

ATTACHMENT D-1

Existing Conditions HEC-1 Input File and Output Summary

ID SOLANO COUNTY WATER AGENCY HEC 1 EXAMPLE
 ID BASED ON AN AREA AROUND BROWNS VALLEY SCHOOL IN VACAVILLE
 ID DRAINAGE CONDITIONS/FACILITIES MODIFIED FOR ILLUSTRATION PURPOSES
 ID EXISTING CONDITIONS
 ID 100-YEAR, 24-HOUR STORM EVENT
 *
 *FREE
 *DIAGRAM
 IT 5,01JAN99,0000,,03JAN99,0000
 IO 1
 *
 KK OPEN1
 KM HILLS WEST OF WRENTHAM DRIVE (MAP=28 IN)
 KM AREA TO BE DEVELOPED
 BA 0.20
 PH 100,,0.59,0.95,1.72,2.32,2.76,3.72,5.01,6.74
 PH 9.17
 LU 0.40,0.10,3
 US 0.88,0.45
 *
 KK H1
 RD 700,0.060,0.040,,TRAP,4,2.5
 *
 KK BRN2
 KM RESIDENTIAL AREA AROUND WRENTHAM DRIVE (MAP=28 IN)
 BA 0.16
 LU 0.30,0.04,34
 US 0.23,0.45
 *
 KK CO1B2
 KM COMBINE OPEN1 AND BRN2
 HC2
 *
 KK H2
 KM ROUTE TO LOCATION HB2
 RD 3240,0.010,0.015,,CIRC,4.0
 *
 KK OPEN3
 KM HILLS WEST OF WRENTHAM DRIVE (MAP=28 IN)
 KM AREA TO BE DEVELOPED
 BA 0.07
 LU 0.40,0.08,18
 US 0.55,0.45
 *
 KK OPEN4
 KM HILLS WEST OF WRENTHAM DRIVE (MAP=28 IN)
 KM AREA TO BE DEVELOPED (HYDROGRAPH HB4)
 BA 0.1
 LU 0.40,0.10,3
 US 0.77,0.45
 *
 KK CO3O4
 KM COMBINE OPEN3 AND OPEN4
 HC 2
 *
 KK H5
 RD 600,0.010,0.015,,CIRC,3.0
 *
 KK H6
 KM COMBINE OPEN3/OPEN4 WITH OPEN1/BRN2
 HC 2
 *
 KK ROUTE
 RD 1680,0.010,0.015,,CIRC,4.5
 *
 KK BRN5
 KM RUNOFF FROM URBAN AREA BRN5 (MAP = 28 IN)
 BA 0.09
 LU 0.3,0.06,45
 US 0.21,0.45
 *
 KK H7
 KM COMBINE HYDROGRAPH H6 WITH BRN5
 HC 2
 *
 KK RH7
 RD 1200,0.005,0.015,,CIRC,5.0

*
 KK BRN6
 KM URBAN AREA BETWEEN BROWNS VALLEY ROAD AND RR TRACKS (MAP = 28 IN)
 BA 0.06
 LU 0.30,0.04,40
 US 0.22,0.45
 *
 KK H8
 KM COMBINE HYDROGRAPH H7 WITH BRN6
 HC 2
 *
 KK OPEN7
 KM RUNOFF FROM RURAL AREA EAST OF RXR (MAP = 28 IN)
 BA 0.09
 LU 0.20,0.05,3
 US 0.95,0.45
 *
 KK CO7H8
 KM COMBINE HYDROGRAPH H8 WITH OPEN7
 HC 2
 *
 KK H9
 RD 1920,0.006,0.030,,TRAP,6,2.0
 *
 KK BRN8
 KM RUNOFF FROM URBAN AREA WEST OF BROWN'S VALLEY ROAD (MAP = 28 IN)
 BA 0.10
 LU 0.30,0.10,37
 US 0.22,0.45
 *
 KK H10
 KM ROUTE TO LOCATION H10
 RD 1200,0.008,0.015,,CIRC,3.0
 *
 KK BRN9
 KM RUNOFF FROM URBAN AREA BROWNS VALLEY ROAD AND RR TRACKS (MAP = 28 IN)
 BA 0.13
 LU 0.30,0.09,40
 US 0.25,0.45
 *
 KK CB9H10
 KM COMBINE BRN 9 WITH HYDROGRAPH H10
 HC 2
 *
 KK H11
 RD 1680,0.008,0.015,,CIRC,3.0
 RD 720,0.008,0.015,,CIRC,4.0
 *
 KK OPEN10
 KM RUNOFF FROM RURAL AREA EAST OF RR TRACKS (MAP = 28 IN)
 BA 0.07
 LU 0.20,0.09,3
 US 0.90,0.45
 *
 KK CH11O10
 KM COMBINE HYDROGRAPH HB11 AND OPEN10
 HC 2
 *
 KK H12
 KM ROUTE TO PLANNED DETENTION BASIN
 RD 1800,0.005,0.030,,TRAP,6,2.0
 *
 KK CH9H12
 KM COMBINE HYDROGRAPH H9 AND HYDROGRAPH H12 FOR FLOW INTO DETENTION BASIN
 HC 2
 ZZ

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			BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
					6-HOUR	24-HOUR	72-HOUR			
+	HYDROGRAPH AT									
+		OPEN1	125.	13.33	64.	23.	22.	.20		
+	ROUTED TO									
+		H1	125.	13.33	64.	23.	22.	.20		
+	HYDROGRAPH AT									
+		BRN2	231.	12.67	61.	26.	25.	.16		
+	2 COMBINED AT									
+		CO1B2	299.	12.75	123.	49.	47.	.36		
+	ROUTED TO									
+		H2	295.	12.75	123.	49.	47.	.36		
+	HYDROGRAPH AT									
+		OPEN3	60.	13.00	25.	9.	9.	.07		
+	HYDROGRAPH AT									
+		OPEN4	68.	13.25	32.	12.	11.	.10		
+	2 COMBINED AT									
+		CO304	125.	13.17	57.	21.	20.	.17		
+	ROUTED TO									
+		H5	125.	13.17	57.	21.	20.	.17		
+	2 COMBINED AT									
+		H6	395.	12.83	180.	70.	67.	.53		
+	ROUTED TO									
+		ROUTE	395.	12.92	180.	69.	67.	.53		
+	HYDROGRAPH AT									
+		BRN5	136.	12.67	34.	14.	14.	.09		
+	2 COMBINED AT									
+		H7	505.	12.83	214.	84.	81.	.62		
+	ROUTED TO									
+		RH7	502.	12.83	214.	84.	81.	.62		
+	HYDROGRAPH AT									
+		BRN6	88.	12.67	23.	10.	9.	.06		
+	2 COMBINED AT									
+		H8	578.	12.83	236.	93.	90.	.68		
+	HYDROGRAPH AT									
+		OPEN7	57.	13.42	31.	13.	12.	.09		
+	2 COMBINED AT									
+		CO7H8	616.	12.83	267.	106.	103.	.77		
+	ROUTED TO									
+		H9	612.	12.92	267.	106.	102.	.77		
+	HYDROGRAPH AT									
+		BRN8	145.	12.67	36.	14.	13.	.10		
+	ROUTED TO									
+		H10	141.	12.75	36.	14.	13.	.10		
+	HYDROGRAPH AT									
+		BRN9	179.	12.75	47.	19.	18.	.13		
+	2 COMBINED AT									
+		CB9H10	320.	12.75	83.	33.	32.	.23		
+	ROUTED TO									
+		H11	318.	12.75	83.	33.	32.	.23		
+	HYDROGRAPH AT									
+		OPEN10	44.	13.33	23.	9.	8.	.07		
+	2 COMBINED AT									
+		CH11010	344.	12.75	105.	41.	40.	.30		
+	ROUTED TO									
+		H12	335.	12.83	105.	41.	40.	.30		
+	2 COMBINED AT									
+		CH9H12	940.	12.83	371.	147.	142.	1.07		