RUNOFF ALSO COMPUTED AT THIS LOCATION
1****************************************                                    ****************************************
 *                                      *                                    *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                    *   U.S. ARMY CORPS OF ENGINEERS       *
 *              JUN   1998              *                                    *   HYDROLOGIC ENGINEERING CENTER      *
 *           VERSION 4.1                *                                    *         609 SECOND STREET            *
 *                                      *                                    *      DAVIS, CALIFORNIA 95616         *
 *  RUN DATE   19APR06  TIME  16:12:01  *                                    *          (916) 756-1104              *
 *                                      *                                    *                                      *
 ****************************************                                    ****************************************
```

HYDROLOGY FOR STEP 2 ALTERNATIVES FOR SUN VALLEY ADMP
- FRS NO. 2 & 3 SUBBAREA
- ALTERNATIVE B43

Alternative Description
The purpose of Alternative B is to capture the upstream flow at the apex using online detention basins. The presence of the detention basins eliminates the downstream alluvial fan uncertainties by controlling the flow from the apices to the outfall. Alternative B4-3 is based on using a relatively larger on-line detention basin at the apex accompanied by smaller leveed channel sections in the down fan direction. It is the third of three corridor alignments considered as part of the Alternative B4 series.

JE FULLER/ HYDROLOGY & GEOMORPHOLOGY, INC.
JANUARY 2006

MODEL BASED ON S800 SERIES PORTIONS OF:

FCDMC
A4_EX24 - SVADMP - Area 4 Existing Conditions 100-yr 24-hr
Major Basin: 01
100 Year - Return Period
24 Hour Storm
Multiple Storms
Unit Hydrograph: S-Graph
10/04/2005

```
                    AND BASED ON PORTIONS OF:

                         WHITE TANK WASH FDS (ALPHA, 1996)

36 IO        OUTPUT CONTROL VARIABLES
                 IPRNT          5  PRINT CONTROL
                 IPLOT          0  PLOT CONTROL
                 QSCAL         0.  HYDROGRAPH PLOT SCALE

   IT        HYDROGRAPH TIME DATA
                  NMIN          5  MINUTES IN COMPUTATION INTERVAL
                 IDATE     1JAN99  STARTING DATE
                 ITIME       1200  STARTING TIME
                    NQ       2000  NUMBER OF HYDROGRAPH ORDINATES
                NDDATE     8JAN99  ENDING DATE
                NDTIME       1035  ENDING TIME
                 ICENT         19  CENTURY MARK

            COMPUTATION INTERVAL     .08 HOURS
                 TOTAL TIME BASE  166.58 HOURS

      ENGLISH UNITS
           DRAINAGE AREA          SQUARE MILES
           PRECIPITATION DEPTH    INCHES
           LENGTH, ELEVATION      FEET
           FLOW                   CUBIC FEET PER SECOND
           STORAGE VOLUME         ACRE-FEET
           SURFACE AREA           ACRES
           TEMPERATURE            DEGREES FAHRENHEIT

37 JD        INDEX STORM NO. 1
                 STRM        4.20  PRECIPITATION DEPTH
                 TRDA         .10  TRANSPOSITION DRAINAGE AREA

38 PI          PRECIPITATION PATTERN
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
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                 .00       .00       .00       .00       .00       .00       .00       .01       .00       .01
                 .01       .01       .01       .01       .01       .01       .01       .01       .03       .03
                 .03       .09       .09       .09       .01       .01       .01       .01       .01       .01
                 .01       .01       .01       .01       .01       .01       .00       .00       .00       .00
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                 .00       .00       .00       .00       .00       .00       .00       .00

48 JD        INDEX STORM NO. 2
                 STRM        3.99  PRECIPITATION DEPTH
                 TRDA       10.00  TRANSPOSITION DRAINAGE AREA

 0 PI          PRECIPITATION PATTERN
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
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                 .01       .01       .01       .01       .01       .01       .01       .01       .03       .03
                 .03       .09       .09       .09       .01       .01       .01       .01       .01       .01
                 .01       .01       .01       .01       .01       .01       .00       .00       .00       .00
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                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00

 49 JD        INDEX STORM NO. 3
                STRM        3.78  PRECIPITATION DEPTH
                TRDA       30.00  TRANSPOSITION DRAINAGE AREA

  0 PI          PRECIPITATION PATTERN
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
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                .01       .01       .01       .01       .01       .01       .01       .01       .03       .03
                .03       .09       .09       .09       .01       .01       .01       .01       .01       .01
                .01       .01       .01       .01       .01       .01       .00       .00       .00       .00
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                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
1
                                                RUNOFF SUMMARY
                                        FLOW IN CUBIC FEET PER SECOND
                                      TIME IN HOURS,  AREA IN SQUARE MILES

                                        PEAK   TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM     TIME OF
        OPERATION        STATION        FLOW    PEAK                                           AREA      STAGE     MAX STAGE
+                                                          6-HOUR     24-HOUR     72-HOUR

        HYDROGRAPH AT
+                          S800         474.   12.25        61.         16.          5.        .43

        ROUTED TO
+                        800CHL         469.   12.33        61.         16.          5.        .43

        HYDROGRAPH AT
+                          S810        1387.   12.33       209.         54.         18.       1.61

        ROUTED TO
+                        810CHL        1365.   12.50       209.         54.         18.       1.61

        2 COMBINED AT
+                        ALL800        1773.   12.42       268.         70.         23.       2.04

        HYDROGRAPH AT
+                            S1        1520.   12.33       213.         56.         19.       1.46

        HYDROGRAPH AT
+                            U1        1540.   12.25       214.         57.         19.       1.39

        HYDROGRAPH AT
+                            V1         599.   12.42        99.         28.          9.        .70

        HYDROGRAPH AT
+                            W1        3228.   12.42       562.        159.         53.       3.95

        ROUTED TO
+                          RRW1         333.   13.92       304.        153.         53.       3.95

        ROUTED TO
+                         W1-1W         332.   14.42       302.        153.         53.       3.95

        HYDROGRAPH AT
+                           W2A         714.   12.33       106.         29.         10.        .77

        2 COMBINED AT
+                           CW2A        737.   12.33       367.        180.         62.       4.72

        ROUTED TO
+                         RRW2A         343.   14.58       330.        180.         62.       4.72

        ROUTED TO
+                        W2AX1I         343.   14.75       330.        180.         62.       4.72

        HYDROGRAPH AT
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+                          X1      714.  12.33       106.       29.       10.       .77

        ROUTED TO
+                        RRX1       88.  13.42        75.       29.       10.       .77

        ROUTED TO
+                      X1-X1I       88.  13.50        75.       29.       10.       .77

        2 COMBINED AT
+                        CX1I      424.  14.33       401.      207.       72.      5.49

        ROUTED TO
+                      X1I-1W      424.  14.42       401.      207.       72.      5.49

        HYDROGRAPH AT
+                          W2     2472.  12.33       325.       84.       28.      2.69

        HYDROGRAPH AT
+                          Y1      848.  12.08        79.       22.        7.       .57

 *** NORMAL END OF HEC-1 ***
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1****************************************                    ****************************************
 *                                      *                    *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                    *   U.S. ARMY CORPS OF ENGINEERS       *
 *              JUN   1998              *                    *   HYDROLOGIC ENGINEERING CENTER      *
 *           VERSION 4.1                *                    *         609 SECOND STREET            *
 *                                      *                    *      DAVIS, CALIFORNIA 95616         *
 * RUN DATE   19APR06  TIME  16:16:13   *                    *          (916) 756-1104              *
 *                                      *                    *                                      *
 ****************************************                    ****************************************

                                    X     X  XXXXXXX   XXXXX           X
                                    X     X  X        X     X         XX
                                    X     X  X        X                X
                                    XXXXXXX  XXXX     X        XXXXX   X
                                    X     X  X        X                X
                                    X     X  X        X     X          X
                                    X     X  XXXXXXX   XXXXX          XXX

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                HEC-1 INPUT                                                PAGE  1

      LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

        1           ID    HYDROLOGY FOR STEP 2 ALTERNATIVES FOR SUN VALLEY ADMP
        2           ID       - FRS NO. 2 & 3 SUBBAREA
        3           ID       - ALTERNATIVE C
        4           ID
        5           ID   Alternative Description
        6           ID   Alternative C is based on the concept of an excavated concrete-lined
        7           ID   channel from the apex to the outfall, without providing any detention
        8           ID   basin is at the apex.  To address sedimentation associated with the
        9           ID   alluvial fan systems, sedimentation basins are provided throughout the
       10           ID   system.  The excavated concrete channels are complemented with a 120-foot
       11           ID   wide adjacent riparian preservation corridor.
       12           ID
       13           ID
       14           ID    JE FULLER/ HYDROLOGY & GEOMORPHOLOGY, INC.
       15           ID    JANUARY 2006
       16           ID
       17           ID    MODEL BASED ON S800 SERIES PORTIONS OF:
       18           ID
       19           ID        A4_EX6 - SVADMP - Area 4 Existing Conditions 100-yr 6-hr
       20           ID        Major Basin: 01
       21           ID        100 Year - Return Period
       22           ID        6 Hour Storm
       23           ID        Multiple Storms
       24           ID        Unit Hydrograph: S-Graph
       25           ID        10/04/2005
       26           ID
       27           ID
       28           ID    AND BASED ON PORTIONS OF:
       29           ID
       30           ID         WHITE TANK WASH FDS (ALPHA, 1996)
       31           ID
       32           IT       5  1JAN99    1200    2000
       33           IN      15
       34           IO       5
                   *DIAGRAM
                   *
       35           JD   3.196  0.1000
       36           PC   0.000   0.008   0.016   0.025   0.033   0.041   0.050   0.058   0.066   0.074
       37           PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931   0.950
       38           PC   0.962   0.972   0.983   0.991   1.000
       39           JD   3.181  0.5000
       40           PC   0.000   0.008   0.016   0.025   0.033   0.041   0.050   0.058   0.066   0.074
       41           PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931   0.950
       42           PC   0.962   0.972   0.983   0.991   1.000
       43           JD   3.120     2.8
       44           PC   0.000   0.009   0.016   0.025   0.034   0.042   0.051   0.059   0.068   0.077
       45           PC   0.088   0.101   0.121   0.164   0.253   0.451   0.694   0.836   0.900   0.938
       46           PC   0.950   0.963   0.975   0.988   1.000
       47           JD   2.950    16.0
       48           PC   0.000   0.015   0.020   0.030   0.048   0.063   0.076   0.090   0.105   0.119
       49           PC   0.135   0.152   0.175   0.222   0.304   0.472   0.670   0.796   0.868   0.912
       50           PC   0.946   0.960   0.973   0.987   1.000
       51           JD   2.592    90.0
       52           PC   0.000   0.021   0.035   0.051   0.071   0.087   0.105   0.125   0.143   0.160
       53           PC   0.179   0.201   0.232   0.281   0.364   0.500   0.658   0.773   0.841   0.888
1                                                HEC-1 INPUT                                                PAGE  2
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  54          PC   0.927   0.945   0.964   0.982   1.000
              *

  55          KK    S800   BASIN
  56          KM        Compute runoff from subbasin 800
  57          BA   0.431
  58          LG    0.27    0.35    4.60    0.34       9
  59          UI      49     118     252     353     489     442     297     255     213     170
  60          UI     134     113      92      69      57      48      38      29      24      25
  61          UI      12       9      10       9      10       9      10       0       0       0
  62          UI       0       0       0       0       0       0       0       0       0       0
  63          UI       0       0       0       0       0       0       0       0       0       0
              *

  64          KK  800CHL   ROUTE
  65          KM   PROPOSED CHANNEL
  66          KM    ROUTE S800 RUNOFF FROM APEX TO FRS
  67          KM    STRUCTURE ID(s): 80010
  68          KM    Slope=(1129.3 - 1105.8) / 1366.3
  69          RS       3    FLOW      -1
  70          RC    0.02    0.02    0.02  1366.30.017151   104.5
  71          RX     0.0    13.5    13.5    13.5    28.5    28.5    28.5    42.0
  72          RY   104.5   100.0   100.0   100.0   100.0   100.0   100.0   104.5
              *

  73          KK    S810   BASIN
  74          KM        Compute runoff from subbasin 810
  75          BA   1.607
  76          LG    0.30    0.35    4.65    0.32       4
  77          UI     140     200     493     790     997    1196    1589    1066     843     750
  78          UI     668     569     489     397     336     309     256     202     176     155
  79          UI     130     106     102      68      68      69      46      27      27      27
  80          UI      26      27      27      27      27       0       0       0       0       0
  81          UI       0       0       0       0       0       0       0       0       0       0
              *

  82          KK  810CHL   ROUTE
  83          KM   PROPOSED CHANNEL
  84          KM    ROUTE S810 RUNOFF FROM APEX TO FRS
  85          KM    STRUCTURE ID(s): 81010
  86          KM    Slope=(1133.1 - 1105.8) / 2054.8
  87          RS       3    FLOW      -1
  88          RC    0.02    0.02    0.02  2054.80.013242   106.0
  89          RX     0.0    18.0    18.0    18.0    43.0    43.0    43.0    61.0
  90          RY   106.0   100.0   100.0   100.0   100.0   100.0   100.0   106.0
              *

  91          KK  ALL800 COMBINE
  92          KM        combination of all 800 series hydrographs AT FRS NO 2.
  93          HC       2
              *
              * THE FOLLOWING PORTIONS ARE FROM THE WHITE TANK WASH FDS (ALPHA, 1996)
              *
              * White Tanks Wash Flood Insurance Study - 7-July-93 - JRB
              * ALPHA Engineering Group Inc. - 5 minute interval - 24 Hour Storm
              *
1                                          HEC-1 INPUT                                          PAGE  3

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  94          KK      S1   BASIN
  95          KM   BASIN S1
  96          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
  97          KM    L=      2.4  Lca=      .7   S=  140.0  Kn= .050  LAG=  33.0
  98          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
  99          BA    1.46
 100          LG     .19     .35    3.77     .31    7.00
 101          UI    149.    284.    668.    981.   1216.   1674.   1082.    874.    754.    644.
 102          UI    540.    422.    356.    320.    240.    191.    166.    138.    114.     92.
 103          UI     73.     73.     54.     29.     29.     29.     29.     29.     29.     29.
 104          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
 105          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *

 106          KK      U1   BASIN
 107          KM   BASIN U1
 108          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 109          KM    L=      2.1  Lca=      1.1   S=  377.0  Kn= .050  LAG=  32.0
 110          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 111          BA    1.39
 112          LG     .26     .37    4.74     .22    8.00
 113          UI    147.    294.    688.    987.   1245.   1598.   1002.    831.    714.    602.
 114          UI    493.    381.    338.    278.    212.    177.    159.    112.    107.     72.
 115          UI     72.     67.     28.     28.     28.     28.     28.     28.     28.      0.
 116          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
 117          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *

 118          KK      V1   BASIN
 119          KM   BASIN V1
 120          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 121          KM    L=      2.7  Lca=      1.6   S=  389.0  Kn= .050  LAG=  40.0
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 122          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 123          BA     .70
 124          LG     .26     .35    4.24     .41   13.00
 125          UI     59.     76.    200.    320.    406.    481.    660.    503.    372.    329.
 126          UI    290.    254.    221.    183.    150.    138.    123.     97.     77.     70.
 127          UI     64.     49.     45.     39.     29.     29.     29.     18.     11.     11.
 128          UI     11.     11.     11.     11.     11.     11.      0.      0.      0.      0.
              *

 129          KK      W1   BASIN
 130          KM   BASIN W1
 131          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 132          KM    L=      3.3  Lca=      1.6   S=  522.0  Kn= .050  LAG=  42.0
 133          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 134          BA    3.95
 135          LG     .30     .35    4.24     .40   15.00
 136          UI    317.    357.   1030.   1615.   2095.   2456.   3182.   3308.   2176.   1862.
 137          UI   1658.   1480.   1292.   1120.    914.    790.    722.    635.    518.    405.
 138          UI    375.    347.    270.    243.    223.    155.    155.    155.    129.     61.
 139          UI     61.     61.     61.     61.     61.     61.     61.     61.      0.      0.
              *
1                                          HEC-1 INPUT                                          PAGE  4

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 140          KK   W1-1W   ROUTE
 141          KM   PROPOSED CHANNEL
 142          KM    ROUTE OUTFLOW FROM RRW1 VIA EAST CHANNEL ALIGNMENT THRU W2 TO INSET FAN APEX
 143          KM    STRUCTURE ID(s): W130, W135
 144          KM    Slope=(1361.3 - 1221.6) / 7444.4
 145          RS       3    FLOW      -1
 146          RC    0.02    0.02    0.02  7444.40.018766   106.0
 147          RX     0.0    18.0    18.0    18.0    98.0    98.0    98.0   116.0
 148          RY   106.0   100.0   100.0   100.0   100.0   100.0   100.0   106.0
              *

 149          KK     W2A   BASIN
 150          KM   ASSUMED SAME AS BASIN X1 - USED TO REPRESENT HILLSLOPE WATERSHED CONTRIBUTING
 151          KM   TO EAST SIDE OF SKYLINE FAN
 152          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 153          KM    L=      2.3  Lca=      1.4   S=  457.0  Kn= .050  LAG=  35.0
 154          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 155          BA     .77
 156          LG     .28     .35    4.30     .43   12.00
 157          UI     74.    129.    301.    465.    569.    776.    674.    466.    404.    351.
 158          UI    300.    248.    196.    175.    151.    117.     95.     82.     70.     57.
 159          UI     50.     36.     36.     35.     14.     14.     14.     14.     14.     14.
 160          UI     14.     14.      0.      0.      0.      0.      0.      0.      0.      0.
              *

 161          KK    CW2A COMBINE
 162          KM    COMBINE RUNOFF FROM HILLSLOPE WATERSHED WITH ROUTED FLOW FROM SKYLINE FAN AP
 163          HC       2
              *

 164          KK  W2AX1I   ROUTE
 165          KM   PROPOSED CHANNEL
 166          KM    ROUTE OUTFLOW FROM RRW2A TO CONFLUENCE WITH OUTFLOW FROM RRX1 IN PROPOSED CH
 167          KM    STRUCTURE ID(s): W140
 168          KM    Slope=(1221.6 - 1184.0) / 2235.9
 169          RS       1    FLOW      -1
 170          RC    0.02    0.02    0.02  2235.90.016851   106.0
 171          RX     0.0    18.0    18.0    18.0    98.0    98.0    98.0   116.0
 172          RY   106.0   100.0   100.0   100.0   100.0   100.0   100.0   106.0
              *

 173          KK      X1   BASIN
 174          KM   BASIN X1
 175          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 176          KM    L=      2.3  Lca=      1.4   S=  457.0  Kn= .050  LAG=  35.0
 177          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 178          BA     .77
 179          LG     .28     .35    4.30     .43   12.00
 180          UI     74.    129.    301.    465.    569.    776.    674.    466.    404.    351.
 181          UI    300.    248.    196.    175.    151.    117.     95.     82.     70.     57.
 182          UI     50.     36.     36.     35.     14.     14.     14.     14.     14.     14.
 183          UI     14.     14.      0.      0.      0.      0.      0.      0.      0.      0.
              *
1                                          HEC-1 INPUT                                          PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 184          KK  X1-X1I   ROUTE
 185          KM   PROPOSED CHANNEL
 186          KM    ROUTE OUTFLOW FROM RRX1 TO CONFLUENCE WITH PROPOSED NEW CHANNEL FROM RRW2A
 187          KM    STRUCTURE ID(s): X110
 188          KM    Slope=(1198.1 - 1184.0) /  861.7
 189          RS       1    FLOW      -1
 190          RC    0.02    0.02    0.02   861.7 0.01639   105.0
 191          RX     0.0    15.0    15.0    15.0    35.0    35.0    35.0    50.0
 192          RY   105.0   100.0   100.0   100.0   100.0   100.0   100.0   105.0
              *
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```
193          KK    CX1I COMBINE
194          KM    COMBINE ROUTED FLOW FROM RRX1 AND RRW2A
195          HC       2
             *

196          KK  X1I-1W   ROUTE
197          KM   PROPOSED CHANNEL
198          KM    ROUTE OUTFLOW FROM RRX1 TO FRS NO. 3 VIA PROPOSED NEW CHANNEL
199          KM    STRUCTURE ID(s): W150
200          KM    Slope=(1184.0 - 1152.1) / 1648.8
201          RS       1    FLOW      -1
202          RC    0.02    0.02    0.02  1648.80.019313   106.0
203          RX     0.0    18.0    18.0    18.0   118.0   118.0   118.0   136.0
204          RY   106.0   100.0   100.0   100.0   100.0   100.0   100.0   106.0
             *

205          KK      W2   BASIN
206          KM   BASIN W2
207          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
208          KM    L=      2.3  Lca=      1.1   S=  422.0  Kn= .050  LAG=  33.0
209          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
210          BA    2.69
211          LG     .27     .35    4.19     .40    3.00
212          UI    274.    522.   1229.   1805.   2237.   3080.   1992.   1608.   1388.   1185.
213          UI    993.    777.    656.    588.    442.    351.    306.    255.    210.    170.
214          UI    134.    134.     99.     53.     53.     53.     53.     53.     53.     53.
215          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
             *

216          KK      Y1   BASIN
217          KM   BASIN Y1
218          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
219          KM    L=      1.3  Lca=       .5   S=  789.0  Kn= .050  LAG=  17.0
220          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
221          BA     .57
222          LG     .38     .35    4.24     .42   12.00
223          UI    160.    607.   1074.    802.    556.    393.    270.    184.    131.     88.
224          UI     57.     43.     22.     22.     22.      0.      0.      0.      0.      0.
225          ZZ
```

```
1
                 SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

    55        S800
                 V
                 V
    64      800CHL
                 .
                 .
    73           .        S810
                 .           V
                 .           V
    82           .      810CHL
                 .           .
                 .           .
    91      ALL800............
                 .
                 .
    94           .          S1
                 .           .
                 .           .
   106           .           .          U1
                 .           .           .
                 .           .           .
   118           .           .           .          V1
                 .           .           .           .
                 .           .           .           .
   129           .           .           .           .          W1
                 .           .           .           .           V
                 .           .           .           .           V
   140           .           .           .           .       W1-1W
                 .           .           .           .           .
                 .           .           .           .           .
   149           .           .           .           .           .         W2A
                 .           .           .           .           .           .
                 .           .           .           .           .           .
   161           .           .           .           .        CW2A............
                 .           .           .           .           V
                 .           .           .           .           V
   164           .           .           .           .      W2AX1I
                 .           .           .           .           .
                 .           .           .           .           .
   173           .           .           .           .           .          X1
                 .           .           .           .           .           V
                 .           .           .           .           .           V
   184           .           .           .           .           .      X1-X1I
                 .           .           .           .           .           .
                 .           .           .           .           .           .
   193           .           .           .           .        CX1I............
                 .           .           .           .           V
                 .           .           .           .           V
   196           .           .           .           .      X1I-1W
```

```
                .          .          .          .          .
                .          .          .          .          .
   205          .          .          .          .          .          W2
                .          .          .          .          .           .
                .          .          .          .          .           .
   216          .          .          .          .          .           .          Y1

 (***) RUNOFF ALSO COMPUTED AT THIS LOCATION
1*****************************************                                                    ****************************************
 *                                       *                                                    *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *                                                    *   U.S. ARMY CORPS OF ENGINEERS       *
 *              JUN   1998               *                                                    *   HYDROLOGIC ENGINEERING CENTER      *
 *            VERSION 4.1                *                                                    *         609 SECOND STREET            *
 *                                       *                                                    *      DAVIS, CALIFORNIA 95616         *
 *  RUN DATE   19APR06  TIME  16:16:13   *                                                    *          (916) 756-1104              *
 *                                       *                                                    *                                      *
 *****************************************                                                    ****************************************
```

HYDROLOGY FOR STEP 2 ALTERNATIVES FOR SUN VALLEY ADMP
- FRS NO. 2 & 3 SUBBAREA
- ALTERNATIVE C

Alternative Description
Alternative C is based on the concept of an excavated concrete-lined channel from the apex to the outfall, without providing any detention basin is at the apex. To address sedimentation associated with the alluvial fan systems, sedimentation basins are provided throughout the system. The excavated concrete channels are complemented with a 120-foot wide adjacent riparian preservation corridor.

JE FULLER/ HYDROLOGY & GEOMORPHOLOGY, INC.
JANUARY 2006

MODEL BASED ON S800 SERIES PORTIONS OF:

A4_EX6 - SVADMP - Area 4 Existing Conditions 100-yr 6-hr
Major Basin: 01
100 Year - Return Period
6 Hour Storm
Multiple Storms
Unit Hydrograph: S-Graph
10/04/2005

AND BASED ON PORTIONS OF:

WHITE TANK WASH FDS (ALPHA, 1996)

```
  34 IO          OUTPUT CONTROL VARIABLES
                       IPRNT           5  PRINT CONTROL
                       IPLOT           0  PLOT CONTROL
                       QSCAL          0.  HYDROGRAPH PLOT SCALE

     IT          HYDROGRAPH TIME DATA
                        NMIN           5  MINUTES IN COMPUTATION INTERVAL
                       IDATE      1JAN99  STARTING DATE
                       ITIME        1200  STARTING TIME
                          NQ        2000  NUMBER OF HYDROGRAPH ORDINATES
                      NDDATE      8JAN99  ENDING DATE
                      NDTIME        1035  ENDING TIME
                      ICENT          19  CENTURY MARK

                 COMPUTATION INTERVAL     .08 HOURS
                      TOTAL TIME BASE  166.58 HOURS

          ENGLISH UNITS
               DRAINAGE AREA          SQUARE MILES
               PRECIPITATION DEPTH    INCHES
               LENGTH, ELEVATION      FEET
               FLOW                   CUBIC FEET PER SECOND
               STORAGE VOLUME         ACRE-FEET
               SURFACE AREA           ACRES
               TEMPERATURE            DEGREES FAHRENHEIT

  35 JD          INDEX STORM NO. 1
                        STRM        3.20  PRECIPITATION DEPTH
                        TRDA         .10  TRANSPOSITION DRAINAGE AREA

  36 PI            PRECIPITATION PATTERN
                       .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                       .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                       .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                       .00       .00       .00       .01       .01       .01       .01       .01       .01       .03
                       .03       .03       .05       .05       .05       .15       .15       .15       .03       .03
                       .03       .01       .01       .01       .01       .01       .01       .00       .00       .00
                       .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                       .00       .00

  39 JD          INDEX STORM NO. 2
```

```
                    STRM        3.18  PRECIPITATION DEPTH
                    TRDA         .50  TRANSPOSITION DRAINAGE AREA

40 PI            PRECIPITATION PATTERN
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00       .00       .01       .01       .01       .01       .01       .01       .03
                    .03       .03       .05       .05       .05       .15       .15       .15       .03       .03
                    .03       .01       .01       .01       .01       .01       .01       .00       .00       .00
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00

43 JD          INDEX STORM NO. 3
                    STRM        3.12  PRECIPITATION DEPTH
                    TRDA        2.80  TRANSPOSITION DRAINAGE AREA

44 PI            PRECIPITATION PATTERN
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00       .00       .01       .01       .01       .01       .01       .01       .03
                    .03       .03       .07       .07       .07       .08       .08       .08       .05       .05
                    .05       .02       .02       .02       .01       .01       .01       .00       .00       .00
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00

47 JD          INDEX STORM NO. 4
                    STRM        2.95  PRECIPITATION DEPTH
                    TRDA       16.00  TRANSPOSITION DRAINAGE AREA

48 PI            PRECIPITATION PATTERN
                    .01       .01       .00       .00       .00       .00       .00       .00       .00       .01
                    .01       .01       .00       .01       .00       .00       .00       .00       .00       .00
                    .00       .00       .01       .00       .00       .00       .00       .01       .01       .01
                    .01       .01       .01       .01       .01       .01       .02       .02       .02       .03
                    .03       .03       .06       .06       .06       .07       .07       .07       .04       .04
                    .04       .02       .02       .02       .01       .01       .01       .01       .01       .01
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00

51 JD          INDEX STORM NO. 5
                    STRM        2.59  PRECIPITATION DEPTH
                    TRDA       90.00  TRANSPOSITION DRAINAGE AREA

52 PI            PRECIPITATION PATTERN
                    .01       .01       .01       .00       .00       .00       .01       .01       .01       .01
                    .01       .01       .01       .01       .01       .01       .01       .01       .01       .01
                    .01       .01       .01       .01       .01       .01       .01       .01       .01       .01
                    .01       .01       .01       .01       .01       .01       .02       .02       .02       .03
                    .03       .03       .05       .05       .05       .05       .05       .05       .04       .04
                    .04       .02       .02       .02       .02       .02       .02       .01       .01       .01
                    .01       .01       .01       .01       .01       .01       .01       .01       .01       .01
                    .01       .01
1
                                                RUNOFF SUMMARY
                                        FLOW IN CUBIC FEET PER SECOND
                                      TIME IN HOURS,  AREA IN SQUARE MILES

                                      PEAK   TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM     TIME OF
        OPERATION        STATION      FLOW    PEAK                                           AREA      STAGE     MAX STAGE
+                                                          6-HOUR     24-HOUR     72-HOUR

        HYDROGRAPH AT
+                          S800       595.   4.25          74.         18.          6.        .43

        ROUTED TO
+                        800CHL       590.   4.25          74.         18.          6.        .43

        HYDROGRAPH AT
+                          S810      1355.   4.42         225.         56.         19.       1.61

        ROUTED TO
+                        810CHL      1359.   4.42         225.         56.         19.       1.61

        2 COMBINED AT
+                        ALL800      1647.   4.42         279.         70.         23.       2.04

        HYDROGRAPH AT
+                            S1      1537.   4.33         238.         60.         20.       1.46

        HYDROGRAPH AT
+                            U1      1553.   4.33         239.         60.         20.       1.39

        HYDROGRAPH AT
+                            V1       707.   4.42         114.         29.         10.        .70

        HYDROGRAPH AT
+                            W1      2581.   4.42         533.        134.         45.       3.95

        ROUTED TO
+                         W1-1W      2554.   4.58         532.        134.         45.       3.95

        HYDROGRAPH AT
+                           W2A       818.   4.33         120.         30.         10.        .77
```

```
          2 COMBINED AT
+                          CW2A     2943.    4.50        613.        155.        52.       4.72

          ROUTED TO
+                        W2AX1I     2921.    4.50        612.        155.        52.       4.72

          HYDROGRAPH AT
+                            X1      818.    4.33        120.         30.        10.        .77

          ROUTED TO
+                        X1-X1I      816.    4.33        120.         30.        10.        .77

          2 COMBINED AT
+                          CX1I     3304.    4.50        690.        174.        58.       5.49

          ROUTED TO
+                        X1I-1W     3288.    4.50        690.        174.        58.       5.49

          HYDROGRAPH AT
+                            W2     1993.    4.33        317.         79.        26.       2.69

          HYDROGRAPH AT
+                            Y1     1029.    4.08         91.         23.         8.        .57

 *** NORMAL END OF HEC-1 ***
```

```
1*****************************************                    *****************************************
 *                                       *                    *                                       *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *                    *   U.S. ARMY CORPS OF ENGINEERS        *
 *             JUN   1998                *                    *   HYDROLOGIC ENGINEERING CENTER       *
 *           VERSION 4.1                 *                    *          609 SECOND STREET            *
 *                                       *                    *       DAVIS, CALIFORNIA 95616         *
 *  RUN DATE   19APR06  TIME  16:16:13   *                    *           (916) 756-1104              *
 *                                       *                    *                                       *
 *****************************************                    *****************************************

X     X  XXXXXXX   XXXXX           X
X     X  X        X     X         XX
X     X  X        X                X
XXXXXXX  XXXX     X        XXXXX   X
X     X  X        X                X
X     X  X        X     X          X
X     X  XXXXXXX   XXXXX          XXX

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                          HEC-1 INPUT                                          PAGE  1

      LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

        1           ID    HYDROLOGY FOR STEP 2 ALTERNATIVES FOR SUN VALLEY ADMP
        2           ID       - FRS NO. 2 & 3 SUBBAREA
        3           ID       - ALTERNATIVE C
        4           ID
        5           ID   Alternative Description
        6           ID   Alternative C is based on the concept of an excavated concrete-lined
        7           ID   channel from the apex to the outfall, without providing any detention
        8           ID   basin is at the apex.  To address sedimentation associated with the
        9           ID   alluvial fan systems, sedimentation basins are provided throughout the
       10           ID   system.  The excavated concrete channels are complemented with a 120-foot
       11           ID   wide adjacent riparian preservation corridor.
       12           ID
       13           ID
       14           ID    JE FULLER/ HYDROLOGY & GEOMORPHOLOGY, INC.
       15           ID    JANUARY 2006
       16           ID
       17           ID    MODEL BASED ON S800 SERIES PORTIONS OF:
       18           ID
       19           ID        FCDMC
       20           ID        A4_EX24 - SVADMP - Area 4 Existing Conditions 100-yr 24-hr
       21           ID        Major Basin: 01
       22           ID        100 Year - Return Period
       23           ID        24 Hour Storm
       24           ID        Multiple Storms
       25           ID        Unit Hydrograph: S-Graph
       26           ID        10/04/2005
       27           ID
       28           ID
       29           ID    AND BASED ON PORTIONS OF:
       30           ID
       31           ID         WHITE TANK WASH FDS (ALPHA, 1996)
       32           ID
       33           IT       5  1JAN99    1200    2000
       34           IN      15
       35           IO       5
                   *DIAGRAM
                   *
       36           JD   4.198  0.1000
       37           PC   0.000   0.002   0.005   0.008   0.011   0.014   0.017   0.020   0.023   0.026
       38           PC   0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056   0.060
       39           PC   0.064   0.068   0.072   0.076   0.080   0.085   0.090   0.095   0.100   0.105
       40           PC   0.110   0.115   0.120   0.126   0.133   0.140   0.147   0.155   0.163   0.172
       41           PC   0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
       42           PC   0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
       43           PC   0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
       44           PC   0.913   0.918   0.922   0.926   0.930   0.934   0.938   0.942   0.946   0.950
       45           PC   0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977   0.980
       46           PC   0.983   0.986   0.989   0.992   0.995   0.998   1.000
       47           JD   3.990    10.0
       48           JD   3.780    30.0
                   *
1                                          HEC-1 INPUT                                          PAGE  2

      LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

       49           KK    S800   BASIN
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```
 50          KM        Compute runoff from subbasin 800
 51          BA   0.431
 52          LG    0.27    0.35    4.60    0.34       9
 53          UI      49     118     252     353     489     442     297     255     213     170
 54          UI     134     113      92      69      57      48      38      29      24      25
 55          UI      12       9      10       9      10       9      10       0       0       0
 56          UI       0       0       0       0       0       0       0       0       0       0
 57          UI       0       0       0       0       0       0       0       0       0       0
             *

 58          KK  800CHL   ROUTE
 59          KM   PROPOSED CHANNEL
 60          KM    ROUTE S800 RUNOFF FROM APEX TO FRS
 61          KM    STRUCTURE ID(s): 80010
 62          KM    Slope=(1129.3 - 1105.8) / 1366.3
 63          RS       3    FLOW      -1
 64          RC    0.02    0.02    0.02  1366.30.017151   104.5
 65          RX     0.0    13.5    13.5    13.5    28.5    28.5    28.5    42.0
 66          RY   104.5   100.0   100.0   100.0   100.0   100.0   100.0   104.5
             *

 67          KK    S810   BASIN
 68          KM        Compute runoff from subbasin 810
 69          BA   1.607
 70          LG    0.30    0.35    4.65    0.32       4
 71          UI     140     200     493     790     997    1196    1589    1066     843     750
 72          UI     668     569     489     397     336     309     256     202     176     155
 73          UI     130     106     102      68      68      69      46      27      27      27
 74          UI      26      27      27      27      27       0       0       0       0       0
 75          UI       0       0       0       0       0       0       0       0       0       0
             *

 76          KK  810CHL   ROUTE
 77          KM   PROPOSED CHANNEL
 78          KM    ROUTE S810 RUNOFF FROM APEX TO FRS
 79          KM    STRUCTURE ID(s): 81010
 80          KM    Slope=(1133.1 - 1105.8) / 2054.8
 81          RS       3    FLOW      -1
 82          RC    0.02    0.02    0.02  2054.80.013242   106.0
 83          RX     0.0    18.0    18.0    18.0    43.0    43.0    43.0    61.0
 84          RY   106.0   100.0   100.0   100.0   100.0   100.0   100.0   106.0
             *

 85          KK  ALL800 COMBINE
 86          KM        combination of all 800 series hydrographs AT FRS NO 2.
 87          HC       2
             *
             * THE FOLLOWING PORTIONS ARE FROM THE WHITE TANK WASH FDS (ALPHA, 1996)
             *
             * White Tanks Wash Flood Insurance Study - 7-July-93 - JRB
             * ALPHA Engineering Group Inc. - 5 minute interval - 24 Hour Storm
             *
1                                    HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 88          KK      S1   BASIN
 89          KM   BASIN S1
 90          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 91          KM    L=      2.4  Lca=       .7   S=  140.0  Kn= .050  LAG=  33.0
 92          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 93          BA    1.46
 94          LG     .19     .35    3.77     .31    7.00
 95          UI    149.    284.    668.    981.   1216.   1674.   1082.    874.    754.    644.
 96          UI    540.    422.    356.    320.    240.    191.    166.    138.    114.     92.
 97          UI     73.     73.     54.     29.     29.     29.     29.     29.     29.     29.
 98          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
 99          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
             *

100          KK      U1   BASIN
101          KM   BASIN U1
102          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
103          KM    L=      2.1  Lca=      1.1   S=  377.0  Kn= .050  LAG=  32.0
104          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
105          BA    1.39
106          LG     .26     .37    4.74     .22    8.00
107          UI    147.    294.    688.    987.   1245.   1598.   1002.    831.    714.    602.
108          UI    493.    381.    338.    278.    212.    177.    159.    112.    107.     72.
109          UI     72.     67.     28.     28.     28.     28.     28.     28.     28.      0.
110          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
111          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
             *

112          KK      V1   BASIN
113          KM   BASIN V1
114          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
115          KM    L=      2.7  Lca=      1.6   S=  389.0  Kn= .050  LAG=  40.0
116          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
117          BA     .70
118          LG     .26     .35    4.24     .41   13.00
119          UI     59.     76.    200.    320.    406.    481.    660.    503.    372.    329.
120          UI    290.    254.    221.    183.    150.    138.    123.     97.     77.     70.
121          UI     64.     49.     45.     39.     29.     29.     29.     18.     11.     11.
```

```
 122          UI     11.     11.     11.     11.     11.     11.      0.      0.      0.      0.
              *

 123          KK      W1   BASIN
 124          KM   BASIN W1
 125          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 126          KM    L=      3.3  Lca=      1.6   S=  522.0  Kn= .050  LAG=  42.0
 127          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 128          BA    3.95
 129          LG     .30     .35    4.24     .40   15.00
 130          UI    317.    357.   1030.   1615.   2095.   2456.   3182.   3308.   2176.   1862.
 131          UI   1658.   1480.   1292.   1120.    914.    790.    722.    635.    518.    405.
 132          UI    375.    347.    270.    243.    223.    155.    155.    155.    129.     61.
 133          UI     61.     61.     61.     61.     61.     61.     61.     61.      0.      0.
              *
1                                                HEC-1 INPUT                                                PAGE  4

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 134          KK   W1-1W   ROUTE
 135          KM   PROPOSED CHANNEL
 136          KM    ROUTE OUTFLOW FROM RRW1 VIA EAST CHANNEL ALIGNMENT THRU W2 TO INSET FAN APEX
 137          KM    STRUCTURE ID(s): W130, W135
 138          KM    Slope=(1361.3 - 1221.6) / 7444.4
 139          RS       3    FLOW      -1
 140          RC    0.02    0.02    0.02  7444.40.018766   106.0
 141          RX     0.0    18.0    18.0    18.0    98.0    98.0    98.0   116.0
 142          RY   106.0   100.0   100.0   100.0   100.0   100.0   100.0   106.0
              *

 143          KK     W2A   BASIN
 144          KM   ASSUMED SAME AS BASIN X1 - USED TO REPRESENT HILLSLOPE WATERSHED CONTRIBUTING
 145          KM   TO EAST SIDE OF SKYLINE FAN
 146          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 147          KM    L=      2.3  Lca=      1.4   S=  457.0  Kn= .050  LAG=  35.0
 148          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 149          BA     .77
 150          LG     .28     .35    4.30     .43   12.00
 151          UI     74.    129.    301.    465.    569.    776.    674.    466.    404.    351.
 152          UI    300.    248.    196.    175.    151.    117.     95.     82.     70.     57.
 153          UI     50.     36.     36.     35.     14.     14.     14.     14.     14.     14.
 154          UI     14.     14.      0.      0.      0.      0.      0.      0.      0.      0.
              *

 155          KK    CW2A COMBINE
 156          KM    COMBINE RUNOFF FROM HILLSLOPE WATERSHED WITH ROUTED FLOW FROM SKYLINE FAN AP
 157          HC       2
              *

 158          KK  W2AX1I   ROUTE
 159          KM   PROPOSED CHANNEL
 160          KM    ROUTE OUTFLOW FROM RRW2A TO CONFLUENCE WITH OUTFLOW FROM RRX1 IN PROPOSED CH
 161          KM    STRUCTURE ID(s): W140
 162          KM    Slope=(1221.6 - 1184.0) / 2235.9
 163          RS       1    FLOW      -1
 164          RC    0.02    0.02    0.02  2235.90.016851   106.0
 165          RX     0.0    18.0    18.0    18.0    98.0    98.0    98.0   116.0
 166          RY   106.0   100.0   100.0   100.0   100.0   100.0   100.0   106.0
              *

 167          KK      X1   BASIN
 168          KM   BASIN X1
 169          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 170          KM    L=      2.3  Lca=      1.4   S=  457.0  Kn= .050  LAG=  35.0
 171          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
 172          BA     .77
 173          LG     .28     .35    4.30     .43   12.00
 174          UI     74.    129.    301.    465.    569.    776.    674.    466.    404.    351.
 175          UI    300.    248.    196.    175.    151.    117.     95.     82.     70.     57.
 176          UI     50.     36.     36.     35.     14.     14.     14.     14.     14.     14.
 177          UI     14.     14.      0.      0.      0.      0.      0.      0.      0.      0.
              *
1                                                HEC-1 INPUT                                                PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 178          KK  X1-X1I   ROUTE
 179          KM   PROPOSED CHANNEL
 180          KM    ROUTE OUTFLOW FROM RRX1 TO CONFLUENCE WITH PROPOSED NEW CHANNEL FROM RRW2A
 181          KM    STRUCTURE ID(s): X110
 182          KM    Slope=(1198.1 - 1184.0) /  861.7
 183          RS       1    FLOW      -1
 184          RC    0.02    0.02    0.02   861.7 0.01639   105.0
 185          RX     0.0    15.0    15.0    15.0    35.0    35.0    35.0    50.0
 186          RY   105.0   100.0   100.0   100.0   100.0   100.0   100.0   105.0
              *

 187          KK    CX1I COMBINE
 188          KM    COMBINE ROUTED FLOW FROM RRX1 AND RRW2A
 189          HC       2
              *

 190          KK  X1I-1W   ROUTE
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191          KM   PROPOSED CHANNEL
192          KM    ROUTE OUTFLOW FROM RRX1 TO FRS NO. 3 VIA PROPOSED NEW CHANNEL
193          KM    STRUCTURE ID(s): W150
194          KM    Slope=(1184.0 - 1152.1) / 1648.8
195          RS       1    FLOW      -1
196          RC    0.02    0.02    0.02  1648.80.019313   106.0
197          RX     0.0    18.0    18.0    18.0   118.0   118.0   118.0   136.0
198          RY   106.0   100.0   100.0   100.0   100.0   100.0   100.0   106.0
             *

199          KK      W2   BASIN
200          KM   BASIN W2
201          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
202          KM    L=      2.3  Lca=      1.1   S=  422.0  Kn= .050  LAG=  33.0
203          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
204          BA    2.69
205          LG     .27     .35    4.19     .40    3.00
206          UI    274.    522.   1229.   1805.   2237.   3080.   1992.   1608.   1388.   1185.
207          UI    993.    777.    656.    588.    442.    351.    306.    255.    210.    170.
208          UI    134.    134.     99.     53.     53.     53.     53.     53.     53.     53.
209          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
             *

210          KK      Y1   BASIN
211          KM   BASIN Y1
212          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
213          KM    L=      1.3  Lca=       .5   S=  789.0  Kn= .050  LAG=  17.0
214          KM    PHOENIX MOUNTAIN S-GRAPH WAS USED FOR THIS BASIN
215          BA     .57
216          LG     .38     .35    4.24     .42   12.00
217          UI    160.    607.   1074.    802.    556.    393.    270.    184.    131.     88.
218          UI     57.     43.     22.     22.     22.      0.      0.      0.      0.      0.
219          ZZ
1
                SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

    49        S800
                V
                V
    58      800CHL
                .
                .
    67          .        S810
                .           V
                .           V
    76          .      810CHL
                .           .
                .           .
    85      ALL800............
                .
                .
    88          .          S1
                .           .
                .           .
   100          .           .          U1
                .           .           .
                .           .           .
   112          .           .           .          V1
                .           .           .           .
                .           .           .           .
   123          .           .           .           .          W1
                .           .           .           .           V
                .           .           .           .           V
   134          .           .           .           .       W1-1W
                .           .           .           .           .
                .           .           .           .           .
   143          .           .           .           .           .         W2A
                .           .           .           .           .           .
                .           .           .           .           .           .
   155          .           .           .           .        CW2A...........
                .           .           .           .           V
                .           .           .           .           V
   158          .           .           .           .      W2AX1I
                .           .           .           .           .
                .           .           .           .           .
   167          .           .           .           .           .          X1
                .           .           .           .           .           V
                .           .           .           .           .           V
   178          .           .           .           .           .      X1-X1I
                .           .           .           .           .           .
                .           .           .           .           .           .
   187          .           .           .           .        CX1I...........
                .           .           .           .           V
                .           .           .           .           V
   190          .           .           .           .      X1I-1W
                .           .           .           .           .
                .           .           .           .           .
   199          .           .           .           .           .          W2
                .           .           .           .           .           .
                .           .           .           .           .           .
   210          .           .           .           .           .           .          Y1
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 (***) RUNOFF ALSO COMPUTED AT THIS LOCATION
1****************************************                                    ****************************************
 *                                      *                                    *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                    *    U.S. ARMY CORPS OF ENGINEERS      *
 *              JUN   1998              *                                    *    HYDROLOGIC ENGINEERING CENTER     *
 *           VERSION 4.1                *                                    *          609 SECOND STREET           *
 *                                      *                                    *       DAVIS, CALIFORNIA 95616        *
 *  RUN DATE   19APR06  TIME  16:16:13  *                                    *           (916) 756-1104             *
 *                                      *                                    *                                      *
 ****************************************                                    ****************************************
```

HYDROLOGY FOR STEP 2 ALTERNATIVES FOR SUN VALLEY ADMP
- FRS NO. 2 & 3 SUBBAREA
- ALTERNATIVE C

Alternative Description
Alternative C is based on the concept of an excavated concrete-lined channel from the apex to the outfall, without providing any detention basin is at the apex. To address sedimentation associated with the alluvial fan systems, sedimentation basins are provided throughout the system. The excavated concrete channels are complemented with a 120-foot wide adjacent riparian preservation corridor.

JE FULLER/ HYDROLOGY & GEOMORPHOLOGY, INC.
JANUARY 2006

MODEL BASED ON S800 SERIES PORTIONS OF:

FCDMC
A4_EX24 - SVADMP - Area 4 Existing Conditions 100-yr 24-hr
Major Basin: 01
100 Year - Return Period
24 Hour Storm
Multiple Storms
Unit Hydrograph: S-Graph
10/04/2005

AND BASED ON PORTIONS OF:

WHITE TANK WASH FDS (ALPHA, 1996)

```
 35 IO          OUTPUT CONTROL VARIABLES
                      IPRNT          5  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE

    IT          HYDROGRAPH TIME DATA
                       NMIN          5  MINUTES IN COMPUTATION INTERVAL
                      IDATE     1JAN99  STARTING DATE
                      ITIME       1200  STARTING TIME
                         NQ       2000  NUMBER OF HYDROGRAPH ORDINATES
                     NDDATE     8JAN99  ENDING DATE
                     NDTIME       1035  ENDING TIME
                      ICENT         19  CENTURY MARK

                 COMPUTATION INTERVAL     .08 HOURS
                      TOTAL TIME BASE  166.58 HOURS

         ENGLISH UNITS
              DRAINAGE AREA          SQUARE MILES
              PRECIPITATION DEPTH    INCHES
              LENGTH, ELEVATION      FEET
              FLOW                   CUBIC FEET PER SECOND
              STORAGE VOLUME         ACRE-FEET
              SURFACE AREA           ACRES
              TEMPERATURE            DEGREES FAHRENHEIT

 36 JD          INDEX STORM NO. 1
                       STRM       4.20  PRECIPITATION DEPTH
                       TRDA        .10  TRANSPOSITION DRAINAGE AREA

 37 PI            PRECIPITATION PATTERN
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
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                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
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                      .00       .00       .00       .00       .00       .00       .00       .01       .00       .01
                      .01       .01       .01       .01       .01       .01       .01       .01       .03       .03
                      .03       .09       .09       .09       .01       .01       .01       .01       .01       .01
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                .01       .01       .01       .01       .01       .01       .00       .00       .00       .00
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                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00

 47 JD        INDEX STORM NO. 2
                STRM        3.99  PRECIPITATION DEPTH
                TRDA       10.00  TRANSPOSITION DRAINAGE AREA

  0 PI          PRECIPITATION PATTERN
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
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                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
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                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .01       .00       .01
                .01       .01       .01       .01       .01       .01       .01       .01       .03       .03
                .03       .09       .09       .09       .01       .01       .01       .01       .01       .01
                .01       .01       .01       .01       .01       .01       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
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                .00       .00       .00       .00       .00       .00       .00       .00

 48 JD        INDEX STORM NO. 3
                STRM        3.78  PRECIPITATION DEPTH
                TRDA       30.00  TRANSPOSITION DRAINAGE AREA

  0 PI          PRECIPITATION PATTERN
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .01       .00       .01
                .01       .01       .01       .01       .01       .01       .01       .01       .03       .03
                .03       .09       .09       .09       .01       .01       .01       .01       .01       .01
                .01       .01       .01       .01       .01       .01       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
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                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
1
                                                RUNOFF SUMMARY
                                        FLOW IN CUBIC FEET PER SECOND
                                      TIME IN HOURS,  AREA IN SQUARE MILES

                                  PEAK   TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM     TIME OF
        OPERATION       STATION   FLOW    PEAK                                            AREA      STAGE     MAX STAGE
+                                                      6-HOUR     24-HOUR     72-HOUR

        HYDROGRAPH AT
+                        S800     474.   12.25          61.         16.          5.        .43
```

	ROUTED TO							
+		800CHL	471.	12.25	61.	16.	5.	.43
	HYDROGRAPH AT							
+		S810	1387.	12.33	209.	54.	18.	1.61
	ROUTED TO							
+		810CHL	1407.	12.42	209.	54.	18.	1.61
	2 COMBINED AT							
+		ALL800	1784.	12.42	268.	70.	23.	2.04
	HYDROGRAPH AT							
+		S1	1520.	12.33	213.	56.	19.	1.46
	HYDROGRAPH AT							
+		U1	1540.	12.25	214.	57.	19.	1.39
	HYDROGRAPH AT							
+		V1	599.	12.42	99.	28.	9.	.70
	HYDROGRAPH AT							
+		W1	3228.	12.42	562.	159.	53.	3.95
	ROUTED TO							
+		W1-1W	3157.	12.50	561.	159.	53.	3.95
	HYDROGRAPH AT							
+		W2A	714.	12.33	106.	29.	10.	.77
	2 COMBINED AT							
+		CW2A	3686.	12.50	663.	187.	62.	4.72
	ROUTED TO							
+		W2AX1I	3678.	12.50	662.	187.	62.	4.72
	HYDROGRAPH AT							
+		X1	714.	12.33	106.	29.	10.	.77
	ROUTED TO							
+		X1-X1I	714.	12.33	106.	29.	10.	.77
	2 COMBINED AT							
+		CX1I	4227.	12.50	763.	215.	72.	5.49
	ROUTED TO							
+		X1I-1W	4236.	12.50	763.	215.	72.	5.49
	HYDROGRAPH AT							
+		W2	2472.	12.33	325.	84.	28.	2.69
	HYDROGRAPH AT							
+		Y1	848.	12.08	79.	22.	7.	.57

*** NORMAL END OF HEC-1 ***