

**AMENDMENT REPORT
FOR
AMOLE-HUBBELL
DRAINAGE MANAGEMENT PLAN
(SNOW VISTA BASIN & TOWER SAGE BASIN)**



NOVEMBER 2000

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SUMMARY

Under "existing drainage conditions", Subasin 190 is part of the Tower-Sage Drainage Basin. (Figure 4). Under "developed drainage conditions", subasin 190 was placed in the Snow Vista Basin according to the Amole-Hubbell Drainage Management Plan (Figure 5).

As a result of the existing grades in the area and more specifically the existing low lying area east of the present mobile home park in 102nd street midway between Central Avenue and Sunset Gardens Road, it has been proposed to split Subasin 190 into two subasins and remove approximately 40 percent of the eastern portion of subasin 190 (revised subasin 190B) from the Snow Vista Basin and make it part of the Tower-Sage Basin. The remaining 60 percent of subasin 190 (revised subasin 190A) will remain in the Snow Vista Basin as shown and will be allowed to drain to the Snow Vista Sedimentation Pond through the currently developing Sunrise Ranch Unit 2 subdivision (Figure 6). The mobile home park site will still be restricted to an allowable discharge rate of 1.29 cfs/acre (10.32 cfs) as was previously determined for subasin 190 as part of the Snow Vista Drainage Basin.

This change will result in an overall decrease in discharge to the Snow Vista Basin and, in the future, to a small increase in runoff to the Tower Sage Basin. At the present time, all runoff from Subasin 190 B (mobile home park) is contained within an onsite retention pond. In the future if the mobile home park is redeveloped, the increase in discharge from subasin 190B will increase the discharge at the Eucariz / 98th street intersection from an estimated 185.2 cfs to 196.4 cfs. (This increase includes an adjustment to the total area and land treatment value for Subasin A2-D) This results in a total volume increase to the Tower Detention Pond of 1.07 acre feet with an accompanying minimal increase in the outflow rate from 24.77 cfs to 24.89 cfs. This translates to a rise in the maximum water surface elevation by 0.138 feet (2 inches), from 87.73' to 87.868'.

I. PURPOSE FOR AMENDMENT

The proposed Sunrise Ranch Subdivision located in the southwest quadrant of the Sunset Gardens-98th street intersection covers an area of approximately 30.58 acres (Figure 1: Vicinity Map). The site is to be developed into a 184 single family residential community. The southwest corner of the site lies within a Zone AO floodplain as shown on FEMA Panel 35001 C 0328. The eastern portion of the site between the PNM substation and 98th street lies within the Tower Sage Basin and the western portion lies within the Snow Vista Basin (Figure 4). The purpose of this report is to amend the Tower Sage Basin and Snow Vista Basin boundary line as it relates to subbasin 190, as defined in AMAFCA's Amole-Hubbell Drainage Management Plan dated July 22, 1999.

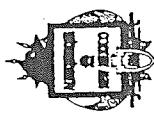
II. EXISTING DRAINAGE CONDITIONS

Under existing conditions runoff from sub basin 190 is in a general eastward direction toward 98th street which is part of the Tower Sage Basin (Figure 4). Field observation verified this fact and that there is an existing low lying area east of the mobile home park in 102nd street midway between Sunset Gardens Road and Central Avenue. In addition there is an existing berm along the south side of the Sunset Gardens right-of-way that prevents runoff from entering the Snow Vista Basin for the eastern half of subbasin 190, which includes the existing mobile home park. The existing boundary line in Figure 4 shows that Sub Basin 190 is more clearly a part of the Tower Sage Basin instead of the Snow Vista Basin. Further research into the City SAD 222 file found an exhibit with reference to subbasin 190 that stated, "Design Analysis Report for Snow Vista channel indicated some flows from this area could be directed to Snow Vista channel. Sub basin 190 represents this 20 +/- acres. Exact basin boundaries or conveyance route unknown" (Figure 3). This indicates the uncertain nature of the final basin boundary line.

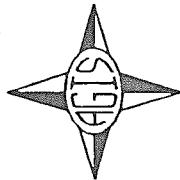
III. REVISED DRAINAGE CONDITIONS SUBASIN 190

Most of the Sunrise Ranch Unit 2 subdivision lies within the Snow Vista Basin 200. Unit 2 was graded to minimize retaining walls and to match the existing grade along the property boundaries as much as possible. Given this design criteria it is not physically possible to grade that portion of Sunrise Ranch that lies within Subbasin 200 to allow for surface drainage from sub basin 190 through our site to the Snow Vista Sedimentation Pond (Figure 5). As an alternative to an expensive storm drain system through Unit 2 which would have to extend north to the low spot in 102nd street, runoff from the existing mobile home park should be diverted to the Tower Sage Basin in 98th street. This concept has City approval and the SAD 222 Engineers.

Under existing conditions runoff from mobile home park (Sub Basin 190B) is conveyed to a retention pond located within the site midway along the east property line. If this site were to redevelop into a different use, the developed flows should still be restricted to the allowable discharge rate of 1.29 cfs/acre as determined in the approved Amole-Hubbell Drainage Plan. The western portion of subbasin 190 (revised subbasin 190A, see Figure 6) will remain in the Snow Vista Basin. A "temporary drainage easement" along the western property line of Sunrise Ranch within sub basin 180 has been acquired to provide a conveyance path for developed runoff from sub basin 190A as well as the Sunrise Ranch Unit 2 site has been graded to allow offsite flows from Subbasin 190A to be conveyed as street flow through the site to inlets that discharge into the Snow Vista Pond. The allowable flow rate of 1.29 cfs per acre as determined in the approved Amole-Hubbell Drainage Plan will remain in effect.

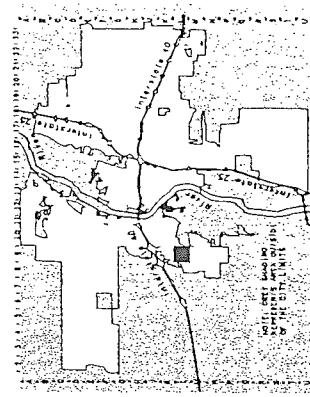


Albuquerque
A basis for growth
Planning Department
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GRAPHIC SCALE IN FEET

250 0 500



Zone Atlas Page
E-9-Z

Map Amended through
September 17, 1999



FIGURE 1: VICINITY MAP



FIGURE 2: FEMA MAP

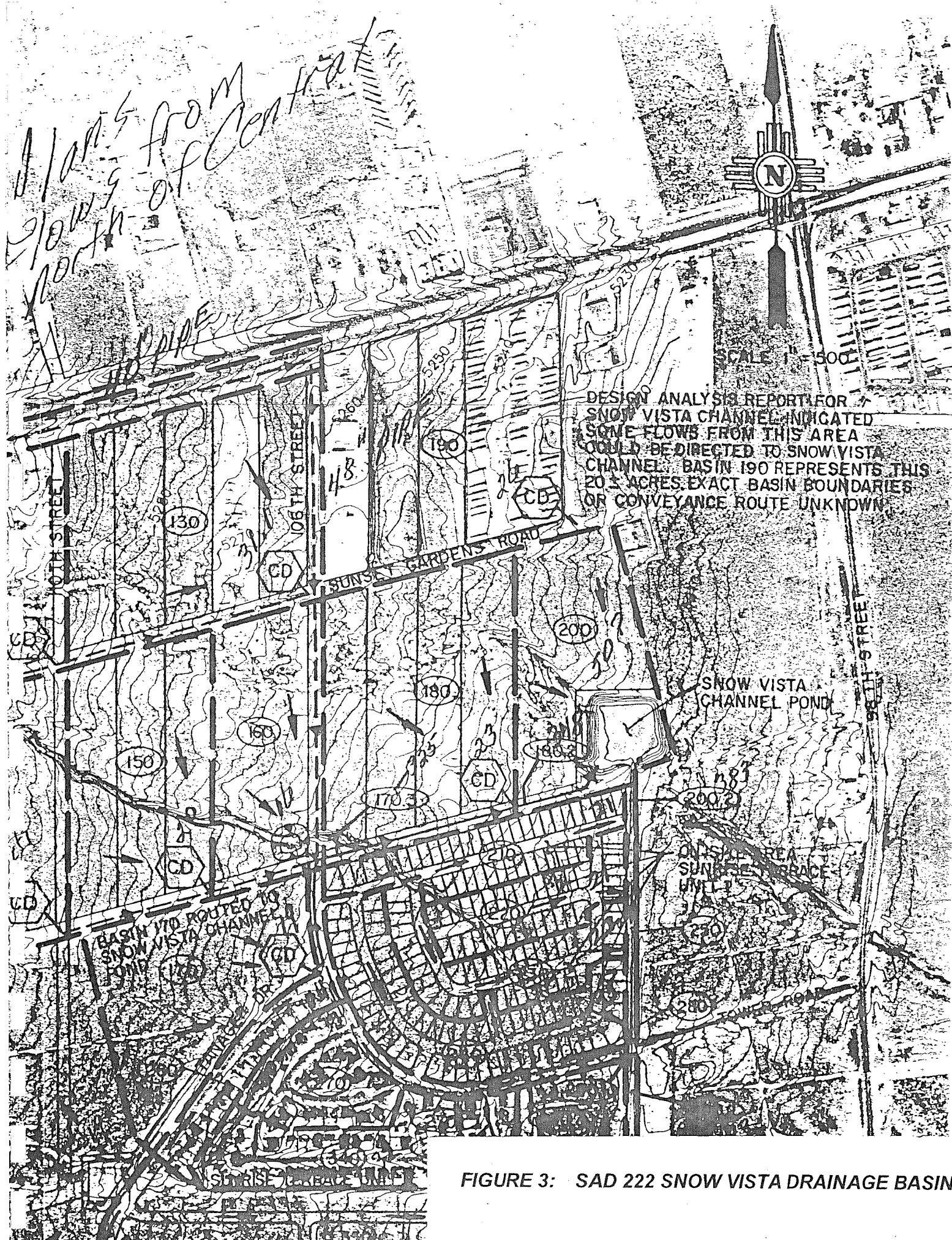
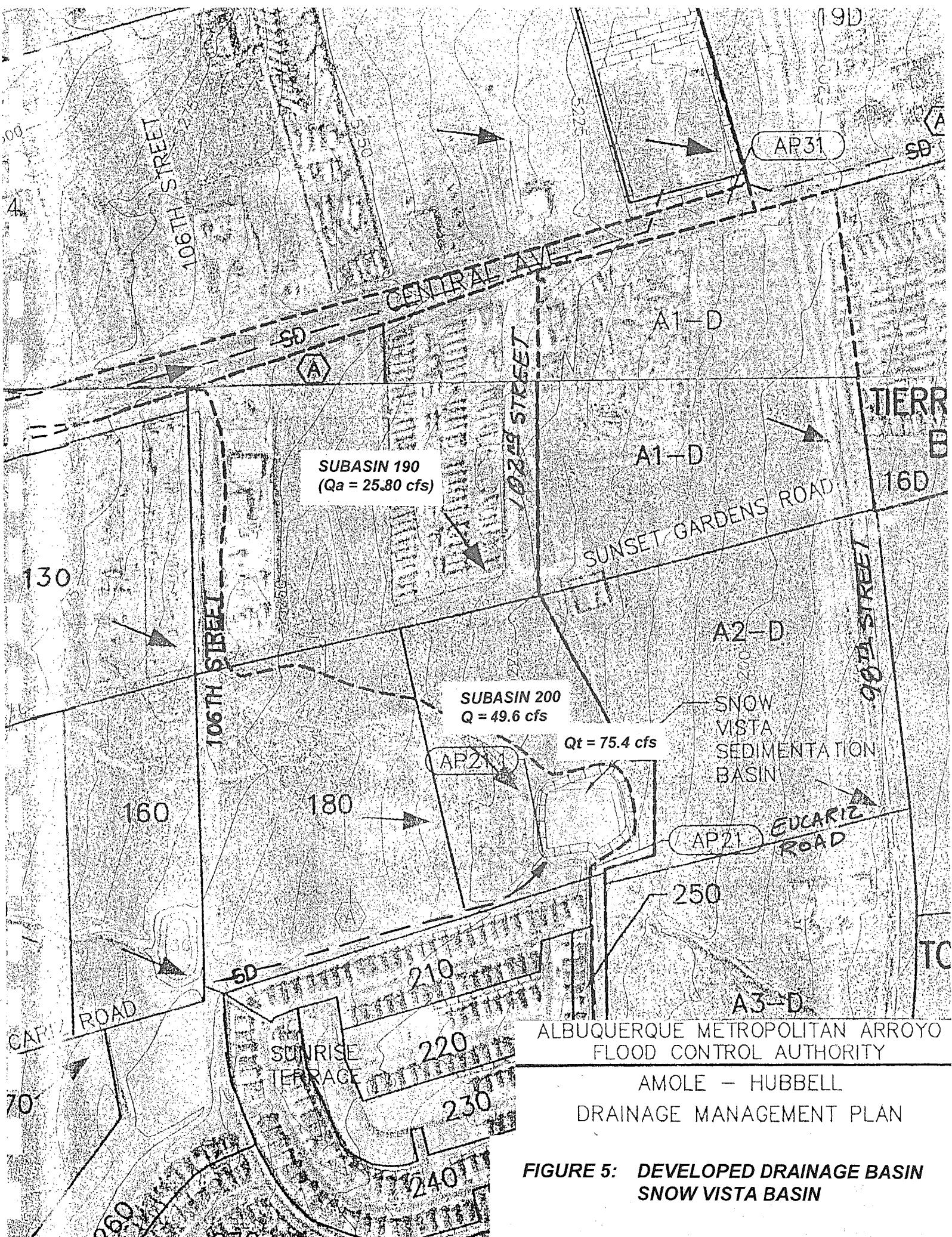


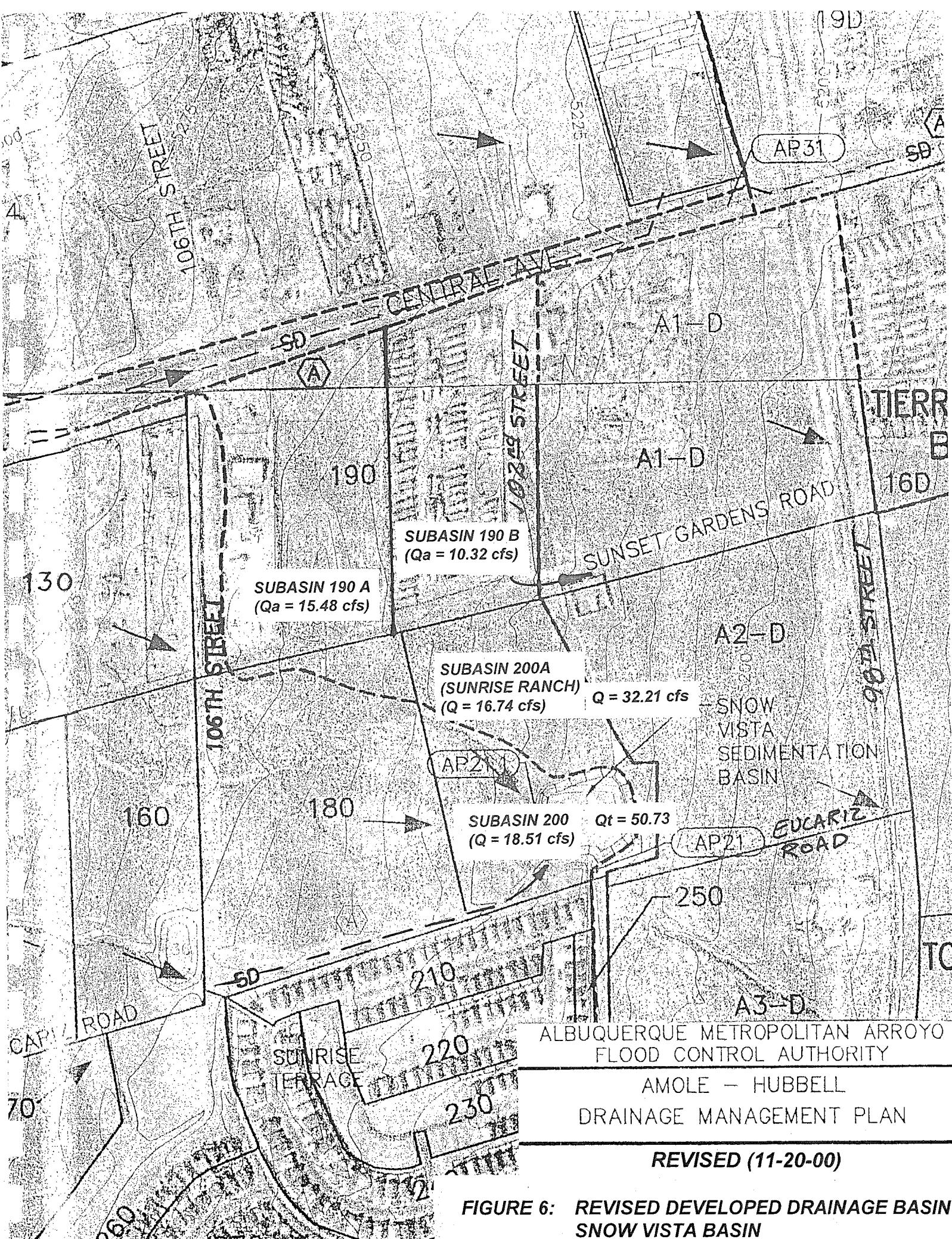
FIGURE 3: SAD 222 SNOW VISTA DRAINAGE BASIN



**FIGURE 4: EXISTING DRAINAGE BASIN
SNOW VISTA BASIN**



**FIGURE 5: DEVELOPED DRAINAGE BASIN
SNOW VISTA BASIN**



**FIGURE 6: REVISED DEVELOPED DRAINAGE BASIN
SNOW VISTA BASIN**

APPENDIX A
SNOW VISTA BASIN
AHYMO PRINTOUTS

TABLE III-3
HYDROLOGIC SUMMARY
SNOW VISTA BASIN

AP#ID	MAP AC.	DESCRIPTION	AVAILABLE	PROPOSED DIMP FACILITIES			REVISED DIMP FACILITIES	FUTURE CHANGES
				DIMP	FUTURE CAPACITY	DIMP		
21.1	4	SNOW VISTA SEDIMENTATION BASIN	Q (cfs) Tvol (AF) Dvol (AF) Runoff (in) cfs/ac	423 53.8 6.4 2.07 1.36	484	400 51.5 6.3 2.05 1.33	484	
21	4	SNOW VISTA CHANNEL AT HEAD	Q (cfs) Tvol (AF) Runoff (in) cfs/ac	388 53.18 2.07 1.25	375	372 51.5 2.05 1.24	375	
22	4	SNOW VISTA BELOW SECTION LINE JUNCTION	Q (cfs) Tvol (AF) Runoff (in) cfs/ac	747 95 1.97 1.29	810	726 93 1.96 1.28	810	
22.1	4	SNOW VISTA BELOW SAGE CROSSING	Q (cfs) Tvol (AF) Runoff (in) cfs/ac	916 114.4 1.93 1.29	930	895 112.1 1.92 1.28	930	
22.2	4	SNOW VISTA BELOW INLET FROM WESTGATE	Q (cfs) Tvol (AF) Runoff (in) cfs/ac	1031 121.7 1.92 1.36	1050	1012 119.4 1.91 1.35	1050	
23	4	SNOW VISTA BELOW BENAVIDES INLET	Q (cfs) Tvol (AF) Runoff (in) cfs/ac	2058 167.5 1.88 1.93	2100	2045 165.2 1.87 1.93	2100	
24	7	SNOW VISTA AT ENTRANCE TO AMOLE ARROYO	Q (cfs) Tvol (AF) Runoff (in) cfs/ac	2081 183.4 1.87 1.77	2100	2065 181.1 1.86 1.77	2100	

Summary Table w/ Revisions

AHYMO SUMMARY TABLE (AHYMO.1.94) - AMAFCA Hydrologic Model - January, 1994
 INPUT FILE = sv_dmpr.dat

						RUN DATE (MON/DAY/YR)	=11/21/2000		
						USER NO.= M_GOODWIN.101			
COMMAND	HYDROGRAPH ID IDENTIFICATION NO.	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	TIME TO PEAK (HOURS)	CFS PER ACRE	PAGE = 1
START									
*S SNOW VISTA WITH MANAGEMENT PLAN IN PLACE									
*S									
S 100-YR, 24-HR STORM WITH NO SEDIMENT									
*S									
*S FILE NAME : SV_DMPR.DAT									
*S									
*S BY: TOM BLAINE AND RICHARD STOCKTON/K. JACOBSEN									
*S									
*S LAST REVISION: 06-08-99 (PIPE FOR POND 71 CHANGED AND HYD=400)									
*S									
S DMG LAST REVISION: 11-20-00 (REVISED SUBASIN 190 TO 190A & 190B,									
*S									
S DMG ROUTED 190A THROUGH SNOW VISTA POND; REVISED SUBASIN 200 TO 200 & 200A,									
*S									
*S100 YEAR 24HR STORM DEVELOPED CONDITION									
RAINFALL TYPE= 2									
COMPUTE NM HYD	100.00	-	2	.13520	340.82	15.597	2.16311	1.500	RAINF24= 2.660
ROUTE RESERVOIR	100.10	2	5	.13520	111.60	15.611	2.16501	1.850	3.939 PER IMP= 85.00
ROUTE	100.20	5	3	.13520	112.75	15.611	2.16502	1.400	1.290 AC-FT= 4.075
ROUTE	100.30	3	10	.13520	114.14	15.611	2.16502	1.319	1.303
COMPUTE NM HYD	110.00	-	2	.07170	181.36	8.272	2.16311	1.450	3.952 PER IMP= 85.00
ROUTE RESERVOIR	110.10	2	5	.07170	59.19	8.377	2.19060	2.600	1.290 AC-FT= .001
ROUTE	110.20	5	11	.07170	61.29	8.377	2.19061	1.400	1.336
ROUTE	120.00	-	2	.04030	101.99	4.649	2.16311	1.500	3.954 PER IMP= 85.00
ROUTE RESERVOIR	120.10	2	5	.04030	33.30	4.654	2.16525	1.850	1.291 AC-FT= 1.219
ADD HYD	120.20	11& 5	12	.12000	94.58	13.031	2.18148	1.400	1.319
ROUTE	120.30	12	11	.11200	95.88	13.031	2.18148	1.400	1.338
ROUTE	130.00	-	2	.03770	95.41	4.349	2.16311	1.500	3.954 PER IMP= 85.00
ROUTE RESERVOIR	130.10	2	5	.03770	31.10	4.349	2.16310	1.850	1.289 AC-FT= 1.142
ADD HYD	130.20	11& 5	12	.14970	126.97	17.380	2.17685	1.400	1.325
ADD HYD	130.30	10& 12	12	.28490	238.38	32.991	2.17123	1.450	1.307
ROUTE	130.40	12	90	.28490	241.75	32.991	2.17124	1.450	1.326
ROUTE	140.00	-	2	.04300	105.07	4.718	2.05746	1.500	3.818 PER IMP= 79.00
ROUTE RESERVOIR	140.10	2	5	.04300	35.50	4.739	2.06628	1.800	1.290 AC-FT= 1.198
ROUTE	140.20	5	11	.04300	36.97	4.739	2.06630	1.400	1.343
ROUTE	150.00	-	2	.02420	55.95	2.451	1.89898	1.500	3.612 PER IMP= 70.00
ROUTE RESERVOIR	150.10	2	5	.02420	19.99	2.456	1.90318	1.800	1.291 AC-FT= .589
ADD HYD	150.20	11& 5	12	.06720	56.96	7.195	2.00755	1.400	1.324
ROUTE	170.00	-	70	.02853	65.96	2.889	1.89898	1.500	3.612 PER IMP= 70.00
ROUTE RESERVOIR	150.10	70	5	.02853	23.61	2.893	1.90140	1.800	1.293 AC-FT= .693
ADD HYD	170.20	12& 5	12	.09573	80.56	10.088	1.97591	1.400	1.315
ROUTE	150.30	12	11	.09573	83.24	10.088	1.97592	1.400	1.359
ROUTE	160.00	-	2	.02170	50.17	2.198	1.89898	1.500	3.612 PER IMP= 70.00
ROUTE RESERVOIR	160.10	2	5	.02170	15.89	2.198	1.89896	1.850	1.144 AC-FT= .888
ADD HYD	160.20	11& 5	12	.11743	94.99	12.286	1.96168	1.850	1.264

ROUTE	170.40	12	11	.11743	94.99	12.286	1.96169	1.264
COMPUTE NM HYD	180.00	-	2	.02810	64.96	2.846	1.89898	3.612 PER IMP=
ROUTE RESERVOIR	180.10	2	5	.02810	23.20	2.854	1.90432	1.290 AC-FT=
ADD HYD	180.20	11& 5	10	.14553	118.19	15.140	1.95061	1.269
ROUTE	180.30	10	11	.14553	118.20	15.140	1.95061	1.269
COMPUTE NM HYD	190.10A	-	2	.01878	47.54	2.167	2.16311	3.955 PER IMP=
ROUTE RESERVOIR	190.10	2	5	.01878	15.47	2.167	2.16309	1.287 AC-FT=
ROUTE	190.20	90	10	.28490	246.00	32.991	2.17124	1.450
ADD HYD	190.30	11&10	12	.43043	355.63	48.131	2.09664	1.450
COMPUTE NM HYD	200.00	-	1	.01436	18.51	.510	.66636	1.500
COMPUTE NM HYD	200A	-	3	.00736	16.74	.700	1.78251	1.500
ADD HYD	200.A	5& 3	4	.02614	32.21	.866	2.05592	1.500
ADD HYD	200.A	1& 4	2	.04050	50.73	3.377	1.56322	1.500
*S THE VOLUME FROM 200.1 IS THE SNOW VISTA POND VOLUME UNDER DEV. COND.								
*S HYD=200.1 IS *****AP 21.1*****								
ADD HYD	200.10	2&12	10	.47093	400.36	51.508	2.05076	1.450
ROUTE RESERVOIR	200.20	10	3	.47093	371.31	51.520	2.05127	2.000
*S HYD=200.2 IS *****AP 21*****								1.232 AC-FT=
MODIFY TIME	200.20	3	3	.47093	372.16	51.520	2.05127	1.235
*S BEGIN ONSITE WATERSHED								
COMPUTE NM HYD	210.00	-	2	.00920	20.66	.871	1.77514	1.500
ADD HYD	210.10	3& 2	10	.48013	376.49	52.391	2.04598	1.950
ROUTE	210.20	10	11	.48013	376.91	52.390	2.04593	1.950
COMPUTE NM HYD	220.00	-	2	.00800	17.97	.757	1.77514	1.500
ADD HYD	220.10	11& 2	10	.48813	381.05	53.147	2.04149	1.950
ROUTE	220.20	10	11	.48813	380.71	53.147	2.04147	1.950
COMPUTE NM HYD	230.00	-	2	.00940	21.11	.890	1.77514	1.500
ADD HYD	230.10	11& 2	10	.49753	385.90	54.037	2.03644	1.900
ROUTE	230.20	10	11	.49753	386.65	54.036	2.03644	1.900
COMPUTE NM HYD	240.00	-	2	.01450	32.56	1.373	1.77514	1.500
*S END ONSITE WATERSHED								
ADD HYD	240.10	11& 2	10	.51203	395.00	55.409	2.02901	1.900
COMPUTE NM HYD	250.00	-	2	.00220	5.04	.201	1.71016	1.500
ADD HYD	250.10	10& 2	11	.51423	396.28	55.609	2.02764	1.900
ROUTE	260.00	-	2	.01570	34.01	1.443	1.72289	1.500
COMPUTE NM HYD	260.10	2	15	.01570	32.36	1.443	1.72292	1.550
COMPUTE NM HYD	270.00	-	2	.01020	20.61	.841	1.54680	1.500
ADD HYD	270.10	15& 2	16	.02590	52.62	2.284	1.65352	1.500
DIVIDE HYD	270.20	16	15	.02035	25.79	1.795	1.65352	1.500
ROUTE	270.30	AND	3	.00555	26.84	.489	1.65352	1.500
COMPUTE NM HYD	270.40	3	16	.00555	24.11	.489	1.65360	1.550
ADD HYD	280.00	-	2	.00220	5.42	.243	2.07506	1.500
ROUTE	280.10	16& 2	17	.00775	28.88	.733	1.77310	1.550
COMPUTE NM HYD	280.20	17&11	10	.52198	400.20	.56.342	2.02387	1.800
ADD HYD	280.30	10	11	.52198	400.31	.56.338	2.02373	1.800
ROUTE	290.00	-	2	.00670	12.00	.421	1.17900	1.500
COMPUTE NM HYD	290.10	11& 2	10	.52868	403.71	.56.760	2.01302	1.800
ADD HYD	300.00	-	2	.07090	179.34	8.179	2.16311	1.500
ROUTE RESERVOIR	300.10	2	5	.07090	58.60	8.192	2.16634	1.850
ROUTE	300.20	5	11	.07090	58.59	8.192	2.16636	2.350
COMPUTE NM HYD	310.00	-	2	.08640	214.61	9.724	2.11028	1.500
								3.881 PER IMP= 82.00

ROUTE	RESERVOIR	310.10	2	5	.08640	71.30	9.826	2.13237	1.800	1.289 AC-FT=	2.505
ADD HYD		310.20	116.5	12	.15730	129.89	18.018	2.14769	2.300	1.290	
ROUTE		310.30	12	11	.15730	129.89	18.018	2.14769	2.300	1.290	
ROUTE		310.40	11	13	.15730	129.89	18.018	2.14769	2.350	1.290	
COMPUTE NM HYD		320.00	-	2	.05470	122.45	5.283	1.81093	1.500	3.498 PER IMP=	65.00
ROUTE RESERVOIR		320.10	2	5	.05470	16.32	5.206	1.78457	2.100	.466 AC-FT=	3.035
ROUTE		320.20	5	11	.05470	16.32	5.205	1.78432	2.150	.466	
COMPUTE NM HYD		330.00	-	2	.02380	53.29	2.299	1.81093	1.500	3.498 PER IMP=	65.00
ADD HYD		330.10	116.2	12	.07850	63.27	7.504	1.79239	1.500	1.259	
ADD HYD		330.20	12&13	14	.23580	190.99	25.522	2.02940	1.500	1.266	
ROUTE		330.30	14	12	.23580	189.79	25.521	2.02933	1.550	1.258	
ROUTE		330.40	12	11	.23580	190.04	25.521	2.02933	1.550	1.259	
ROUTE		330.50	15	17	.02035	25.49	1.795	1.65356	1.550	1.957	
ROUTE		330.60	17	16	.02035	25.11	1.795	1.65356	1.550	1.928	
COMPUTE NM HYD		340.00	-	2	.01550	31.31	1.279	1.54680	1.500	3.156 PER IMP=	50.00
ADD HYD		340.10	16& 2	15	.03585	55.01	3.073	1.60737	1.500	2.398	
ROUTE		340.20	15	16	.03585	54.76	3.073	1.60739	1.500	2.387	
ROUTE		340.30	16	15	.03585	54.42	3.073	1.60739	1.500	2.372	
COMPUTE NM HYD		340.00	-	2	.04830	97.54	3.985	1.54680	1.500	3.155 PER IMP=	50.00
ADD HYD		350.10	15& 2	16	.08415	151.96	7.058	1.57261	1.500	2.822	
ROUTE		350.20	16	15	.08415	151.86	7.058	1.57261	1.500	2.820	
ROUTE		350.30	15	16	.08415	150.38	7.058	1.57261	1.500	2.792	
COMPUTE NM HYD		360.00	-	2	.02080	42.01	1.716	1.54680	1.500	3.156 PER IMP=	50.00
ADD HYD		360.10	16& 2	15	.10495	192.40	8.774	1.56748	1.500	2.864	
ADD HYD		360.20	15&11	17	.34075	379.27	34.295	1.88709	1.500	1.739	
ROUTE		360.30	17	16	.34075	377.82	34.295	1.88708	1.500	1.732	
ADD HYD		360.40	16&10	15	.86943	719.82	91.054	1.96366	1.600	1.294	
COMPUTE NM HYD		370.00	-	2	.01830	36.97	1.510	1.54680	1.500	3.156 PER IMP=	50.00
ROUTE RESERVOIR		370.10	2	5	.01830	6.64	1.510	1.54678	2.050	.567 AC-FT=	.768
*S HYD=AP22 IS *****AP 22*****											
ADD HYD		AP22	5&15	22	.88773	725.91	92.564	1.95507	1.600	1.278	
ROUTE	*	100.00	22	88	.88773	731.89	92.563	1.95504	1.600	1.288	
*S COMPUTE HYD FOR BASIN 301.61											
COMPUTE NM HYD		301.61	-	61	.03590	84.71	3.399	1.77514	1.500	3.687 PER IMP=	61.00
*S ROUTE ID=61 THROUGH POND.61											
ROUTE RESERVOIR		61	61	1	.03590	26.35	3.411	1.78163	1.750	1.147 AC-FT=	1.154
*S ROUTE THIS FLOW DOWN THE 24" STORM DRAIN PIPE TO POND.62											
ROUTE		61	1	11	.03590	26.36	3.411	1.78166	1.800	1.147	
*S HYDROGRAPH ID = 11 IS THE ROUTED FLOW OUT OF POND.61											
*S COMPUTE HYD FOR BASIN 301.62											
COMPUTE NM HYD		301.62	-	62	.03440	81.18	3.257	1.77514	1.500	3.687 PER IMP=	61.00
*S ROUTE ID=62 THROUGH POND.62											
ROUTE RESERVOIR		62	62	1	.03440	25.02	3.267	1.78046	1.800	1.136 AC-FT=	1.098
*S ROUTED FLOW OUT OF POND.62											
*S ADD HYD ID=11 TO ID=1 AND ROUTE THIS FLOW THROUGH THE 30" STORM DRAIN											
*S TO POND.63											
ADD HYD		POND.62	1&1	1	.07030	51.38	6.678	1.78106	1.800	1.142	
ROUTE		62	1	12	.07030	51.40	6.678	1.78107	1.800	1.142	
*S HYDROGRAPH ID = 12 IS THE ROUTED FLOW DOWN THE 30" STORM DRAIN PIPE											
*S COMPUTE HYD FOR BASIN 301.63											
COMPUTE NM HYD		301.63	-	63	.03440	81.18	3.257	1.77514	1.500	3.687 PER IMP=	61.00

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*S ROUTE ID=63 THROUGH POND.63
ROUTE RESERVOIR .63 63 1 .03440 25.02 3.267 1.78046 1.800 1.136 AC-FT= 1.098
*S ROUTED FLOW OUT OF POND.63
*S ADD HYD ID=12 TO ID=1 AND ROUTE THIS FLOW THROUGH THE 36" STORM DRAIN
*S TO POND.64
ADD HYD POND.63 1&12 1 .10470 76.42 9.944 1.78086 1.800 1.140
ROUTE .63 1 13 .10470 76.44 9.944 1.78087 1.800 1.141
*S HYDROGRAPH ID = 13 IS THE ROUTED FLOW DOWN THE 36" STORM DRAIN PIPE
*S TO THE INLET OF POND.64 TO THIS STORM DRAIN PIPE
*S COMPUTE HYD FOR BASIN 301.64
COMPUTE NM HYD 301.64 - 64 .03440 81.18 3.257 1.77514 1.78046 1.800 3.687 PER IMP= 61.00
*S ROUTE ID=64 THROUGH POND.64
ROUTE RESERVOIR .64 64 1 .03440 25.02 3.267 1.78046 1.800 1.136 AC-FT= 1.098
*S ROUTED FLOW OUT OF POND.64
*S ADD HYD ID=13 TO ID=1 AND ROUTE THIS FLOW THROUGH THE 36" STORM DRAIN
*S TO POND.65
ADD HYD POND.64 1&13 1 .13910 101.46 13.211 1.78076 1.800 1.140
ROUTE .64 1 14 .13910 101.46 13.211 1.78077 1.800 1.140
*S HYDROGRAPH ID = 14 IS THE ROUTED FLOW DOWN THE 36" STORM DRAIN PIPE
*S TO THE INLET OF POND.64 TO THIS STORM DRAIN PIPE
*S COMPUTE HYD FOR BASIN 301.65
COMPUTE NM HYD 301.65 - 65 .03440 81.18 3.257 1.77514 1.78046 1.800 3.687 PER IMP= 61.00
*S ROUTE ID=65 THROUGH POND.65
ROUTE RESERVOIR .65 65 1 .03440 25.02 3.267 1.78046 1.800 1.136 AC-FT= 1.098
*S ROUTED FLOW OUT OF POND.65
*S ADD HYD ID=14 TO ID=1 AND ROUTE THIS FLOW THROUGH THE 36" STORM DRAIN
*S TO SNOW VISTA CHANNEL
ADD HYD POND.65 1&14 1 .17350 126.48 16.477 1.78070 1.800 1.139
*S COMPUTE HYD FOR BASIN 301.05
COMPUTE NM HYD 301.05 - 5 .03280 77.40 3.105 1.77514 1.78046 1.800 3.687 PER IMP= 61.00
*S TOTAL FLOW AT AP-22.1 IN SNOW VISTA CHANNEL
ADD HYD 301.00 88& 1 3 1.06123 849.94 109.040 1.92654 1.600 1.251
*S HYD=AP22.1 IS ****AP 22.1*****
ADD HYD AP22.1 3& 5 2 1.09403 895.37 112.145 1.92200 1.600 1.279
ROUTE 301.60 2 1 1.09403 904.78 112.143 1.92195 1.600 1.292
*S COMPUTE HYD FOR BASIN 301.04
COMPUTE NM HYD 301.04 - 4 .07660 180.72 7.252 1.77515 1.78046 1.800 3.686 PER IMP= 61.00
*S HYD=AP22.2 IS ****AP 22.2****
ADD HYD AP22.2 1& 4 1 1.17063 1012.17 119.395 1.91234 1.550 1.351
ROUTE 300.00 1 9 1.17063 1016.62 119.393 1.91232 1.600 1.357
*S COMPUTE HYD FOR BASIN 301.71
COMPUTE NM HYD 301.71 - 71 .06940 163.75 6.570 1.77514 1.78046 1.800 3.687 PER IMP= 61.00
*S ROUTE THIS FLOW DOWN THE 60" STORM DRAIN PIPE LINE TO 301.72
ROUTE .71 71 11 .06940 167.38 6.570 1.77515 1.78046 1.800 3.687 PER IMP= 61.00
*S COMPUTE HYD FOR BASIN 301.72
COMPUTE NM HYD 301.72 - 72 .04220 99.58 3.995 1.77514 1.78046 1.800 3.687 PER IMP= 61.00
*S ADD BASIN 301.71 AND ROUTE THIS FLOW DOWN THE 60" STORM DRAIN PIPE LINE TO 3
ADD HYD 301.72 72&11 2 .11160 266.96 10.566 1.77514 1.500 3.738
ROUTE .71 2 11 .11160 269.93 10.566 1.77515 1.500 3.779
*S COMPUTE HYD FOR BASIN 301.74
COMPUTE NM HYD 301.74 - 74 .00910 21.88 .830 1.71015 1.500 3.757 PER IMP= 50.00

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*S ADD BASIN 301.72 AND BASIN 301.74
ADD HYD      301.74 74&11 11    .12070   291.81   11.396   1.77024   1.500   3.778
COMPUTE NM HYD 301.73 -     .01940   45.78    1.837   1.77514   1.500   3.688 PER IMP= 61.00
*S ADD HYDGRPHS FROM
ADD HYD      301.73 73&11 4     .14010   337.60   13.232   1.77092   1.500   3.765
*S COMPUTE HYD FOR BASIN 301.03
COMPUTE NM HYD 301.03 -     3     .34380   810.21   32.549   1.77514   1.500   3.682 PER IMP= 61.00
*S HYDROGRAPH ID 73 IS THE INFLOW TO THE SNOW VISTA CHANNEL AT AP-23
ADD HYD      301.03 3& 4 73    .48390   1147.81   45.781   1.77392   1.500   3.706
*S HYD=AP23 IS ****AP 23***** 
ADD HYD      AP23  9&73 1     1.65453   2044.94   165.175   1.87185   1.500   1.931
ROUTE       400.00 1     2     1.65453   2052.35   165.174   1.87184   1.500   1.938
ROUTE       500.00 2     3     1.65453   2011.26   165.170   1.87180   1.500   1.899
ROUTE       600.00 3     4     1.65453   1991.56   165.169   1.87178   1.550   1.881
*S COMPUTE HYD FOR BASIN 301.02
COMPUTE NM HYD 301.02 -     2     .03910   92.26    3.702   1.77514   1.500   3.687 PER IMP= 61.00
ROUTE RESERVOIR          .02 2     .03910   44.19    3.702   1.77514   1.650   1.766 AC-FT= 1.152
ADD HYD      AP23.1 4& 1 3     1.69363   2031.58   168.870   1.86555   1.550   1.874
ROUTE       700.00 3     2     1.69363   2025.39   168.862   1.86945   1.550   1.869
*S COMPUTE HYD FOR BASIN 301.01
COMPUTE NM HYD 301.01 -     1     .07810   184.26   7.394   1.77514   1.500   3.686 PER IMP= 61.00
ROUTE RESERVOIR          .01 1     .07810   102.50   7.394   1.77514   1.600   2.051 AC-FT= 1.789
ADD HYD      AP23.2 5& 2 6     1.77173   2127.85   176.256   1.86530   1.550   1.877
ROUTE       800.00 6     4     1.77173   2022.41   176.243   1.86516   1.600   1.784
*S COMPUTE HYD FOR BASIN 301.00
COMPUTE NM HYD 300.00 -     1     .05156   121.66   4.881   1.77514   1.500   3.687 PER IMP= 61.00
ROUTE RESERVOIR          .01 1     .05156   42.85    4.881   1.77514   1.750   1.298 AC-FT= 1.790
*S HYD=AP24 IS ****AP 24***** 
ADD HYD      AP24  5& 4 2     1.82329   2065.13   181.124   1.86261   1.600   1.770
ROUTE       SV_DMP2.HYD 2     66    1.82329   2048.99   181.115   1.86252   1.600   1.756
FINISH

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AHYMO SUMMARY TABLE (AHYMO194) - AMAFCA Hydrologic Model - January, 1994
 INPUT FILE = SV_DMP.DAT

RUN DATE (MON/DAY/YR) =11/21/2000
 USER NO. = M_GOODWN.101

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID	TO ID	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	TIME TO PEAK (HOURS)	CFS PER ACRE	PAGE = 1 NOTATION
START									TIME= .00
*S	SNOW VISTA								
*S	WITH MANAGEMENT PLAN IN PLACE								
*S	*S 100-YR, 24-HR STORM WITH NO SEDIMENT**								
*S	FILE NAME : SV_DMP1.DAT								
*S	BY: TOM BLAINE AND RICHARD STOCKTON/K. JACOBSEN								
*S	LAST REVISION: 06-08-99 (PIPE FOR POND, 71 CHANGED AND HYD=400).								
*S100	YEAR 24HR STORM DEVELOPED CONDITION								
RAINFALL TYPE= 2									
COMPUTE NM HYD	100.00	-	2	.13520	340.82	15.597	2.16311	1.500	RAIN24= 2.660
ROUTE RESERVOIR	100.10	2	5	.13520	111.60	15.611	2.16501	1.850	*S 939 PER IMP= 85.00
ROUTE	100.20	5	3	.13520	112.75	15.611	2.16502	1.400	1.290 AC-FT= 4.075
ROUTE	100.30	3	10	.13520	114.14	15.611	2.16502	1.450	1.303
ROUTE	110.00	-	2	.07170	181.36	8.272	2.16311	1.500	1.319
ROUTE	110.10	2	5	.07170	59.19	8.377	2.19060	2.600	1.290 AC-FT= .001
ROUTE	110.20	5	11	.07170	61.29	8.377	2.19061	1.400	1.336
ROUTE	120.00	-	2	.04030	101.99	4.649	2.16311	1.500	3.954 PER IMP= 85.00
ROUTE	120.10	2	5	.04030	33.30	4.654	2.16525	1.850	1.291 AC-FT= 1.219
ROUTE RESERVOIR	120.20	11& 5	12	.11200	94.58	13.031	2.18148	1.400	1.319
ADD HYD	120.30	12	11	.11200	95.88	13.031	2.18148	1.400	1.338
ROUTE	130.00	-	2	.03770	95.41	4.349	2.16311	1.500	3.954 PER IMP= 85.00
ROUTE	130.10	2	5	.03770	31.10	4.349	2.16310	1.850	1.289 AC-FT= 1.142
ROUTE RESERVOIR	130.20	11& 5	12	.14970	126.97	17.380	2.17685	1.400	1.325
ADD HYD	130.30	10&12	12	.28490	238.38	32.991	2.17123	1.450	1.307
ROUTE	130.40	12	90	.28490	241.75	32.991	2.17124	1.450	1.326
ROUTE	140.00	-	2	.04300	105.07	4.718	2.05746	1.500	3.818 PER IMP= 79.00
ROUTE RESERVOIR	140.10	2	5	.04300	35.50	4.739	2.06628	1.800	1.290 AC-FT= 1.198
ROUTE	140.20	5	11	.04300	36.97	4.739	2.06630	1.400	1.343
ROUTE	150.00	-	2	.02420	55.95	2.451	1.89898	1.500	3.612 PER IMP= 70.00
ROUTE	150.10	2	5	.02420	19.99	2.456	1.90318	1.800	1.291 AC-FT= .589
ROUTE	150.30	12	11	.09573	83.24	7.195	2.00755	1.400	1.324
ADD HYD	150.20	11& 5	12	.06720	56.96	2.869	1.89898	1.500	3.612 PER IMP= 70.00
ROUTE	170.00	-	2	.02853	65.96	2.869	1.89898	1.500	1.293 AC-FT= .693
ROUTE RESERVOIR	150.10	70	5	.02853	23.61	2.893	1.90140	1.800	1.315
ADD HYD	170.20	12& 5	12	.09573	80.56	10.088	1.97591	1.400	1.359
ROUTE	150.30	12	11	.09573	83.24	10.088	1.97592	1.400	1.359
ROUTE	160.00	-	2	.02170	50.17	2.198	1.89898	1.500	3.612 PER IMP= 70.00
ROUTE	160.10	2	5	.02170	15.89	2.198	1.89898	1.500	1.144 AC-FT= .888
ROUTE RESERVOIR	160.20	11& 5	12	.11743	94.99	12.286	1.96168	1.850	1.264
ADD HYD	170.40	12	11	.11743	94.99	12.286	1.96169	1.850	1.264
ROUTE	180.00	-	2	.02810	64.96	2.846	1.89898	1.500	3.612 PER IMP= 70.00

ROUTE RESERVOIR	180.10	2	5	.02810	23.20	2.854	1.90432	1.800	1.290 AC-FTE=
ADD HYD	180.20	11& 5	10	.14553	118.19	15.140	1.95061	1.850	1.269
ROUTE	180.30	10	11	.14553	118.20	15.140	1.95061	1.850	1.269
COMPUTE NM HYD	190.00	-	2	.03130	79.22	3.611	2.16311	1.500	3.955 PER IMP=
ROUTE RESERVOIR	190.10	2	5	.03130	25.80	3.611	2.16310	1.850	1.288 AC-FTE=
ADD HYD	190.00	90& 5	1	.31620	267.54	36.602	2.17043	1.450	.950
ROUTE	190.20	1	10	.31620	271.17	36.602	2.17043	1.450	1.340
ADD HYD	190.30	11&10	12	.46173	380.80	51.742	2.10114	1.450	1.289
COMPUTE NM HYD	200.00	-	2	.02520	49.60	2.074	1.54349	1.500	3.075 PER IMP=
*S THE VOLUME FROM 200.1 IS THE SNOW VISTA POND VOLUME UNDER DEV. COND.									
*S HYD=200.1 IS *****AP 21.1*****									
ADD HYD	200.10	2&12	10	.48693	423.42	53.816	2.07228	1.450	1.359
ROUTE RESERVOIR	200.20	10	3	.48693	387.71	53.814	2.07218	2.000	1.244 AC-FTE=
*S HYD=200.2 IS *****AP 21*****									6.455
MODIFY TIME	200.20	3	3	.48693	388.53	53.814	2.07218	1.950	1.247
*S BEGIN ONSITE WATERSHED									
COMPUTE NM HYD	210.00	-	2	.00920	20.66	.871	1.77514	1.500	3.509 PER IMP=
ADD HYD	210.10	3& 2	10	.49513	393.57	54.685	2.06667	1.900	1.239
ROUTE	210.20	10	11	.49513	393.76	54.684	2.06663	1.950	1.240
COMPUTE NM HYD	220.00	-	2	.00800	17.97	.757	1.77514	1.500	3.510 PER IMP=
ADD HYD	220.10	11& 2	10	.50413	397.90	55.441	2.06200	1.950	1.233
ROUTE	220.20	10	11	.50413	397.80	55.440	2.06198	1.900	1.233
COMPUTE NM HYD	230.00	-	2	.00940	21.11	.890	1.77514	1.500	3.509 PER IMP=
ADD HYD	230.10	11& 2	10	.51353	403.48	56.330	2.05673	1.850	1.228
ROUTE	230.20	10	11	.51353	404.02	56.330	2.05670	1.900	1.229
COMPUTE NM HYD	240.00	-	2	.01450	32.56	1.373	1.77514	1.500	3.509 PER IMP=
*S END ONSITE WATERSHED									
ADD HYD	240.10	11& 2	10	.52803	412.58	57.702	2.04897	1.800	1.221
COMPUTE NM HYD	250.00	-	2	.00220	5.04	.201	1.71016	1.500	3.582 PER IMP=
ADD HYD	250.10	10& 2	11	.53023	414.22	57.903	2.04756	1.800	1.221
COMPUTE NM HYD	260.00	-	2	.01570	34.01	1.443	1.72289	1.500	3.385 PER IMP=
ROUTE	260.10	2	15	.01570	32.36	1.443	1.72292	1.550	3.221
COMPUTE NM HYD	270.00	-	2	.01020	20.61	.841	1.54680	1.500	3.157 PER IMP=
ADD HYD	270.10	15& 2	16	.02590	52.62	2.284	1.65352	1.500	3.175
DIVIDE HYD	270.20	16	15	.02035	25.79	1.795	1.63352	1.500	1.980
ROUTE	270.30	AND	3	.00555	26.84	.489	1.65352	1.500	7.556
COMPUTE NM HYD	270.40	3	16	.00555	24.11	.489	1.65360	1.550	6.788
ROUTE	280.00	-	2	.00220	5.42	.243	2.07206	1.500	3.850 PER IMP=
COMPUTE NM HYD	280.10	16& 2	17	.00775	28.88	.733	1.7310	1.550	5.821
ADD HYD	280.20	17&11	10	.53798	419.19	58.636	2.04361	1.750	1.217
ROUTE RESERVOIR	280.30	10	11	.53798	419.02	58.632	2.04348	1.750	1.217
ROUTE	300.00	-	2	.00670	12.00	.421	1.17900	1.500	2.799 PER IMP=
COMPUTE NM HYD	310.00	-	2	.08640	214.61	9.724	2.11028	1.500	25.00
ADD HYD	290.10	11& 2	10	.54463	424.08	59.053	2.03284	1.700	1.217
COMPUTE NM HYD	300.00	-	2	.07090	179.34	8.179	2.16311	1.500	3.952 PER IMP=
ROUTE RESERVOIR	300.10	2	5	.07090	58.60	8.192	2.16634	1.850	2.142
ROUTE	300.20	5	11	.07090	58.59	8.192	2.16636	2.350	1.291
COMPUTE NM HYD	310.00	-	2	.08640	71.30	9.826	2.11028	1.500	3.881 PER IMP=
ROUTE RESERVOIR	310.10	2	5	.08640	129.89	18.018	2.14769	1.800	2.505
ADD HYD	310.20	11& 5	12	.15730	157.30	18.018	2.14769	2.300	1.290
ROUTE	310.30	12	11	.15730	129.89	18.018	2.14769	2.300	1.290
ROUTE	310.40	11	13	.15730	129.89	18.018	2.14769	2.350	1.290

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COMPUTE NM HYD    320.00   -      2      .05470   122.45   5.283   1.81093   1.500   3.498 PER IMP= 65.00
ROUTE RESERVOIR 320.10   2      5      .05470   16.32   5.206   1.78457   2.100   4.466 AC-FT= 3.035
ROUTE             320.20   5      11     .05470   16.32   5.205   1.78432   2.150   4.466
COMPUTE NM HYD    330.00   -      2      .02380   53.29   2.299   1.81093   1.500   3.498 PER IMP= 65.00
ADD HYD          330.10 11&2 12     .07850   63.27   7.504   1.79239   1.500   1.259
ADD HYD          330.20 12&13 14     .23580   190.99   25.522   2.02940   1.500   1.266
ROUTE             330.30 14     12     .23580   189.79   25.521   2.02938   1.550   1.258
ROUTE             330.40 12     11     .23580   190.04   25.521   2.02933   1.550   1.259
ROUTE             330.50 15     17     .02035   25.49   1.795   1.65356   1.550   1.957
ROUTE             330.60 17     16     .02035   25.11   1.795   1.65356   1.550   1.928
ROUTE             340.00   -      2      .01550   31.31   1.279   1.54680   1.500   3.156 PER IMP= 50.00
COMPUTE NM HYD    340.10 16&2 15     .03585   55.01   3.073   1.60737   1.500   2.398
ADD HYD          340.20 15     16     .03585   54.76   3.073   1.60739   1.500   2.387
ROUTE             340.30 16     15     .03585   54.42   3.073   1.60739   1.500   2.372
ROUTE             350.00   -      2      .04830   97.54   3.985   1.54680   1.500   3.156 PER IMP= 50.00
COMPUTE NM HYD    350.10 15&2 16     .08415   151.96   7.058   1.57260   1.500   2.822
ADD HYD          350.20 15&11 17     .08415   151.86   7.058   1.57261   1.500   2.820
ROUTE             350.30 15     16     .08415   150.38   7.058   1.57261   1.500   2.792
ROUTE             360.00   -      2      .02080   42.01   1.716   1.54680   1.500   3.156 PER IMP= 50.00
COMPUTE NM HYD    360.10 16&2 15     .10495   192.40   8.774   1.56748   1.500   2.864
ADD HYD          360.20 15&11 17     .34075   379.27   34.295   1.88709   1.500   1.739
ROUTE             360.30 17     16     .34075   377.82   34.295   1.88708   1.500   1.732
ADD HYD          360.40 16&10 15     .88543   741.01   93.348   1.97675   1.600   1.308
ROUTE             370.00   -      2      .01830   36.97   1.510   1.54680   1.500   3.156 PER IMP= 50.00
ROUTE RESERVOIR 370.10   2      5      .01830   6.64   1.510   1.54678   2.050   .567 AC-FT= .768
*S HYD=AP22 IS *****AP 22*****AP
ADD HYD          AP22 5&15 22     .90373   747.11   94.857   1.96804   1.600   1.292
ROUTE             100.00 22     88     .90373   752.81   94.856   1.96801   1.600   1.302
*S COMPUTE HYD FOR BASIN 301.61
COMPUTE NM HYD    301.61   -      61     .03590   84.71   3.399   1.77514   1.500   3.687 PER IMP= 61.00
*S ROUTE ID=61 THROUGH POND 61
ROUTE RESERVOIR  61     61     1      .03590   26.35   3.411   1.78163   1.750   1.147 AC-FT=
*S ROUTE THIS FLOW DOWN THE 24" STORM DRAIN PIPE TO POND 62
ROUTE             61     1      11     .03590   26.36   3.411   1.78166   1.800   1.147
*S HYDROGRAPH ID = 11 IS THE ROUTED FLOW OUT OF POND 61
*S COMPUTE HYD FOR BASIN 301.62
COMPUTE NM HYD    301.62   -      62     .03440   81.18   3.257   1.77514   1.500   3.687 PER IMP= 61.00
*S ROUTE ID=62 THROUGH POND 62
ROUTE             62     62     1      .03440   25.02   3.267   1.78046   1.800   1.136 AC-FT= 1.098
*S ROUTED FLOW OUT OF POND 62
*S ADD HYD ID=11 TO ID=1 AND ROUTE THIS FLOW THROUGH THE 30" STORM DRAIN
ROUTE             63     63     1      .03440   81.18   3.257   1.77514   1.500   3.687 PER IMP= 61.00
ADD HYD          POND 62 1&1 1     .07030   51.38   6.678   1.78106   1.800   1.142
ROUTE             62     12     .07030   51.40   6.678   1.78107   1.800   1.142
*S HYDROGRAPH ID = 12 IS THE ROUTED FLOW DOWN THE 30" STORM DRAIN PIPE
*S COMPUTE HYD FOR BASIN 301.63
COMPUTE NM HYD    301.63   -      63     .03440   81.18   3.257   1.77514   1.500   3.687 PER IMP= 61.00
*S ROUTE ID=63 THROUGH POND 63
ROUTE RESERVOIR  63     63     1      .03440   25.02   3.267   1.78046   1.800   1.136 AC-FT= 1.098
*S ROUTED FLOW OUT OF POND 63
*S ADD HYD ID=12 TO ID=1 AND ROUTE THIS FLOW THROUGH THE 36" STORM DRAIN

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*S TO POND. 64
ADD HYD      POND. 63  1.612    1   .10470    76.42    9.944   1.78086   1.800   1.140
ROUTE       .63     1     13   .10470    76.44    9.944   1.78087   1.800   1.141
*S HYDROGRAPH ID = 13 IS THE ROUTED FLOW DOWN THE 36" STORM DRAIN PIPE
*S TO THE INLET OF POND. 64 TO THIS STORM DRAIN PIPE
*S COMPUTE HYD FOR BASIN 301.64
COMPUTE NM HYD 301.64 -   64   .03440   81.18    3.257   1.77514   1.500   3.687 PER IMP= 61.00
*S ROUTE ID=64 THROUGH POND. 64
ROUTE        .64     1     14   .13910   101.46   13.211   1.78076   1.800   1.140
ROUTE RESERVOIR .64     64   .03440   25.02    3.267   1.78046   1.800   1.136 AC-ET= 1.098
*S ROUTED FLOW OUT OF POND. 64
*S ADD HYD ID=13 TO ID=1 AND ROUTE THIS FLOW THROUGH THE 36" STORM DRAIN
*S TO POND. 65
ADD HYD      POND. 64  1.613    1   .13910   101.46   13.211   1.78076   1.800   1.140
ROUTE       .64     1     14   .13910   101.46   13.211   1.78077   1.800   1.140
*S HYDROGRAPH ID = 14 IS THE ROUTED FLOW DOWN THE 36" STORM DRAIN PIPE
*S TO THE INLET OF POND. 64 TO THIS STORM DRAIN PIPE
*S COMPUTE HYD FOR BASIN 301.65
COMPUTE NM HYD 301.65 -   65   .03440   81.18    3.257   1.77514   1.500   3.687 PER IMP= 61.00
*S ROUTE ID=65 THROUGH POND. 65
ROUTE        .65     65     1   .03440   25.02    3.267   1.78046   1.800   1.136 AC-ET= 1.098
ROUTE RESERVOIR .65     65     1   .03440   25.02    3.267   1.78046   1.800   1.136 AC-ET= 1.098
*S ROUTED FLOW OUT OF POND. 65
*S ADD HYD ID=14 TO ID=1 AND ROUTE THIS FLOW THROUGH THE 36" STORM DRAIN
*S TO SNOW VISTA CHANNEL
ADD HYD      POND. 65  1.614    1   .17350   126.48   16.477   1.78070   1.800   1.139
*S COMPUTE HYD FOR BASIN 301.05
COMPUTE NM HYD 301.05 -   5     .03280   77.40    3.105   1.77514   1.500   3.687 PER IMP= 61.00
*S TOTAL FLOW AT AP-22.1 IN SNOW VISTA CHANNEL
ADD HYD      301.00  88E 1   3     1.07723   870.85   111.334   1.93785   1.600   1.263
*S HYD=AP22.1 IS ****AP 22.1*****
ADD HYD      AP22.1  3& 5   2     1.11003   916.28   114.439   1.93304   1.600   1.290
ROUTE       301.60   2     1     1.11003   925.36   114.436   1.93299   1.600   1.303
*S COMPUTE HYD FOR BASIN 301.04
COMPUTE NM HYD 301.04 -   4     .07660   180.72    7.252   1.77515   1.500   3.686 PER IMP= 61.00
*S HYD=AP22.2 IS ****AP 22.2*****
ADD HYD      AP22.2  1& 4   1     1.18663   1031.47   121.688   1.92280   1.600   1.358
ROUTE       300.00   1     9     1.18663   1037.20   121.687   1.92278   1.600   1.366
*S COMPUTE HYD FOR BASIN 301.71
COMPUTE NM HYD 301.71 -   71   .06940   163.75    6.570   1.77514   1.500   3.687 PER IMP= 61.00
*S ROUTE THIS FLOW DOWN THE 60" STORM DRAIN PIPE LINE TO 301.72
ROUTE       .71     71     11   .06940   167.38    6.570   1.77515   1.500   3.769
*S COMPUTE HYD FOR BASIN 301.72
COMPUTE NM HYD 301.72 -   72   .04220   99.58    3.995   1.77514   1.500   3.687 PER IMP= 61.00
*S ADD BASIN 301.71 AND ROUTE THIS FLOW DOWN THE 60" STORM DRAIN PIPE LINE TO 3
ADD HYD      301.72  72E 11  2     .11160   266.96   10.566   1.77514   1.500   3.738
ROUTE       .71     2     11   .11160   269.93   10.566   1.77515   1.500   3.779
*S COMPUTE HYD FOR BASIN 301.74
COMPUTE NM HYD 301.74 -   74   .00910   21.88    .830   1.71015   1.500   3.757 PER IMP= 50.00
*S ADD BASIN 301.72 AND BASIN 301.74
ADD HYD      301.74  74E 11  11   .12070   291.81   11.396   1.77024   1.500   3.778
COMPUTE NM HYD 301.73 -   73   .01940   45.78    1.837   1.77514   1.500   3.688 PER IMP= 61.00
*S ADD HYDROGRAPHS FROM

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ADD HYD      301.73 73&11   4     .14010    337.60    13.232    1.77092    1.500    3.765
*S COMPUTE HYD FOR BASIN 301.03
COMPUTE NM HYD 301.03   -      3     .34380    810.21    32.549    1.77514    1.500    3.682 PER IMP= 61.00
*S HYDROGRAPH ID 73 IS THE INFLOW TO THE SNOW VISTA CHANNEL AT AP-23
ADD HYD      301.03 3& 4   73     .48390   1147.81    45.761    1.77392    1.500    3.706
*S HYD=AP23 IS ****AP 23*****
ADD HYD      AP23  9&73   1     1.67053   2058.10    167.468    1.87966    1.500    1.925
ROUTE       400.00   1     2     1.67053   2065.12    167.468    1.87965    1.500    1.932
ROUTE       500.00   2     3     1.67053   2022.43    167.464    1.87961    1.500    1.892
ROUTE       600.00   3     4     1.67053   2008.97    167.462    1.87960    1.550    1.879
*S COMPUTE HYD FOR BASIN 301.02
COMPUTE NM HYD 301.02   -      2     .03910    92.26     3.702    1.77514    1.500    3.687 PER IMP= 61.00
ROUTE RESERVOIR   .02   2     1     .03910    44.19     3.702    1.77514    1.650    1.766 AC-FT= 1.152
ADD HYD      AP23.1  4& 1   3     1.70963   2048.99    171.164    1.87720    1.550    1.873
ROUTE       700.00   3     2     1.70963   2040.10    171.156    1.87711    1.550    1.865
*S COMPUTE HYD FOR BASIN 301.01
COMPUTE NM HYD 301.01   -      1     .07810    184.26    7.394    1.77514    1.500    3.686 PER IMP= 61.00
ROUTE RESERVOIR   .01   1     5     .07810    102.50    7.394    1.77514    1.600    2.051 AC-FT= 1.789
ADD HYD      AP23.2  5& 2   6     1.78773   2142.56    178.549    1.87266    1.550    1.873
ROUTE       800.00   6     4     1.78773   2038.68    178.537    1.87252    1.600    1.782
*S COMPUTE HYD FOR BASIN 301.00
COMPUTE NM HYD 300.00   -      1     .05156    121.66    4.881    1.77514    1.500    3.687 PER IMP= 61.00
ROUTE RESERVOIR   .01   1     5     .05156    42.85    4.881    1.77514    1.750    1.298 AC-FT= 1.790
*S HYD=AP24 IS ****AP 24****
ADD HYD      SV_DMP2.HYD 5& 4   2     1.83929   2081.41    183.418    1.86979    1.600    1.768
ROUTE       2       66     1.83929   2062.57    183.409    1.86969    1.600    1.752
FINISH

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APPENDIX B
TOWER SAGE BASIN
AHYMO PRINTOUTS

Input File Revisions

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START          0.0 HOURS  PC=0  PL=-1
*S
*S      TOWER/SAGE WATERSHED SAD 222
*S
*S 100-YR, 24-HR STORM WITH SEDIMENT
*S FILE NAME: TS_DMPR.DAT
*S BY: RICHARD STOCKTON  PEER REVIEWED BY: DEBORAH DIXON
*S LAST REVISION: 06-8-99 (kmj HYD=AP#22R)
*S DMG* REVISION 11-20-00: ADDED SUBASIN 190B TO SUBASIN A1-D
*S DMG* REVISED SUBASIN A2-D AREA
***** ****
***S100 YEAR 24HR STORM DEVELOPED CONDITION
RAINFALL      TYPE=2  0.0  1.87  2.20  2.66  DT=0.05
** 10 YEAR 24HR STORM DEVELOPED CONDITION
**RAINFALL    TYPE=2  0.0  1.25  1.47  1.77  DT=0.05
** 2 YEAR 24HR STORM DEVELOPED CONDITION
**RAINFALL    TYPE=2  0.0  0.74  0.95  1.15  DT=0.05
***** ****
*LH*  THIS IS THE INPUT FILE FOR THE MASTER DRAINAGE STUDY FOR SAD-222 AREA.
*LH*  DEVELOPED CONDITIONS
*LH**  INPUT FILE NAME: MASTER24.IN
*LH**  100 YEAR 24 HOUR STORM.
*LH**
*LH***** Set time to start ****
*LH**
*LH*START        TIME = 0.0
*LH**
*LH***** COMPUTE RAINFALL DISTRIBUTION
*LH**
*LH*RAINFALL    TYPE=2
*LH*          RAIN QUARTER=0.0      RAIN ONE = 1.90 IN
*LH*          RAIN SIX=2.21 IN     RAIN DAY = 2.67 IN
*LH*          DT=0.075
*LH**
*LH**
*LH**  THE FOLLOWING HYDROLOGY IS TO DETERMINE THE TOTAL FLOW AND VOLUME INTO
*LH**  TOWER POND.
*LH**
*LH**
*LH**  SEDIMENT BULKING FACTOR = 5%
*LH**
*LH**SEDIMENT BULK      CODE=1  BULK FACTOR=1.05
*
*DMG* (REVISION 11-20-00: ADD SUBASIN 190B AT SUNSET GARDENS TO TOWER-SAGE BASIN)
*
COMPUTE NM HYD   ID=3  HYD=190B  DA==0.01252 SM
                 %A=0  %B=15.0  %C=0.0  %D=85.0 TP=0.13333
                 MASS RAINFALL=-1
PRINT HYD        ID=3  CODE=1
*DMG* USE A ROUTE RESERVOIR ROUTINE TO SIMULATE CONTROLLED DISCHARGE
*DMG* ASSUMED ALLOWABLE DISCHARGE Q=10.32 cfs
*
ROUTE RESERVOIR ID=1 HYDROGRAPH NO=190.1 INFLOW ID=3 CODE=24
                 OUTFLOW(cfs)  STORAGE(ac ft)  ELEV(ft)
                 0            0.0           100
                 10.31        0.001         100.1
                 10.32        1.30          105
PRINT HYD        ID=1  CODE=1
*
***** BASIN A1-D
*
COMPUTE NM HYD   ID=2  HYD NO=A1-D&AP#1 DRAINAGE AREA=.0458 SQ MI
                 PERCENT A=0 PERCENT B=24 PERCENT C=0 PERCENT D=76
                 TP=.15 HRS
                 MASSRAINFALL=-1
PRINT HYD        ID=2  CODE=1
*
*DMG* ADD SUBASIN 190 TO SUBASIN A1-D
*
ADD HYD         ID=3  HYD NO=AP#2  ID I=1  ID II=2

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*
*      TOTAL FLOW AT AP#2
*
PRINT HYD           ID=3  CODE=1
*
*      TOTAL FLOW AT AP#1
*
PRINT HYD           ID=3  CODE=1
*
*****
ROUTE FLOW AT AP#1 TO AP#2 THROUGH PIPE IN 98TH ST.
*
COMPUTE RATING CURVE ID=1  VS NO=1  CODE=-1 SLP=0.0085 DIA=4.0 FT N=0.015
*
COMPUTE TRAVEL TIME ID=2  REACH=1  NO VS=1
L=1000  SLP=0.0085
*
ROUTE           ID=2  HYD NO=AP-1R
INFLOW=3 DT=0.00
*
PRINT HYD           ID=2  CODE=1
**
*DMG* REVISED SUBASIN A2-D AREA AND LAND TREATMENT VALUES (INCLUDES EUCARIZ AND 98TH ST) →
*
*****
BASIN A2-D
**
COMPUTE NM HYD     ID=3 HYD NO=A2-D DRAINAGE AREA=.04067 SQ MI
PERCENT A=0 PERCENT B=20 PERCENT C=20 PERCENT D=60
TP=.14 HRS
MASSRAINFALL=-1
*
PRINT HYD           ID=3  CODE=1
*
*****
ADD HYDROGRAPHS A1-D, A2-D
*
ADD HYD           ID=10  HYD NO=AP#2  ID I=2  ID II=3
*
*      TOTAL FLOW AT AP#2
*
PRINT HYD           ID=10  CODE=1
*
*****
ROUTE FLOW AT AP#2 TO AP#3 THROUGH PIPE IN 98TH ST.
*
COMPUTE RATING CURVE ID=1  VS NO=1  CODE=-1 SLP=0.0072 DIA=5.0 FT N=0.015
*
COMPUTE TRAVEL TIME ID=2  REACH=1  NO VS=1
L=1150  SLP=0.0072
*
ROUTE           ID=2  HYD NO=AP#2R
INFLOW=10 DT=0.00
*
PRINT HYD           ID=2  CODE=1
*
*****
BASIN A3-D
*
COMPUTE NM HYD     ID=3 HYD NO=A3-D DRAINAGE AREA=.0419 SQ MI
PERCENT A=0 PERCENT B=35 PERCENT C=0 PERCENT D=65
TP=.13 HRS
MASSRAINFALL=-1
*
PRINT HYD           ID=3  CODE=1
*
*****
ADD HYDROGRPAHS A1-D, A2-D, A3-D
*
ADD HYD           ID=10  HYD NO=AP#3  ID I=2  ID II=3
*
*      TOTAL FLOW AT AP#3

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Summary File w/ Revisions

AHYMO SUMMARY TABLE (AHYMO194) - AMAFCA Hydrologic Model - January, 1994

INPUT FILE = TS_DMFR.DAT

RUN DATE (MON/DAY/YR) = 11/21/2000
USER NO. = M_GOODWIN.101

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	TIME TO PEAK (HOURS)	CFS PER ACRE	PAGE = NOTATION
START									1 .00
*S	TOWER/SAGE WATERSHED SAD 222								
*S	100-YR, 24-HR STORM WITH SEDIMENT								
*S	FILE NAME: TS_DMFR.DAT								
*S	BY: RICHARD STOCKTON								
*S	LAST REVISION: 06-8-99 (kmj HYD=AP#22R)								
S	DMG REVISION 11-20-00: ADDED SUBASIN 190B TO SUBASIN A1-D								
S	DMG REVISED SUBASIN A2-D AREA								
ROUTE	RAINFALL TYPE= 2								
COMPUTE NM HYD	190B	-	3	.01252	31.70	1.444	2.16311	1.500	RAIN24= 2.660
ROUTE RESERVOIR	190.10	3	1	.01252	10.31	1.445	2.16337	1.850	PER IMP= 85.00
COMPUTE NM HYD	AP#DEAP#1	-	2	.04580	103.28	4.897	2.00463	1.500	1.287 AC-FT= .381
ADD HYD	AP#2	1& 2	3	.05832	113.59	6.341	2.03870	1.500	3.523 PER IMP= 76.00
ROUTE	AP-1R	3	2	.05832	111.50	6.341	2.03871	1.550	3.043 2.987
COMPUTE NM HYD	A2-D	-	3	.04067	90.24	3.866	2.78251	1.500	3.467 PER IMP= 60.00
ADD HYD	AP#2	2& 3	10	.09899	196.39	10.208	1.93344	1.500	3.100
ROUTE	AP#2R	10	2	.09899	194.85	10.208	1.93345	1.550	3.076
COMPUTE NM HYD	A3-D	-	3	.04190	94.80	4.047	1.81093	1.500	3.535 PER IMP= 65.00
ADD HYD	AP#3	2& 3	10	.14089	277.38	14.254	1.89700	1.550	3.076
ROUTE	AP#3R	10	2	.14089	281.60	14.254	1.89701	1.550	3.123
COMPUTE NM HYD	A4-D	-	3	.04390	101.56	4.858	2.07506	1.500	3.615 PER IMP= 80.00
ADD HYD	AP#4	2& 3	10	.18479	378.53	19.113	1.93930	1.550	3.201
ROUTE	AP#4R	10	2	.18479	381.46	19.113	1.93931	1.550	3.225
COMPUTE NM HYD	A5-D	-	3	.04520	95.53	4.102	1.72289	1.500	3.302 PER IMP= 60.00
ADD HYD	AP#5	2& 3	10	.22999	469.25	23.266	1.89677	1.550	3.188
ROUTE	AP#5R	10	2	.22999	470.67	23.266	1.89677	1.550	3.198
COMPUTE NM HYD	A6-D	-	3	.04520	88.89	3.729	1.54680	1.500	3.073 PER IMP= 50.00
ADD HYD	AP#6R	3	2	.05700	108.92	5.773	1.89898	1.600	2.986
ROUTE	AP#6	-	3	.01020	20.86	.841	1.54680	1.500	3.139
COMPUTE NM HYD	AP#7	2& 3	10	.02060	40.52	1.699	1.54680	1.500	3.074 PER IMP= 50.00
ADD HYD	PART_AP#9	10& 3	10	.29579	590.37	28.694	1.81892	1.550	3.119
ROUTE	AP#7R	20	2	.06720	123.98	6.614	1.84552	1.600	2.883
COMPUTE NM HYD	A8-DEAP#6	-	3	.05700	110.97	5.773	1.89898	1.550	3.042 PER IMP= 70.00
ROUTE	AP#6R	3	2	.05700	108.92	5.773	1.89898	1.600	2.986
COMPUTE NM HYD	A9-D	-	3	.01020	20.86	.841	1.54680	1.500	3.196 PER IMP= 50.00
ADD HYD	AP#7	2& 3	20	.06720	123.22	6.614	1.84551	1.600	2.865
ROUTE	AP#7R	20	2	.06720	123.98	6.614	1.84552	1.600	2.883
COMPUTE NM HYD	A10-D	-	3	.01020	20.86	.841	1.54680	1.500	3.196 PER IMP= 50.00
ADD HYD	AP#8	2& 3	20	.07740	138.28	7.456	1.80614	1.600	2.791
ROUTE	AP#8R	20	2	.07740	136.11	7.456	1.80615	1.600	2.748
ADD HYD	AP#9	10& 2	10	.37319	711.96	36.150	1.81627	1.550	2.981
ROUTE	AP#9R	10	2	.37319	710.84	36.150	1.81627	1.550	2.976
COMPUTE NM HYD	A11-D	-	3	.00860	20.85	.919	2.00463	1.500	3.787 PER IMP= 76.00

ADD HYD	AP#10	2& 3	20	.38179	728.87	1.82051	1.550
COMPUTE NM HYD	B1-D	AP#11	-	.02300	53.05	1.86276	1.500
ROUTE	AP#11R	2		.02300	49.30	1.86378	1.550
COMPUTE NM HYD	B2-D	-	3	.03500	76.65	1.72289	1.500
ADD HYD	AP#12	2& 3	10	.05800	122.10	1.77874	1.500
ROUTE	AP#12R	10	2	.05800	117.16	1.77876	1.500
COMPUTE NM HYD	B3-D	-	3	.04360	81.77	1.54680	1.500
ADD HYD	AP#13	2& 3	10	.04360	196.47	1.67920	1.550
ROUTE	AP#13R	10	2	.04360	101.60	1.67921	1.550
COMPUTE NM HYD	B4-D	-	3	.02300	47.03	1.54680	1.500
ADD HYD	AP#14	2& 3	10	.12460	237.27	1.897	1.495
ROUTE	AP#14R	10	12	.12460	236.83	1.65477	1.550
COMPUTE NM HYD	S1-D	AP#15	-	.03140	71.05	1.81093	1.500
ROUTE	AP#15R	3	2	.03140	69.21	1.81095	1.500
COMPUTE NM HYD	S2-D	-	3	.01630	33.33	1.54680	1.500
ADD HYD	AP#16	2& 3	10	.04770	102.54	4.377	1.359
ROUTE	AP#16R	10	2	.04770	100.02	4.377	1.276
COMPUTE NM HYD	S3-D	-	3	.05670	111.51	4.678	1.073
ADD HYD	AP#17	2& 3	10	.10440	208.85	9.055	5.00
ROUTE	AP#17R	10	2	.10440	208.86	1.62624	1.26
COMPUTE NM HYD	S4-D	-	3	.04360	84.44	4.006	0.06
ADD HYD	AP#18	2& 3	10	.14800	293.30	13.061	0.96
ROUTE	AP#18R	10	2	.14800	282.01	13.061	0.977
COMPUTE NM HYD	S5-D	-	3	.02380	51.78	2.165	1.050
ADD HYD	AP#19	2& 3	10	.17180	327.26	15.226	1.66171
ADD HYD	AP#20	12&10	10	.29640	564.09	26.222	1.65879
ADD HYD	PART AP#21	20&10	10	.67819	1292.96	63.292	1.74983
COMPUTE NM HYD	B5-D	TWRPND	-	.03910	50.89	1.489	1.71403
ADD HYD	AP#21	10& 3	20	.71729	1340.22	64.781	1.69337
ROUTE RESERVOIR	AP#22	20	12	.71729	24.89	64.690	1.69099
MODIFY TIME	AP#22	12	12	.71729	30.53	64.690	1.69099
ROUTE	AP#22R	12	2	.71729	30.53	64.606	1.68880
COMPUTE NM HYD	B6-D	-	3	.04590	63.53	4.433	1.81093
ADD HYD	AP#23	2& 3	10	.76319	90.01	69.039	1.69614
ROUTE	AP#23R	10	2	.76319	87.84	68.927	1.69339
COMPUTE NM HYD	B7-D	-	3	.05910	90.35	5.819	1.84615
ADD HYD	AP#24	2& 3	10	.82229	172.54	74.746	1.70437
ROUTE	AP#24R	10	2	.82229	170.63	74.649	1.70216
COMPUTE NM HYD	B8-D	-	3	.08910	80.38	7.350	1.54680
ADD HYD	TS2-DMP.HYD	2& 3	30	.91139	239.84	81.999	1.68697
ROUTE	A12-D	AP#26	-	.03590	84.31	3.838	1.0463
COMPUTE NM HYD	A12-D	AP#26	-	.03590	80.90	3.838	2.00464
ROUTE	A13-D	-	3	.04520	79.18	4.366	1.81093
ADD HYD	AP#27	2& 3	10	.08110	159.76	8.204	1.89667
ROUTE	AP#27R	10	2	.08110	152.20	8.204	1.89667
COMPUTE NM HYD	A14-D	-	3	.04520	59.45	4.578	1.89897
ADD HYD	AP#28	2& 3	10	.12630	195.52	12.781	1.89749
ROUTE	AP#28R	10	2	.12630	194.13	12.782	1.89749
COMPUTE NM HYD	A15-D	-	3	.02530	44.20	2.325	1.72289
ADD HYD	PART AP#33	2& 3	20	.15160	237.20	15.106	1.86835
COMPUTE NM HYD	A17-D	AP#29	-	.01080	22.09	.891	1.54680

ROUTE	AP&29R	3	2	.01080	16.02	.891	1.54684	1.600	2.317
COMPUTE NM HYD	A18-D	-	3	.01030	22.57	.946	1.72289	1.500	3.423
ADD HYD	AP#30	2& 3	10	.02110	35.43	1.837	1.63273	1.550	PER IMP= 60.00
ROUTE	AP&30R	10	2	.02110	25.29	1.837	1.63269	1.650	2.624
COMPUTE NM HYD	A19-D	-	3	.01080	20.14	.992	1.72289	1.550	1.873
ADD HYD	AP#31	2& 3	10	.03190	43.04	2.830	1.66321	1.600	2.914
ROUTE	AP#31R	10	2	.03190	42.34	2.830	1.66321	1.600	PER IMP= 60.00
COMPUTE NM HYD	A20-D	-	3	.00690	15.12	.634	1.72289	1.500	3.424
ADD HYD	AP#32	2& 3	10	.03880	52.59	3.464	1.67382	1.600	2.118
ROUTE	AP#32R	10	22	.03880	49.74	3.464	1.67381	1.650	2.003
ADD HYD	AP#33	20&22	10	.19040	286.03	18.570	1.82870	1.600	2.347
ROUTE	AP#33R	10	2	.19040	283.46	18.570	1.82870	1.650	2.326
COMPUTE NM HYD	A16-D	-	3	.06380	71.41	5.263	1.54680	1.750	1.749
ADD HYD	TS1_DMP.HYD	2& 3	10	.25420	347.92	23.833	1.75795	1.650	PER IMP= 50.00
COMPUTE NM HYD	S6-D&AP#35	-	3	.03780	51.00	3.473	1.72289	1.700	2.108
ROUTE	AP#35R	3	2	.03780	50.09	3.473	1.72289	1.700	PER IMP= 60.00
COMPUTE NM HYD	S7-D	-	3	.05700	65.54	5.826	1.91658	1.850	2.070
ADD HYD	AP#36	2& 3	10	.09480	110.86	9.300	1.83933	1.800	1.797
ROUTE	AP#36R	10	2	.09480	108.65	9.300	1.83934	1.850	1.827
COMPUTE NM HYD	S8-D	-	3	.06830	81.37	6.468	1.77571	1.750	1.791
ADD HYD	AP#37	2& 3	10	.16310	189.29	15.768	1.81269	1.800	1.861
ROUTE	AP#37R	10	2	.16310	188.47	15.768	1.81269	1.800	1.806
COMPUTE NM HYD	S9-D	-	3	.07480	152.95	6.171	1.54680	1.500	3.195
ADD HYD	TS3_DMP.HYD	2& 3	20	.23790	235.52	21.939	1.72909	1.750	PER IMP= 50.00
FINISH									

* REVISED DEVELOPED CONDITIONS 11-20-00

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 *
 * THE FOLLOWING IS TO DETERMINE THE FLOW INTO THE AMOLE DEL NORTE CHANNEL
 * FROM THE SAN YAGNACIO STORM DRAIN LINE.
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***** ROUTE HYDROGRAPH THROUGH THE TOWER DETENTION POND

ROUTE RESERVOIR	ID=12	HYD NO=AP#22	INFLOW ID=20	CODE=20.2
	OUTFLOW (CFS)	STORAGE (AC-FT)	ELEVATION (FT)	
	0.0	0.0	72.0	
	11.9	5.8	76.0	
	17.4	13.0	80.0	
	18.5	15.2	81.0	
	19.6	17.7	82.0	
	20.6	20.5	83.0	
	21.5	23.8	84.0	
	22.5	28.2	85.0	
	23.3	34.4	86.0	
	25.0	49.9	88.0	
	25.8	58.0	89.0	
	3000.0	84.4	92.0	

* * * * *

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	72.00	.000	.00
1.00	.00	72.00	.000	.00
2.00	372.33	86.87	41.178	24.04
3.00	22.70	87.87	48.879	24.89
4.00	8.28	87.74	47.900	24.78
5.00	7.02	87.56	46.458	24.62
6.00	8.32	87.37	45.055	24.47
7.00	10.06	87.22	43.831	24.33
8.00	9.52	87.06	42.636	24.20
9.00	8.93	86.90	41.403	24.07
10.00	8.44	86.74	40.138	23.93
11.00	7.99	86.57	38.846	23.79
12.00	7.62	86.40	37.531	23.64
13.00	7.25	86.23	36.197	23.50
14.00	6.93	86.06	34.847	23.35
15.00	6.64	85.85	33.485	23.18
16.00	6.38	85.63	32.115	23.01
17.00	6.13	85.41	30.738	22.83
18.00	5.90	85.19	29.357	22.65
19.00	5.70	84.95	27.972	22.45
20.00	5.52	84.63	26.593	22.13
21.00	5.33	84.32	25.224	21.82
22.00	5.16	84.02	23.867	21.52
23.00	5.01	83.61	22.524	21.15
24.00	4.86	83.21	21.198	20.79
25.00	.34	82.71	19.677	20.31
26.00	.02	82.12	18.031	19.72
27.00	.00	81.49	16.429	19.04
28.00	.00	80.86	14.884	18.34
29.00	.00	80.18	13.399	17.60
30.00	.00	79.43	11.982	16.62
31.00	.00	78.70	10.651	15.61
32.00	.00	78.00	9.401	14.65
33.00	.00	77.35	8.228	13.75
34.00	.00	76.74	7.126	12.91
35.00	.00	76.16	6.092	12.12
36.00	.00	75.55	5.146	10.56
37.00	.00	75.00	4.343	8.91

38.00	.00	74.53	3.666	7.52
39.00	.00	74.13	3.094	6.35
40.00	.00	73.80	2.611	5.36
41.00	.00	73.52	2.204	4.52
42.00	.00	73.28	1.860	3.82
43.00	.00	73.08	1.570	3.22
44.00	.00	72.91	1.325	2.72
45.00	.00	72.77	1.119	2.30
46.00	.00	72.65	.944	1.94
47.00	.00	72.55	.797	1.64
48.00	.00	72.46	.673	1.38
49.00	.00	72.39	.568	1.16
50.00	.00	72.33	.479	.98
51.00	.00	72.28	.404	.83
52.00	.00	72.24	.341	.70
53.00	.00	72.20	.288	.59
54.00	.00	72.17	.243	.50
55.00	.00	72.14	.205	.42

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
56.00	.00	72.12	.173	.36
57.00	.00	72.10	.146	.30
58.00	.00	72.09	.123	.25
59.00	.00	72.07	.104	.21

PEAK DISCHARGE = 24.888 CFS - PEAK OCCURS AT HOUR 3.00

MAXIMUM WATER SURFACE ELEVATION = 87.868

MAXIMUM STORAGE = 48.8790 AC-FT INCREMENTAL TIME= .100000HRS

Summary File - Before Revisions

AHYMO SUMMARY TABLE (AHYMO194) - AMAFCA Hydrologic Model - January, 1994

INPUT FILE = TS_DMPC.DAT

RUN DATE (MON/DAY/YR) =11/20/2000
USER NO.= M_GOODWIN.I01

COMMAND	HYDROGRAPH IDENTIFICATION NO.	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	PAGE = 1	NOTATION
START										TIME= .00	
*S	TOWER/SAGE WATERSHED SAD 222										
*S											
*S	100-YR, 24-HR STORM WITH SEDIMENT										
*S	FILE NAME: TS_DMPC.DAT										
*S	BY: RICHARD STOCKTON										
*S	LAST REVISION: 06-8-99 (Kmij HYD=AP#222R)										
RAINFALL TYPE= 2											
COMPUTE NM HYD	AI-D&AP#1	-	3	.04580	103.28	4.897	2.00463	1.500	3.523 PER IMP=	2.660	
ROUTE	AP#1R	3	2	.04580	101.55	4.897	2.00464	1.500	3.464 PER IMP=	76.00	
COMPUTE NM HYD	A2-D	-	3	.03950	89.28	4.001	1.89898	1.500	3.532 PER IMP=	70.00	
ADD HYD	AP#2	2& 3	10	.08530	185.32	8.897	1.95570	1.500	3.395 PER IMP=		
ROUTE	AP#2R	10	2	.08530	184.43	8.897	1.95571	1.550	3.378 PER IMP=		
COMPUTE NM HYD	A3-D	-	3	.04190	94.80	4.047	1.81093	1.500	3.535 PER IMP=	65.00	
ADD HYD	AP#3	2& 3	10	.12720	266.97	12.944	1.90801	1.550	3.279 PER IMP=		
ROUTE	AP#3R	10	2	.12720	271.22	12.944	1.90801	1.550	3.332 PER IMP=		
COMPUTE NM HYD	A4-D	-	3	.C4.390	101.56	4.858	2.07506	1.500	3.615 PER IMP=	80.00	
ADD HYD	AP#4	2& 3	10	.17110	368.16	17.802	1.95087	1.550	3.362 PER IMP=		
ROUTE	AP#4R	10	2	.17110	371.05	17.802	1.95087	1.550	3.388 PER IMP=		
COMPUTE NM HYD	A5-D	-	3	.04520	95.53	4.153	1.72289	1.500	3.302 PER IMP=	60.00	
ADD HYD	AP#5	2& 3	10	.21630	458.83	21.956	1.90323	1.550	3.314 PER IMP=		
ROUTE	AP#5R	10	2	.21630	460.09	21.956	1.90323	1.550	3.324 PER IMP=		
COMPUTE NM HYD	A6-D	-	3	.04520	88.89	3.729	1.54680	1.500	3.073 PER IMP=	50.00	
ADD HYD	AP#6R	2& 3	10	.26150	542.31	25.684	1.84162	1.550	3.240 PER IMP=		
COMPUTE NM HYD	PART_AP#9	2& 3	10	.02060	40.52	1.699	1.54680	1.500	3.074 PER IMP=	50.00	
ADD HYD	AP#7	2& 3	20	.28210	579.79	27.384	1.82009	1.550	3.211 PER IMP=		
ROUTE	AP#7R	20	2	.06720	123.98	6.614	1.84552	1.600	2.883 PER IMP=		
COMPUTE NM HYD	A8-D&AP#6	-	3	.05700	110.97	5.773	1.89898	1.550	3.042 PER IMP=	70.00	
ROUTE	AP&6R	3	2	.05700	108.92	5.773	1.89898	1.600	2.986 PER IMP=		
COMPUTE NM HYD	A9-D	-	3	.01020	20.86	.841	1.54680	1.500	3.196 PER IMP=	50.00	
ADD HYD	AP#8	2& 3	20	.06720	123.22	6.614	1.84551	1.600	2.865 PER IMP=		
ROUTE	AP#8R	20	2	.35950	701.38	34.840	1.81709	1.550	3.048 PER IMP=		
ADD HYD	AP#9	10& 2	10	.35950	700.23	34.840	1.81709	1.550	3.043 PER IMP=		
ROUTE	AP#9R	10	2	.35950	700.23	34.840	1.81709	1.550	3.196 PER IMP=	50.00	
COMPUTE NM HYD	A11-D	-	3	.00860	20.85	.919	2.00463	1.500	3.049 PER IMP=	76.00	
ADD HYD	AP#10	2& 3	20	.07740	138.28	7.456	1.80614	1.600	2.748 PER IMP=		
ROUTE	AP#10R	20	2	.07740	136.11	7.456	1.80615	1.600	2.748 PER IMP=		
ADD HYD	AP#11	2& 3	20	.36810	718.26	35.759	1.82147	1.550	3.604 PER IMP=	68.00	
ROUTE	AP#11R	2	2	.02300	53.05	2.286	1.86378	1.550	3.349 PER IMP=		
COMPUTE NM HYD	B2-D	-	3	.03500	49.30	2.286	1.86378	1.550	3.422 PER IMP=	60.00	
					76.65	3.216	1.72289	1.500			

COMPUTE NM HYD	A19-D	-	3	.01080	20.14	.992	1.72289	1.550	2.914 PER IMP=	60.00
ADD HYD	AP#31	2& 3	10	.03190	43.04	2.830	1.66321	1.600	2.108	
ROUTE	AP#31R	10	2	.03190	42.34	2.830	1.66321	1.600	2.074	
COMPUTE NM HYD	A20-D	-	3	.00690	15.12	.634	1.72289	1.500	3.424 PER IMP=	60.00
ADD HYD	AP#32	2& 3	10	.03880	52.59	3.464	1.67382	1.600	2.118	
ROUTE	AP#32R	10	22	.03880	49.74	3.464	1.67382	1.650	2.003	
ADD HYD	AP#33	20&22	10	.19040	286.03	18.570	1.82870	1.600	2.347	
ROUTE	AP#33R	10	2	.19040	283.46	18.570	1.82870	1.650	2.326	
COMPUTE NM HYD	A16-D	-	3	.06380	71.41	5.263	1.54680	1.750	1.749 PER IMP=	50.00
ADD HYD	TS1_DMP.HYD	2& 3	10	.25420	347.92	23.833	1.75795	1.650	2.139	
COMPUTE NM HYD	S6-D&AP#35	-	3	.03780	51.00	3.473	1.72289	1.700	2.108 PER IMP=	60.00
ROUTE	AP#35R	3	2	.03780	50.09	3.473	1.72289	1.700	2.070	
COMPUTE NM HYD	S7-D	-	3	.05700	65.54	5.826	1.91658	1.850	1.797 PER IMP=	71.00
ADD HYD	AP#36	2& 3	10	.09480	110.86	9.300	1.83933	1.800	1.827	
ROUTE	AP#36R	10	2	.09480	108.65	9.300	1.83934	1.850	1.791	
COMPUTE NM HYD	S8-D	-	3	.06830	81.37	6.468	1.77571	1.750	1.861 PER IMP=	63.00
ADD HYD	AP#37	2& 3	10	.16310	189.29	15.768	1.81269	1.800	1.813	
ROUTE	AP#37R	10	2	.16310	188.47	15.768	1.81269	1.800	1.806	
COMPUTE NM HYD	S9-D	-	3	.07480	152.95	6.171	1.54680	1.500	3.195 PER IMP=	50.00
ADD HYD	TS3_DMP.HYD	2& 3	20	.23790	235.52	21.939	1.72909	1.750	1.547	
FINISH										

Tower Pond - Before Revisions

*
 *
 ***** ROUTE FLOW AT AP#9 TO AP#10 THROUGH PIPE IN TOWER RD.
 *
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 *
 * THE FOLLOWING IS TO DETERMINE THE FLOW INTO THE AMOLE DEL NORTE CHANNEL
 FROM THE SAN YAGNACIO STORM DRAIN LINE.
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 **** ROUTE HYDROGRAPH THROUGH THE TOWER DETENTION POND

ROUTE RESERVOIR	ID=12	HYD NO=AP#22	INFLOW ID=20	CODE=20.2
	OUTFLOW (CFS)	STORAGE (AC-FT)	ELEVATION (FT)	
	0.0	0.0	72.0	
	11.9	5.8	76.0	
	17.4	13.0	80.0	
	18.5	15.2	81.0	
	19.6	17.7	82.0	
	20.6	20.5	83.0	
	21.5	23.8	84.0	
	22.5	28.2	85.0	
	23.3	34.4	86.0	
	25.0	49.9	88.0	
	25.8	58.0	89.0	
	3000.0	84.4	92.0	

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TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	72.00	.000	.00
1.00	.00	72.00	.000	.00
2.00	363.29	86.81	40.659	23.99
3.00	22.40	87.73	47.805	24.77
4.00	8.15	87.60	46.820	24.66
5.00	6.90	87.42	45.378	24.50
6.00	8.18	87.24	43.973	24.35
7.00	9.88	87.08	42.746	24.22
8.00	9.35	86.92	41.546	24.08
9.00	8.78	86.76	40.310	23.95
10.00	8.29	86.60	39.041	23.81
11.00	7.85	86.43	37.747	23.67
12.00	7.49	86.26	36.431	23.52
13.00	7.13	86.09	35.096	23.38
14.00	6.81	85.89	33.746	23.22
15.00	6.52	85.68	32.386	23.04
16.00	6.27	85.45	31.018	22.86
17.00	6.03	85.23	29.643	22.69
18.00	5.80	85.01	28.265	22.51
19.00	5.60	84.70	26.888	22.20
20.00	5.42	84.39	25.521	21.89
21.00	5.23	84.08	24.165	21.58
22.00	5.07	83.70	22.821	21.23
23.00	4.92	83.30	21.494	20.87
24.00	4.78	82.89	20.184	20.49
25.00	.33	82.35	18.686	19.95
26.00	.02	81.75	17.070	19.32
27.00	.00	81.12	15.502	18.63

28.00	.00	80.45	13.992	17.90
29.00	.00	79.75	12.545	17.05
30.00	.00	78.99	11.179	16.01
31.00	.00	78.28	9.897	15.03
32.00	.00	77.61	8.693	14.11
33.00	.00	76.98	7.563	13.25
34.00	.00	76.39	6.502	12.44
35.00	.00	75.80	5.511	11.31
36.00	.00	75.21	4.651	9.54
37.00	.00	74.71	3.926	8.05
38.00	.00	74.29	3.314	6.80
39.00	.00	73.93	2.797	5.74
40.00	.00	73.63	2.361	4.84
41.00	.00	73.37	1.992	4.09
42.00	.00	73.16	1.682	3.45
43.00	.00	72.98	1.419	2.91
44.00	.00	72.83	1.198	2.46
45.00	.00	72.70	1.011	2.07
46.00	.00	72.59	.853	1.75
47.00	.00	72.50	.720	1.48
48.00	.00	72.42	.608	1.25
49.00	.00	72.35	.513	1.05
50.00	.00	72.30	.433	.89
51.00	.00	72.25	.366	.75
52.00	.00	72.21	.309	.63
53.00	.00	72.18	.260	.53
54.00	.00	72.15	.220	.45
55.00	.00	72.13	.186	.38

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
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56.00	.00	72.11	.157	.32
57.00	.00	72.09	.132	.27
58.00	.00	72.08	.112	.23
59.00	.00	72.06	.094	.19

PEAK DISCHARGE = 24.771 CFS - PEAK OCCURS AT HOUR 2.90

MAXIMUM WATER SURFACE ELEVATION = 87.730

MAXIMUM STORAGE = 47.8083 AC-FT INCREMENTAL TIME= .100000HRS

*

* AP#22 = OUTFLOW FROM TOWER DETENTION POND

*

PRINT HYD ID=12 CODE=1

HYDROGRAPH FROM AREA AP#22

RUNOFF VOLUME = 1.68920 INCHES = 63.3874 ACRE-FEET
 PEAK DISCHARGE RATE = 24.77 CFS AT 2.900 HOURS BASIN AREA = .7036 SQ. MI.