

**NORTH SIDE AREAS
HYDROLOGY CALCULATIONS FOR
UNDEVELOPED, CLEAR AND BURN CONDITIONS**

**NORTH AREA "D" (UNDEVELOPED)
NORTH AREA "B" (UNDEVELOPED)
NORTH AREA "C" (UNDEVELOPED)**

NORTH AREA "D" UNDEV. DRAINAGE AREA

4LADEPTH	RDT	1A Canyon hills - 50 YEAR UNDEV. Clear (new methodology) MRU 11/12/2002	G1
5	1	1A Canyon hills - 50 YEAR UNDEV. Clear (new methodology) MRU 11/12/2002	
5	1	15A flood hydrograph	
6	1	1A 68 0172.911A461	320 09380
6	1	2B 68 0121 9A46	
6	1	3AB 68 A461	250 08800
6	1	4C 68 1054.6 9A46	
6	1	5AC 68 A461	250 06400
6	1	6A 68 01 7.4 5A461	720 06390
6	1	7D 68 1377.7 8A46	
6	1	8AD 68 A46	
6	1	9A 68 0118.2 6A461	100 06000
6	1	10A 68 0111.4 6A461	510 03920
6	1	11A 68 0114.7 5A461	520 07690
6	1	12A 68 01 8.3 5A46	
6	1	13E 68 0124.6 7A46	
6	1	14AE 68 A46	
6	1	15A 68 01 7.2 5A46	

AREA 'D' UNDEVELOPED SITE N/O 210 FRWY

$Q_{50 UD_e} = 879$ CFS. CLEAR

$Q_{50 UDA} = 1019$ CFS. BURNED.

4LDEPTH.RDT 1A Canyon hills - 50 YEAR UNDEV. Burned (new methodology) MRU 11/12/2002

5	1	1A Canyon hills - 50 YEAR UNDEV. Burned (new methodology)	MRU 11/12/2002
5	1	15A flood hydrograph	
6	1	1A 178 0372.911A461	320 09380
6	1	2B 178 0321 9A46	
6	1	3AB178 A461	250 08800
6	1	4C 178 1054.6 9A46	
6	1	5AC178 A461	250 06400
6	1	6A 178 03 7.4 5A461	720 06390
6	1	7D 178 1377.7 8A46	
6	1	8AD178 A46	
6	1	9A 178 0318.2 6A461	100 06000
6	1	10A 178 0311.4 6A461	510 03920
6	1	11A 178 0314.7 5A461	520 07690
6	1	12A 178 03 8.3 5A46	
6	1	13E 178 0324.6 7A46	
6	1	14AE178 A46	
6	1	15A 178 03 7.2 5A46	

G1

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1

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1

2 2

T.C. CALC. FOR NORTH AREA "D" (UNDERV.)

Project	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isolyet (in. Tc-calculat Intensity (hCu	Cd	Flowrate (c.Tc Equation
Figure 1	1A	72.9	0.03	50	68	2760	0.145	9.2	0.72	200.0959 $Tc=(10)^{-0.507*(ix)^{-0.519*(L)^{0.483*(S)^{-0.1}}$
Figure 1	2B	21	0.03	50	68	2200	0.168	9.2	0.74	63.8694 $Tc=(10)^{-0.507*(ix)^{-0.519*(L)^{0.483*(S)^{-0.1}}$
Figure 1	4C	51	0.03	50	68	2050	0.131	9.2	0.74	155.1114 $Tc=(10)^{-0.507*(ix)^{-0.519*(L)^{0.483*(S)^{-0.1}}$
Figure 1	6A	11	0.03	50	68	700	0.09	9.2	0.79	47.5343 $Tc=(10)^{-0.507*(ix)^{-0.519*(L)^{0.483*(S)^{-0.1}}$

T.C. CALCS. FOR NORTH AREA "D" (11 FEB 61)

Project	Subarea	Area (acres/imp)	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Ischyet (in. Tc-calculat)	Intensity (inCu)	Cd	Flowrate (c Tc Equation)
Figure 1	7D	78	0.03	50	3610	0.22	9.2	3.64	0.73	$207.2616 T_c = (10)^{\wedge} - 0.507^{\wedge} (x)^{\wedge} - 0.519^{\wedge} (L)^{\wedge} + 0.483^{\wedge} (S)^{\wedge} - 0.135$
Figure 1	9A	18	0.03	50	1470	0.27	9.2	4.82	0.77	$66.8052 T_c = (10)^{\wedge} - 0.507^{\wedge} (x)^{\wedge} - 0.519^{\wedge} (L)^{\wedge} + 0.483^{\wedge} (S)^{\wedge} - 0.135$
Figure 1	10A	11	0.03	50	1360	0.29	9.2	4.95	0.78	$42.471 T_c = (10)^{\wedge} - 0.507^{\wedge} (x)^{\wedge} - 0.519^{\wedge} (L)^{\wedge} + 0.483^{\wedge} (S)^{\wedge} - 0.135$
Figure 1	11A	15	0.03	50	1090	0.29	9.2	5.28	0.79	$62.6865 T_c = (10)^{\wedge} - 0.507^{\wedge} (x)^{\wedge} - 0.519^{\wedge} (L)^{\wedge} + 0.483^{\wedge} (S)^{\wedge} - 0.135$
Figure 1	12A	8	0.03	50	520	0.08	9.2	5.49	0.79	$34.6968 T_c = (10)^{\wedge} - 0.507^{\wedge} (x)^{\wedge} - 0.519^{\wedge} (L)^{\wedge} + 0.483^{\wedge} (S)^{\wedge} - 0.135$
Figure 1	13E	25	0.03	50	1770	0.28	9.2	4.54	0.76	$86.26 T_c = (10)^{\wedge} - 0.507^{\wedge} (x)^{\wedge} - 0.519^{\wedge} (L)^{\wedge} + 0.483^{\wedge} (S)^{\wedge} - 0.135$

NORTH AREA "B" WYDEV. DRAINAGE AREA

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10-17-2002 SITE LICENSEE: THE KEITH COMPANIES, INC
LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
MODIFIED RATIONAL METHOD HYDROLOGY

CANYON HILLS - 50 YEAR CLEAR NEW METHODOLOGY LRU 10/15/02
STORM DAY 4
RAIN PCT
ZONE IMPV
TC A46 0.01
A46 0.01

CONFLUENCE Q'S
1 3A TA 1153 QA 78. QAB 104. QB 104. QA 78. Q
1 3B TAB 1153 QAB 104. QA 78. QB 26. Q
1 3C TB 1153 QB 26. QBA 104. QA 78. Q

CONFLUENCE Q'S
1 6A TA 1154 QA 134. QAC 180. QC 45. Q
1 6C TC 1153 QC 52. QCA 181. QA 128. Q
1 6D TD 1153 QD 30. QCD 185. QD 30. Q

CONFLUENCE Q'S
1 9A TA 1155 QA 189. QAD 214. QD 25. Q
1 9D TAD 1154 QAD 215. QA 215. QD 30. Q
1 9E TAE 1155 QAE 305. QA 91. Q

CONFLUENCE Q'S
1 11A TA 1155 QA 215. QAE 305. QE 11. Q
1 11AE TAE 1155 QAE 305. QA 91. Q
1 11BE TBE 1155 QBE 338. QB 0. Q

LOCATION	1A	2B	3A	TA 1153 QA	87. QAB	117. QB	3AB TAB 1153 QAB	29. 117. QA	87. QB	3B TB 1153 QB	29. QBA	117. QA	87. *
	20.	6.	87.	20.	6.	87.	20.	6.	87.	20.	6.	87.	20.
	87.	29.	87.	87.	29.	87.	87.	29.	87.	87.	29.	87.	87.
	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.178	0.178	0.178	0.178	0.178	0.178	0.178	0.178	0.178	0.178	0.178	0.178	0.178
	5	5	5	5	5	5	5	5	5	5	5	5	5
	A46	A46	A46	A46	A46	A46	A46	A46	A46	A46	A46	A46	A46
	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03

CONFLUENCE Q'S

LOCATION	1	3A	TA 1153 QA	87. QAB	117. QB	3AB TAB 1153 QAB	29. 117. QA	87. QB	3B TB 1153 QB	29. QBA	117. QA	87. *
	26.	49.	117.	26.	49.	117.	26.	49.	26.	49.	117.	26.
	570.	570.	570.	570.	570.	570.	570.	570.	570.	570.	570.	570.
	0.12400	0.12400	0.12400	0.12400	0.12400	0.12400	0.12400	0.12400	0.12400	0.12400	0.12400	0.12400
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.178	0.178	0.178	0.178	0.178	0.178	0.178	0.178	0.178	0.178	0.178	0.178
	5	5	5	5	5	5	5	5	5	5	5	5
	A46	A46	A46	A46	A46	A46	A46	A46	A46	A46	A46	A46
	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03

CONFLUENCE Q'S

LOCATION	1	6A	TA 1154 QA	152. QAC	203. QC	51. 204. QA	6C TC 1153 QC	58. QCA	204. QA	146. *
	48.	52.	204.	48.	52.	204.	48.	52.	48.	52.
	590.	590.	590.	590.	590.	590.	590.	590.	590.	590.
	0.12800	0.12800	0.12800	0.12800	0.12800	0.12800	0.12800	0.12800	0.12800	0.12800
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.178	0.178	0.178	0.178	0.178	0.178	0.178	0.178	0.178	0.178
	5	5	5	5	5	5	5	5	5	5
	A46	A46	A46	A46	A46	A46	A46	A46	A46	A46
	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03

CONFLUENCE Q'S

LOCATION	1	6A	TA 1155 QA	214. QAD	243. QD	29. 245. QA	9D TD 1153 QD	39. QDA	229. QA	190. *
	48.	52.	214.	48.	52.	214.	48.	52.	48.	52.
	590.	590.	590.	590.	590.	590.	590.	590.	590.	590.
	0.12800	0.12800	0.12800	0.12800	0.12800	0.12800	0.12800	0.12800	0.12800	0.12800
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.178	0.178	0.178	0.178	0.178	0.178	0.178	0.178	0.178	0.178
	5	5	5	5	5	5	5	5	5	5
	A46	A46	A46	A46	A46	A46	A46	A46	A46	A46
	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03

CONFLUENCE Q'S

LOCATION	1	9A	TA 1155 QA	214. QAD	243. QD	29. 245. QA	9D TD 1153 QD	39. QDA	229. QA	190. *
	60.	28.	105.	60.	28.	105.	60.	28.	60.	28.
	245.	105.	245.	245.	105.	245.	245.	105.	245.	105.
	0.16000	0.16000	0.16000	0.16000	0.16000	0.16000	0.16000	0.16000	0.16000	0.16000
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.178	0.178	0.178	0.178	0.178	0.178	0.178	0.178	0.178	0.178
	8	8	8	8	8	8	8	8	8	8
	A46	A46	A46	A46	A46	A46	A46	A46	A46	A46
	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03

CONFLUENCE Q'S

LOCATION	1	11A	TA 1155 QA	243. QAE	347. QE	103. 347. QA	11E TE 1153 QE	105. QEA	324. QA	219. *
	88.	99.	105.	88.	99.	105.	88.	99.	88.	99.
	347.	385.	347.	347.	385.	347.	347.	385.	347.	385.
	0.08860	0.08860	0.08860	0.08860	0.08860	0.08860	0.08860	0.08860	0.08860	0.08860
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.178	0.178	0.178	0.178	0.178	0.178	0.178	0.178	0.178	0.178
	5	5	5	5	5	5	5	5	5	5
	A46	A46	A46	A46	A46	A46	A46	A46	A46	A46
	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03

CONFLUENCE Q'S

LOCATION	1	11A	TA 1155 QA	243. QAE	347. QE	103. 347. QA	11E TE 1153 QE	105. QEA	324. QA	219. *
	88.	99.	105.	88.	99.	105.	88.	99.	88.	99.
	347.	385.	347.	347.	385.	347.	347.	385.	347.	385.
	0.08860	0.08860	0.08860	0.08860	0.08860	0.08860	0.08860	0.08860	0.08860	0.08860
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.178	0.178	0.178	0.178	0.178	0.178	0.178	0.178	0.178	0.178
	5	5	5	5	5	5	5	5	5	5
	A46	A46	A46	A46	A46	A46	A46	A46	A46	A46
	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03

File CAN_82.dat

4LADEPTH.RDT
5 1 1A CANYON HILLS - 50 YEAR CLEAR (NEW METHODOLOGY) MRU
10/15/02
5 1 12A FLOOD HYDROGRAPH
6 1 1A 68 0120.4 6A46 G1
6 1 2B 68 01 6.2 5A46
6 1 3AB 68 A461 570 12400 1
6 1 4A 68 01 9.6 5A46
6 1 5C 68 0112.5 5A46
6 1 6AC 68 A461 590 12800 1
6 1 7A 68 01 3.9 5A46
6 1 8D 68 01 8.3 5A46
6 1 9AD 68 A461 160 16000 1
6 1 10E 68 0127.9 8A46
6 1 11AE 68 A461 350 08860 1
6 1 12A 68 0311.4 5A46 2 2

580 CAN - BB, DOT (BURNED)

41ADEPTH	RDT	1A CANYON HILLS - 50 YEAR BURNED (NEW METHODOLOGY)	MRU 10/17/02
5	1	1A FLOOD HYDROGRAPH	G1
5	1	1A 178 0320.4 6A46	
6	1	2B 178 03 6.2 5A46	
6	1	3AB 68 A461	1
6	1	4A 178 03 9.6 5A46	
6	1	5C 178 0312.5 5A46	
6	1	6AC178 A461	1
6	1	7A 178 03 3.9 5A46	
6	1	8D 178 03 8.3 5A46	
6	1	9AD178 A461	1
6	1	10E 178 0327.9 8A46	
6	1	11AE178 A461	1
6	1	12A 178 0311.4 5A46	2 2

7.5 AREA B TC NORTH OF 210 RWY

Project	Subarea	Area (acres/imp)	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isoshyet (in. Tc)	Calculat Intensity (inCu)	Cd	Flowrate (cTc Equation)		
Figure 1	1A	20.4	0.03	50	68	1320	0.25	9.2	6	4.93	0.78	$Tc=(10)^{-0.507*(x)^{-0.519*(L)^{0.483*(S)^{-0.1}}$
Figure 1	2B	6.2	0.03	50	68	730	0.39	9.2	4	5.49	0.79	$Tc=(10)^{-0.507*(x)^{-0.519*(L)^{0.483*(S)^{-0.1}}$
Figure 1	4A	9.6	0.03	50	68	800	0.49	9.2	4	5.49	0.79	$Tc=(10)^{-0.507*(x)^{-0.519*(L)^{0.483*(S)^{-0.1}}$
Figure 1	5C	12.5	0.03	50	68	1030	0.33	9.2	5	5.44	0.79	$Tc=(10)^{-0.507*(x)^{-0.519*(L)^{0.483*(S)^{-0.1}}$
Figure 1	7A	3.9	0.03	50	68	420	0.5	9.2	3	5.49	0.79	$Tc=(10)^{-0.507*(x)^{-0.519*(L)^{0.483*(S)^{-0.1}}$
Figure 1	8D	8.3	0.03	50	68	370	0.29	9.2	5	5.49	0.75	$Tc=(10)^{-0.507*(x)^{-0.519*(L)^{0.483*(S)^{-0.1}}$
Figure 1	10E	27.9	0.03	50	68	1875	0.19	9.2	8	4.34	0.79	$Tc=(10)^{-0.507*(x)^{-0.519*(L)^{0.483*(S)^{-0.1}}$
Figure 1	12A	11.4	0.03	50	68	500	0.41	9.2	3	5.49	0.79	$Tc=(10)^{-0.507*(x)^{-0.519*(L)^{0.483*(S)^{-0.1}}$

NORTH AREA "C" UNDER DRAINAGE AREA

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Can_cc.hyc

10-17-2002 SITE LICENSEE: THE KEITH COMPANIES, INC
 LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
 MODIFIED RATIONAL METHOD HYDROLOGY

CANYON HILLS - 50 YEAR CLEAR (NEW METHODOLOGY) MRU 10/17/02

LOCATION	AREA	Q	TOTAL AREA	TOTAL Q	CONV TYPE	CONV LENGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL SOIL NAME	TC	RAIN PCT	ZONE IMPV
1A	26.	102.	26.	102.	1	20.	0.14500	0.00	0.00	68	6	A46	0.03
2A	2.	9.	28.	110.	2	10.	0.12800	0.00	0.00	68	5	A46	0.11

NORTH AREA "C" INDEX, DRAINAGE AREA

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10-17-2002 SITE LICENSEE: THE KEITH COMPANIES, INC
LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
MODIFIED RATIONAL METHOD HYDROLOGY

Can_cb.hyc

LOCATION	CANYON HILLS - 50 YEAR BURNED (NEW METHODOLOGY) MRU 10/17/02		TOTAL CONV		CONV SLOPE	CONV SIZE	CONV Z	CONTROL SOIL Q	CONTROL SOIL NAME	TC	RAIN PCT	ZONE IMPV
	AREA	Q	TYPE	LNTH								
1 1A	26.	114.	1	20.	0.14500	0.00	0.00	0.	178	6	A46	0.06
1 2A	2.	10.	2	10.	0.12800	0.00	0.00	0.	178	5	A46	0.11
		28.										
		123.										

4LADEPTH.RDT 1A CANYON HILLS - 50 YEAR CLEAR (NEW METHODOLOGY) MRU 10/17/02

5	1	1A			
5	1	2A	FLOOD HYDROGRAPH		61
6	1	1A	68 0325.9 6A461	20 14500	
6	1	2A	68 11 2.2 5A462	10 12800	2 2

tree base c.b. dot 10/17/02

41ADEPTH.RDT
5 1 1A CANYON HILLS - 50 YEAR BURNED (NEW METHODOLOGY) MRU 10/17/02
5 1 2A FLOOD HYDROGRAPH
6 1 1A 178 0625.9 6A461 20 14500 G1
6 1 2A 178 11 2.2 5A462 10 12800 2 2

Case 2 North of 210 Hwy

Project	Subarea	Area (acres/imp)	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isobyt (in. Tc-calculat)	Intensity (inCu)	Cd	Flowrate (cTc Equation)
Figure 1	1A	25.9	50	68	1340	0.1985	9.2	6	0.77	$96.12526 Tc=(10)^{-0.507}(X)^{-0.519}(L)^{0.483}(S)^{-0.1}$
Figure 1	2A	2.2	50	68	40	0.23	9.2	1	0.79	$9.54162 Tc=(10)^{-0.507}(X)^{-0.519}(L)^{0.483}(S)^{-0.1}$

**NORTH SIDE AREAS
HYDROLOGY CALCULATIONS FOR
DEVELOPED AND UNDEVELOPED/
BURNED CONDITIONS**

**NORTH AREA "A"
NORTH AREA "B"
NORTH AREA "C"
NORTH AREA "B-4"**

NORTH ANGELES "A" DEV. SITE

Can_ngoa.hyc

11-11-2002 SITE LICENSEE: THE KEITH COMPANIES, INC LOS ANGELES COUNTY FLOOD CONTROL DISTRICT MODIFIED RATIONAL METHOD HYDROLOGY PAGE 1
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Canyon hills - 50 YEAR DEVELOPED SITE (new method) MRU 11/11/02

LOCATION	SUBAREA	AREA	Q	TOTAL	CONV	LNTH	SLOPE	CONV	SIZE	CONV	Q	CONTROL	SOIL	TC	RAIN	PCT	
				Q	TYPE					Z			NAME		ZONE	IMPV	
1	1A	3.	15.	15.	4	430.	0.15580	0.00	2.00	0.00	0.	68	5	A46	0.42		
1	2A	0.	0.	0.	2	230.	0.15000	0.00	0.00	0.00	0.	68	99	A46	0.00		
1	3A	4.	17.	30.	4	530.	0.07920	0.00	2.00	0.00	0.	68	5	A46	0.01		
1	4A	6.	29.	56.	4	100.	0.03000	0.00	2.25	0.00	0.	68	5	A46	0.42		
1	5A	11.	41.	97.	4	450.	0.10000	0.00	2.25	0.00	0.	68	8	A46	0.42		
1	6A	10.	46.	136.	0	0.	0.00000	0.00	0.00	0.00	0.	68	5	A46	0.19		
1	7A	8.	31.	167.	0	0.	0.00000	0.00	0.00	0.00	0.	68	7	A46	0.27		
1	8A	0.	0.	167.	4	460.	0.10000	0.00	2.75	0.00	0.	68	99	A46	0.00		
1	9A	6.	29.	48.	4	320.	0.01560	0.00	4.00	0.00	0.	68	5	A46	0.42		
1	10A	5.	24.	208.	4	510.	0.03920	0.00	3.50	0.00	0.	68	5	A46	0.42		
1	11B	10.	34.	80.	0	0.	0.08000	0.00	2.00	0.00	0.	68	10	A46	0.42		
1	12B	10.	48.	20.	0	0.	0.00000	0.00	0.00	0.00	0.	68	5	A46	0.42		
1	13B	0.	0.	80.	4	700.	0.10000	0.00	2.25	0.00	0.	68	99	A46	0.00		
1	14B	13.	55.	132.	0	0.	0.00000	0.00	0.00	0.00	0.	68	6	A46	0.31		
***** CONFLUENCE Q'S *****																	
1	15A	TA 1155 QA	206. QAB	327. QB	121.	15B TB 1154 QB	132. QBA	331. QA	198. QB	132.							198.
***** CONFLUENCE Q'S *****																	
1	15B	TAB 1154 QAB	331. QA	198. QB	132.											388.	
***** CONFLUENCE Q'S *****																	
1	24A	TA 1155 QA	402. QAB	860. QB	458. QAB	24B TB 1156 QB	459. QBA	847. QA	402. QB	458.							388.
***** CONFLUENCE Q'S *****																	
1	24B	TAB 1155 QAB	860. QA	458. QB	459.											388.	
***** CONFLUENCE Q'S *****																	
1	24AB	AREA	459. Q	860. Q	4	100.	0.05000	0.00	8.00	0.00	0.	178	0	A46	0.00		
1	25A	0.	0.	858.	6	200.	0.00937	0.00	3.00	0.00	0.	68	5	A46	0.32		
1	26C	18.	85.	921.	6	450.	0.08000	0.00	3.00	0.00	0.	68	0	A46	0.00		
1	27AC	18.	80.	963.	4	840.	0.00889	0.00	8.00	0.00	0.	68	5	A46	0.16		
1	28A	19.	86.	963.	4	20.	0.05000	0.00	2.00	0.00	0.	68	5	A46	0.42		
1	29D	9.	44.	44.	4	610.	0.25000	0.00	2.00	0.00	0.	68	6	A46	0.42		
1	30D	2.	9.	11.	2	480.	0.12000	0.00	2.50	0.00	0.	68	5	A46	0.01		
1	31D	11.	48.	92.	4	410.	0.06000	0.00	2.50	0.00	0.	68	5	A46	0.42		
1	32D	6.	29.	116.	4	10.	0.06000	0.00	2.75	0.00	0.	68	5	A46	0.42		

11-11-2002 SITE LICENSEE: THE KEITH COMPANIES, INC LOS ANGELES COUNTY FLOOD CONTROL DISTRICT MODIFIED RATIONAL METHOD HYDROLOGY PAGE 2
 PROG F0601A

Canyon hills - 50 YEAR DEVELOPED SITE (new method) MRU 11/11/02

STORM DAY 4

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Can_ncoa.hyc
*****
LOCATION  SUBAREA  SUBAREA  TOTAL  TOTAL  CONV  CONV  CONTROL  RAIN  PCT
          AREA    Q        Q        AREA    SIZE  Z      NAME   ZONE  IMPV
1 33D    10.    45.    38.    3.00  0.00  0.    68    5    A46  0.14
1 34D    0.     0.    38.    2.25  0.00  0.    68    99   A46  0.00
1 35D    0.     0.    38.    0.30000  0.00  0.    68    99   A46  0.00
*****
1 36A  TA 1156 QA  963. QAD  1084. QD  1 36D  TD 1154 QD  157. QDA  1052. QA  895.
*****
CONFLUENCE Q'S
*****
LOCATION  SUBAREA  SUBAREA  TOTAL  TOTAL  CONV  CONV  CONTROL  RAIN  PCT
          AREA    Q        Q        AREA    SIZE  Z      NAME   ZONE  IMPV
1 36AD  10.    45.    38.    3.00  0.00  0.    68    5    A46  0.14
1 37A  0.     0.    38.    2.25  0.00  0.    68    99   A46  0.00
1 37D  0.     0.    38.    0.30000  0.00  0.    68    99   A46  0.00
*****
1 36A  TA 1156 QA  963. QAD  1084. QD  1 36D  TD 1154 QD  157. QDA  1052. QA  895.
*****
CONFLUENCE Q'S
*****
LOCATION  SUBAREA  SUBAREA  TOTAL  TOTAL  CONV  CONV  CONTROL  RAIN  PCT
          AREA    Q        Q        AREA    SIZE  Z      NAME   ZONE  IMPV
1 36AD  10.    45.    38.    3.00  0.00  0.    68    5    A46  0.14
1 37A  0.     0.    38.    2.25  0.00  0.    68    99   A46  0.00
1 37D  0.     0.    38.    0.30000  0.00  0.    68    99   A46  0.00
*****

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MORA FIVE : CAN-NGOA, OUT

ALADEPTH.RDT	1A Canyon hills - 50 YEAR DEVELOPED SITE (new method)MRU 11/11/02	G1
5	1A flood hydrograph	
5	1A 68 42 3.2 5A464	430 15580
6	2A 68 99A462	230 15000
6	3A 68 01 4.3 5A464	530 07920
6	4A 68 42 6.0 5A464	100 03000
6	5A 68 4210.8 8A464	450 10000
6	6A 68 1910.5 5A46	
6	7A 68 27 8.1 7A46	
6	8A 68 99A464	460 10000
6	9A 68 42 6.3 5A464	320 01560
6	10A 68 42 4.8 5A464	510 03920
6	11B 68 42 9.810A464	300 08000
6	12B 68 42 9.6 5A46	
6	13B 68 99A464	700 10000
6	14B 68 3113.4 6A46	
6	15AB 68 A464	550 10000
6	16A 68 29 8.6 5A464	660 10000
6	17A 68 25 4.3 5A464	200 13600
6	18A 178 01 9.4 5A46	
6	19B 178 1052.9 9A461	240 05000
6	20B 178 03 1.5 5A461	650 05000
6	21B 178 03 4.0 5A46	
6	22B 178 1378.012A46	
6	23B 178 03 8.5 5A46	
6	24AB178 A464	100 05000 800
6	25A 178 99A466	200 05000 67 8.00
6	26C 68 3217.9 5A464	450 08000 300
6	27AC 68 A466	840 05000 67 8.00
6	28A 68 1619.5 5A464	20 05000
6	29D 68 42 8.6 5A464	610 25000
6	30D 68 42 2.2 6A462	480 12000
6	31D 68 0111.0 5A464	410 06000
6	32D 68 42 6.3 5A464	10 06000
6	33D 68 1410.3 5A464	10 06000
6	34D 68 99A464	300 30000
6	35D 68 99A46	
6	36AD 68 A464	20 05000 800
6	37A 68 99A464	20 05000 800

Q 70 increase = 1096 - 1042 = 54 cfs.
 EA = 327

EA = 327

Σ A = 327 ACRES. //
 Σ A NAT = 318 ACRES //

QUANTITY TAKEN = 9 ACRES.

MORA FIG CAN - NUGOA VAT.

Can_nu-1.hyc

SITE LICENSEE: THE KEITH COMPANIES, INC
LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
MODIFIED RATIONAL METHOD HYDROLOGY

Canyon hills - 50 YEAR UNDEVELOPED SITE (new method) MRU 11/11/02

LOCATION	SUBAREA	AREA	Q	TOTAL	CONV	LNCH	SLOPE	CONV	SIZE	CONV	CONV	CONTROL	SOIL	TC	RAIN	PCT
				Q	TYPE	CONV				Z	Q	NAME		ZONE	IMPV	
1	1A	3.	13.	13.	4	430.	0.15580	2.00	0.00	0.00	0.	68	5	A46	0.01	
1	2A	0.	12.	12.	2	230.	0.15000	0.00	0.00	0.00	0.	68	99	A46	0.00	
1	3A	4.	17.	29.	4	530.	0.07920	2.00	0.00	0.00	0.	68	5	A46	0.01	
1	4A	6.	26.	52.	4	100.	0.03000	2.25	0.00	0.00	0.	68	8	A46	0.01	
1	5A	11.	36.	88.	4	450.	0.10000	0.00	0.00	0.00	0.	68	5	A46	0.01	
1	6A	10.	44.	125.	0	0.	0.00000	0.00	0.00	0.00	0.	68	7	A46	0.01	
1	7A	8.	28.	154.	0	0.	0.00000	0.00	0.00	0.00	0.	68	99	A46	0.00	
1	8A	0.	0.	154.	4	460.	0.10000	2.75	0.00	0.00	0.	68	5	A46	0.01	
1	9A	6.	26.	177.	4	320.	0.01560	4.00	0.00	0.00	0.	68	5	A46	0.01	
1	10A	5.	22.	192.	4	510.	0.03920	3.50	0.00	0.00	0.	68	10	A46	0.01	
1	11B	10.	29.	29.	4	300.	0.08000	2.00	0.00	0.00	0.	68	5	A46	0.01	
1	12B	10.	44.	71.	0	0.	0.00000	0.00	0.00	0.00	0.	68	99	A46	0.00	
1	13B	0.	0.	71.	4	700.	0.10000	2.00	0.00	0.00	0.	68	6	A46	0.01	
1	14B	13.	51.	119.	0	0.	0.00000	0.00	0.00	0.00	0.	68	6	A46	0.01	

CONFLUENCE Q'S

LOCATION	SUBAREA	AREA	Q	TOTAL	CONV	LNCH	SLOPE	CONV	SIZE	CONV	CONV	CONTROL	SOIL	TC	RAIN	PCT
				Q	TYPE	CONV				Z	Q	NAME		ZONE	IMPV	
1	15A	TA 1155 QA	189. QAB	298. QB	109. QA	15B	TB 1154 QB	119. QBA	303. QA	183. QB	119. QBA	303. QA	183. QB	119. QBA	303. QA	183. QB
1	15AB	TAB 1154 QAB	86.	303.	4	550.	0.10000	3.50	0.00	0.00	0.	68	0	A46	0.00	
1	16A	9.	39.	327.	4	660.	0.10000	3.50	0.00	0.00	0.	68	5	A46	0.01	
1	17A	4.	17.	339.	4	200.	0.13600	3.50	0.00	0.00	0.	68	5	A46	0.01	
1	18A	9.	44.	369.	0	0.	0.00000	0.00	0.00	0.00	0.	178	5	A46	0.01	
1	19B	53.	190.	190.	1	240.	0.05000	0.00	0.00	0.00	0.	178	9	A46	0.10	
1	20B	1.	5.	193.	1	650.	0.05000	0.00	0.00	0.00	0.	178	5	A46	0.03	
1	21B	4.	19.	197.	0	0.	0.00000	0.00	0.00	0.00	0.	178	12	A46	0.13	
1	22B	78.	242.	136.	0	0.	0.00000	0.00	0.00	0.00	0.	178	5	A46	0.03	
1	23B	8.	39.	144.	0	0.	0.00000	0.00	0.00	0.00	0.	178	5	A46	0.03	

CONFLUENCE Q'S

LOCATION	SUBAREA	AREA	Q	TOTAL	CONV	LNCH	SLOPE	CONV	SIZE	CONV	CONV	CONTROL	SOIL	TC	RAIN	PCT
				Q	TYPE	CONV				Z	Q	NAME		ZONE	IMPV	
1	24A	TA 1155 QA	369. QAB	827. QB	458. QA	24B	TB 1156 QB	459. QBA	814. QA	355. QB	459. QBA	814. QA	355. QB	459. QBA	814. QA	355. QB
1	24AB	TAB 1155 QAB	86.	827.	4	100.	0.05000	8.00	0.00	0.00	0.	178	0	A46	0.00	
1	25A	0.	0.	825.	6	200.	0.00965	8.00	0.67	0.00	0.	178	99	A46	0.00	
1	26C	18.	79.	79.	4	450.	0.08000	3.00	0.00	0.00	0.	68	5	A46	0.01	
1	27AC	18.	74.	882.	6	840.	0.00918	8.00	0.67	0.00	0.	68	0	A46	0.00	
1	28A	19.	83.	920.	4	20.	0.05000	8.00	0.00	0.00	0.	68	5	A46	0.01	
1	29D	9.	39.	9.	4	610.	0.25000	2.00	0.00	0.00	0.	68	5	A46	0.01	
1	30D	2.	8.	45.	2	480.	0.12000	2.00	0.00	0.00	0.	68	6	A46	0.01	
1	31D	11.	48.	87.	4	410.	0.06000	2.50	0.00	0.00	0.	68	5	A46	0.01	
1	32D	6.	26.	109.	4	10.	0.06000	2.75	0.00	0.00	0.	68	5	A46	0.01	

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*****
LOCATION  SUBAREA  SUBAREA  TOTAL  TOTAL  CONN  CONN  CONN  CONN  CONTROL  RAIN  PCT
          AREA    Q          Q          Q          Q          Q          Q          Q          Q          ZONE  IMPV
1 33D    10.      0.      44.      38.      151.    4      10.    0.06000  3.00  0.00  0.  68  5.  A46  0.01
1 34D    0.      0.      0.      38.      150.    4      300.  0.30000  2.25  0.00  0.  68  99  A46  0.00
1 35D    0.      0.      0.      38.      148.    0      0.    0.00000  0.00  0.00  0.  68  99  A46  0.00
*****
CONFLUENCE Q'S
1 36A  TA 1156 QA  920. QAD 1033. QD 113. 36D TD 1154 QD 148. QDA 1001. QA 853.
1 36B  TAD 1155 QAD 1043. QA 909. QD 134.
*****
LOCATION  SUBAREA  SUBAREA  TOTAL  TOTAL  CONN  CONN  CONN  CONN  CONTROL  RAIN  PCT
          AREA    Q          Q          Q          Q          Q          Q          Q          Q          ZONE  IMPV
1 36AD  38.      0.      148.    327.  1043.  4      20.    0.05000  8.00  0.00  0.  68  0.  A46  0.00
1 37A  0.      0.      0.      327.  1042.  4      20.    0.05000  8.00  0.00  0.  68  99  A46  0.00
*****

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MORA file : BAN-NUGOA.DAT

4LDEPTH.RDT 1A Canyon hills - 50 YEAR UNDEVELOPED SITE (new method)MRU 11/11/02

4LDEPTH	RDT	1A	Canyon hills - 50 YEAR UNDEVELOPED SITE (new method)MRU 11/11/02	YEAR UNDEVELOPED SITE (new method)MRU 11/11/02	1	13	13	20
5	1	1A	Canyon hills - 50 YEAR UNDEVELOPED SITE (new method)MRU 11/11/02	430 15580				
5	1	37A	flood hydrograph	230 15000				
6	1	1A	68 01 3.2 5A464	530 07920				
6	1	2A	68 99A462	100 03000				
6	1	3A	68 01 4.3 5A464	450 10000				
6	1	4A	68 01 6.0 5A464					
6	1	5A	68 0110.8 8A464					
6	1	6A	68 0110.5 5A46					
6	1	7A	68 01 8.1 7A46					
6	1	8A	68 99A464	460 10000				
6	1	9A	68 01 6.3 5A464	320 01560				
6	1	10A	68 01 4.8 5A464	510 03920				
6	1	11B	68 01 9.810A464	300 08000				
6	1	12B	68 01 9.6 5A46					
6	1	13B	68 99A464	700 10000				
6	1	14B	68 0113.4 6A46					
6	1	15AB	68 A464	550 10000				
6	1	16A	68 01 8.6 5A464	660 10000				
6	1	17A	68 01 4.3 5A464	200 13600				
6	1	18A	178 01 9.4 5A46					
6	1	19B	178 1052.9 9A461	240 05000				
6	1	20B	178 03 1.5 5A461	650 05000				
6	1	21B	178 03 4.0 5A46					
6	1	22B	178 1378.012A46					
6	1	23B	178 03 8.5 5A46					
6	1	24AB	178 A464	100 05000				
6	1	25A	178 99A466	200 05000	67	8.00		
6	1	26C	68 0117.9 5A464	450 08000				
6	1	27AC	68 A466	840 05000	67	8.00		
6	1	28A	68 0119.5 5A464	20 05000				
6	1	29D	68 01 8.6 5A464	610 25000				
6	1	30D	68 01 2.2 6A462	480 12000				
6	1	31D	68 0111.0 5A464	410 06000				
6	1	32D	68 01 6.3 5A464	10 06000				
6	1	33D	68 0110.3 5A464	10 06000				
6	1	34D	68 99A464	300 30000				
6	1	35D	68 99A46					
6	1	36AD	68 A464	20 05000				
6	1	37A	68 99A464	20 05000				

G1

1

800

1

13 13 20

13 13 20

1

800

1

2

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2

NORTH AREA "B" DEY SITE

Can_nald.hyc

PAGE 1
PROG FO601A

SITE LICENSEE: THE KEITH COMPANIES, INC
LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
MODIFIED RATIONAL METHOD HYDROLOGY

CANYON HILLS - 50 YEAR DEVELOPED SITE (NEW METHODOLOGY) MRU 10/3

LOCATION	SUBAREA	AREA	Q	TOTAL AREA	TOTAL Q	CONV TYPE	CONV LENGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN ZONE	PCT IMEV	STORM DAY
1	1A	7.	28.	7.	28.	4	300.	0.15000	2.00	0.00	0.	68	7	A46	0.42	4
1	2A	1.	5.	8.	32.	4	430.	0.28000	2.00	0.00	0.	68	5	A46	0.42	4
1	3A	2.	10.	10.	41.	4	10.	0.05000	2.00	0.00	0.	68	5	A46	0.42	4

INCREASE Q DUE TO DEV.

$\Delta Q_{DEV} = 41 - 36 = 5 \text{ CFS TO BE DESIGNER}$

North Area 'B'

4LADEPTH.RDT
5 1 1A CANYON HILLS - 50 YEAR DEVELOPED SITE (NEW METHODOLOGY) MRU 10/31/02
5 1 3A FLOOD HYDROGRAPH
6 1 1A 68 42 7.4 7A464 300 15000 G1
6 1 2A 68 42 .8 5A464 430 28000
6 1 3A 68 42 2 5A464 10 05000 2 2

NORTH AREA "B"

Can_na-1.hyc

PAGE 1
PROG F0601A

10-31-2002 SITE LICENSEE: THE KEITH COMPANIES, INC
 LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
 MODIFIED RATIONAL METHOD HYDROLOGY

LOCATION	SUBAREA		Q	TOTAL		Q	TYPE	CONV LENGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL SOIL Q	SOIL NAME	TC	STORM DAY 4	
	AREA	AREA		AREA	AREA										RAIN	PCT
1	7.	25.	7.	25.	4	300.	0.15000	2.00	0.00	0.	68	7	A46	0.01		
1	1.	4.	8.	29.	4	430.	0.28000	2.00	0.00	0.	68	5	A46	0.01		
1	2.	9.	10.	36.	4	10.	0.05000	2.00	0.00	0.	68	5	A46	0.01		

NORTH AREA 'B'

4LADEPTH, RDT
5 1 1A CANYON HILLS - 50 YEAR UNDEVELOPED SITE (NEW METHODOLOGY) MRU 10/31/02
5 1 3A FLOOD HYDROGRAPH
6 1 1A 68 01 7.4 7A464 300 15000 G1
6 1 2A 68 01 .8 5A464 430 28000
6 1 3A 68 01 2 5A464 10 05000 2 2

NORTH AREA "C" DEV. SITE

11-11-2002

SITE LICENSEE: THE KEITH COMPANIES, INC

Can_ncd.hyc

PAGE 1
PROG F0601A

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
MODIFIED RATIONAL METHOD HYDROLOGY

CANYON HILLS - 50 YEAR DEVELOPED SITE (NEW METHODOLOGY) MRU 11/1

LOCATION	AREA	Q	AREA	TOTAL	Q	TOTAL	Q	TYPE	CONV	CONV	SLOPE	CONV	SIZE	CONV	Z	CONV	Q	CONTROL	SOIL	NAME	TC	RAIN	PCT	STORM DAY
1 1A	13.	45.	13.	45.	4	45.	880.	4	0.10000	2.00	0.10000	2.00	0.00	0.	68	9	0.	68	9	A46	0.38	A46	0.38	4
1 2A	15.	64.	28.	108.	4	108.	300.	4	0.35000	2.00	0.35000	2.00	0.00	0.	68	6	0.	68	6	A46	0.35	A46	0.35	4
1 3A	2.	10.	30.	116.	4	116.	20.	4	0.05000	2.75	0.05000	2.75	0.00	0.	68	5	0.	68	5	A46	0.42	A46	0.42	4
1 4A	0.	0.	30.	116.	4	116.	10.	4	0.05000	2.75	0.05000	2.75	0.00	0.	68	99	0.	68	99	A46	0.00	A46	0.00	4

MAPS: FILE: CANUCD.PAT.

4LADEPTH.RDT	1A	CANYON HILLS - 50 YEAR DEVELOPED SITE (NEW METHODOLOGY) MRU 11/11/02	
5	1	4A FLOOD HYDROGRAPH	G1
5	1	1A 68 3813.0 9A464	880 10000
6	1	2A 68 3515.0 6A464	300 35000
6	1	3A 68 42 2.0 5A464	20 05000
6	1	4A 68 99A464	10 05000

Q50 MAPS = 116 - 105 = 11 CFS TO BE DETAINED @ UPSTREAM
DETENTION BASIN.

11-11-2002

SITE LICENSEE: THE KEITH COMPANIES, INC

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT

MODIFIED RATIONAL METHOD HYDROLOGY

CANYON HILLS - 50 YEAR UNDEVELOPED SITE (NEW METHODOLOGY) MRU 11

LOCATION	AREA	Q	SUBAREA	TOTAL AREA	TOTAL Q
1	1A	40.	40.	13.	40.
1	2A	15.	58.	28.	98.
1	3A	2.	9.	30.	105.
1	4A	0.	0.	30.	105.

CONV SIZE	CONV SLOPE	CONV LENGTH	CONV TYPE	CONV Q	TOTAL Q
2.00	0.10000	880.	4	880.	40.
2.00	0.35000	300.	4	300.	98.
2.75	0.05000	20.	4	20.	105.
2.75	0.05000	10.	4	10.	105.

CONV Z	CONV Q	CONV SOIL NAME	TC
0.00	0.	68	9
0.00	0.	68	6
0.00	0.	68	5
0.00	0.	68	99

RAIN ZONE	RAIN PCT	IMPV
A46	0.01	0.01
A46	0.01	0.01
A46	0.01	0.01
A46	0.01	0.01

PAGE 1
PROG FO601A

Can_ncud.hyc

4LADEPTH.RDT

5 1 1A CANYON HILLS - 50 YEAR UNDEVELOPED SITE (NEW METHODOLOGY) MRU 11/11/02

5 1 4A FLOOD HYDROGRAPH

6 1 1A 68 0113.0 9A464 880 10000 G1

6 1 2A 68 0115.0 6A464 300 35000

6 1 3A 68 01 2.0 5A464 20 05000

6 1 4A 68 99A464 10 05000 2 2

1- 7-2003

SITE LICENSEE: THE KEITH COMPANIES, INC

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
MODIFIED RATIONAL METHOD HYDROLOGY

CANYON HILLS - 50 YEAR UNDEVELOPED/BURNED SITE (NEW METHODOLO

LOCATION	SUBAREA	AREA	Q	SUBAREA	AREA	TOTAL	Q	TOTAL	CONV	TYPE	CONV	LNTH	SLOPE	CONV	SIZE	CONV	Z	CONTROL	SOIL	TC	ZONE	IMPV	RAIN	PCT
1	1A	13.	46.	13.	46.	46.	4	880.	0.10000	4	880.	880.	0.10000	4	2.00	0.00	0.00	0.	178	9	A46	0.03	A46	0.03
1	2A	15.	66.	28.	110.	110.	4	300.	0.35000	4	300.	300.	0.35000	4	2.00	0.00	0.00	0.	178	6	A46	0.03	A46	0.03
1	3A	2.	10.	30.	119.	119.	4	20.	0.05000	4	20.	20.	0.05000	4	2.75	0.00	0.00	0.	178	5	A46	0.03	A46	0.03
1	4A	0.	0.	30.	119.	119.	4	10.	0.05000	4	10.	10.	0.05000	4	2.75	0.00	0.00	0.	178	99	A46	0.00	A46	0.00

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4LADEPTH.RDT
5 1 1A CANYON HILLS - 50 YEAR UNDEVELOPED/BURNED SITE (NEW METHODOLO
6 1 4A FLOOD HYDROGRAPH
6 1 1A 178 0313.0 9A464 880 10000 G1
6 1 2A 178 0315.0 6A464 300 35000
6 1 3A 178 03 2.0 5A464 20 05000
6 1 4A 178 99A464 10 05000 2 2

NORTH AREA "B4" UNDEV. DRAINAGE AREA

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LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
MODIFIED RATIONAL METHOD HYDROLOGY

LOCATION	SUBAREA		TOTAL		CONV		CONV		CONV		CONTROL		SOIL		TC
	AREA	Q	AREA	Q	TYPE	LENGTH	SLOPE	SIZE	Z	Q	NAME				
1 1A	5.	22.	5.	22.	2	250.	0.10000	0.00	0.00	0.	68	5	A46	0.06	
1 2A	5.	22.	10.	43.	2	100.	0.05000	0.00	0.00	0.	68	5	A46	0.11	
1 3A	4.	18.	14.	59.	2	10.	0.05000	0.00	0.00	0.	68	5	A46	0.11	

STORM DAY 4
RAIN PCT
ZONE IMPV
A46 0.06
A46 0.11
A46 0.11

9250 6-4 (CERN)

4LADEPTH.RDT 1A CANYON HILLS - 50 YEAR CLEAR (NEW METHODOLOGY) MRU 10/15/02

5	1	1A	68 06	4.7	5A462	250	10000		
5	1	3A	FLOOD HYDROGRAPH						
6	1	1A	68 11	4.7	5A462	100	05000		
6	1	2A	68 11	4.7	5A462	100	05000	2	2
6	1	3A	68 11	3.8	5A462	10	05000		

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LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
MODIFIED RATIONAL METHOD HYDROLOGY

LOCATION	1A	2A	3A	AREA	Q	24.	25.	20.	TOTAL AREA	TOTAL Q	CONV TYPE	CONV LENGTH	CONV SLOPE	CONV SIZE	CONV Z	CONV Q	CONV NAME	TC	RAIN PCT	ZONE	IMPV	STORM DAY 4
1	1A	5.	5.	24.	24.	2	250.	0.10000	0.00	0.00	2	100.	0.05000	0.00	0.00	0.	178	5	A46	0.06		
1	2A	5.	10.	47.	47.	2	100.	0.05000	0.00	0.00	2	10.	0.05000	0.00	0.00	0.	178	5	A46	0.11		
1	3A	4.	14.	65.	65.	2	10.	0.05000	0.00	0.00	2	10.	0.05000	0.00	0.00	0.	178	5	A46	0.11		

Acco. 8-4 (Burned) FHE

4LADEPTH.RDT 1A CANYON HILLS - 50 YEAR BURNED (NEW METHODOLOGY) MRU 10/15/02

5	1	1A							
5	1	3A	FLOOD	HYDROGRAPH					G1
6	1	1A	178	06	4.7	5A462	250	10000	
6	1	2A	178	11	4.7	5A462	100	05000	
6	1	3A	178	11	3.8	5A462	10	05000	2 2

DATA B.A. 6-1-1970 T.C. NORTH 210 HWY

Project	Subarea	Area (acres/imp)	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isolyet (in. Tc-calculat)	Intensity (inCu)	Cd	Flowrate (cTc Equation)
Figure 1	1A	4.7	50	68	500	0.304	9.2	3	0.79	$20.38437 Tc(10)^{-0.507(x)^{-0.519}(L)^{0.483}(S)^{-0.1}}$
Figure 1	2A	4.7	50	68	550	0.2309	9.2	4	0.79	$20.38437 Tc(10)^{-0.507(x)^{-0.519}(L)^{0.483}(S)^{-0.1}}$
Figure 1	3A	3.8	50	68	100	0.05	9.2	2	0.79	$16.48098 Tc(10)^{-0.507(x)^{-0.519}(L)^{0.483}(S)^{-0.1}}$

**SOUTH SIDE AREAS
HYDROLOGY CALCULATIONS FOR
UNDEVELOPED CLEAR AND
BURN CONDITIONS**

SOUTH AREA "SA"

SOUTH AREA "S" UNDEV. SITE

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MODIFIED RATIONAL METHOD HYDROLOGY

Canyon Hills South - 50 YEAR Clear (new methodology) MRU 10/17/02

LOCATION	SUBAREA	AREA	Q	TOTAL AREA	TOTAL Q	CONV TYPE	CONV LENGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN ZONE	IMFV	STORM DAY
1	1A	16.	62.	16.	62.	2	780.	0.04360	0.00	0.00	0.	68	6	A46	0.01	4
1	2A	17.	60.	33.	118.	2	640.	0.05630	0.00	0.00	0.	68	7	A46	0.01	4
1	3A	9.	39.	42.	138.	2	700.	0.04290	0.00	0.00	0.	68	5	A46	0.01	4
1	4A	24.	74.	66.	205.	2	510.	0.02940	0.00	0.00	0.	68	9	A46	0.01	4
1	5A	29.	85.	95.	281.	2	600.	0.05000	0.00	0.00	0.	68	10	A46	0.01	4
1	6A	13.	57.	108.	297.	2	710.	0.04930	0.00	0.00	0.	68	5	A46	0.01	4
1	7A	33.	102.	141.	385.	2	1060.	0.02830	0.00	0.00	0.	68	9	A46	0.01	4
1	8A	15.	66.	156.	388.	2	400.	0.02500	0.00	0.00	0.	68	5	A46	0.01	4
1	9A	22.	73.	178.	428.	2	50.	0.02500	0.00	0.00	0.	68	8	A46	0.01	4

4LADEPTH.RDT 1A Canyon Hills South - 50 YEAR Clear (new methodology) MRU 10/17/02

5	1	1A	flood hydrograph						
5	1	9A	0116.2	6A462	780	04360			G1
6	1	1A	0117	7A462	640	05630			
6	1	2A	019	5A462	700	04290			
6	1	3A	0124.3	9A462	510	02940			
6	1	4A	0129	10A462	600	05000			
6	1	5A	0113.2	5A462	710	04930			
6	1	6A	0132.6	9A462	1060	02830			
6	1	7A	0115.3	5A462	400	02500			
6	1	8A	0121.8	8A462	50	02500			
6	1	9A							

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10-18-2002

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LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
MODIFIED RATIONAL METHOD HYDROLOGY

Canyon Hills South - 50 YEAR BURNED (new methodology) MRU 10/17/02

LOCATION	SUBAREA	AREA	Q	TOTAL AREA	TOTAL Q	CONV TYPE	CONV LENGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN ZONE	FCT IMPV	STORM DAY
1	1A	16.	70.	16.	70.	2	780.	0.04360	0.00	0.00	0.	178	6	A46	0.03	4
1	2A	17.	68.	33.	134.	2	640.	0.05630	0.00	0.00	0.	178	7	A46	0.03	4
1	3A	9.	44.	42.	158.	2	700.	0.04290	0.00	0.00	0.	178	5	A46	0.03	4
1	4A	24.	85.	66.	236.	2	510.	0.02940	0.00	0.00	0.	178	9	A46	0.03	4
1	5A	29.	98.	95.	325.	2	600.	0.03000	0.00	0.00	0.	178	10	A46	0.03	4
1	6A	13.	63.	108.	346.	2	710.	0.04930	0.00	0.00	0.	178	5	A46	0.03	4
1	7A	33.	117.	141.	450.	2	1060.	0.02830	0.00	0.00	0.	178	9	A46	0.03	4
1	8A	15.	73.	156.	458.	2	400.	0.02500	0.00	0.00	0.	178	5	A46	0.03	4
1	9A	22.	82.	178.	510.	2	50.	0.02500	0.00	0.00	0.	178	8	A46	0.03	4

41LADEPTH.RDT 1A Canyon Hills South - 50 YEAR BURNED (new methodology) MRU 10/17/02

5	1	9A flood hydrograph		
5	1	1A 178 0316.2	6A462	780 04360
6	1	2A 178 0317	7A462	640 05630
6	1	3A 178 03 9	5A462	700 04290
6	1	4A 178 0324.3	9A462	510 02940
6	1	5A 178 0329	10A462	600 05000
6	1	6A 178 0313.2	5A462	710 04930
6	1	7A 178 0332.6	9A462	1060 02830
6	1	8A 178 0315.3	5A462	400 02500
6	1	9A 178 0321.8	8A462	50 02500

G1

2 2

T.C. CALCS. (MORA PROGRA.) - 10-30-02

Project	Subarea	Area (acres/imp)	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Ischyt (in.)	Tc-calculat	Intensity (inCu)	Cd	Flowrate (C Tc Equation)
Figure 1 1A	68	16.2	50	68	1320	0.1818	9.2	6	4.81	0.77	59.99994 Tc=(10) ^{0.507} (x) ^{0.519} (L) ^{0.483} (S) ^{0.135}
Figure 1 2A	68	17	50	68	1480	0.1851	9.2	7	4.84	0.76	59.9488 Tc=(10) ^{0.507} (x) ^{0.519} (L) ^{0.483} (S) ^{0.135}
Figure 1 4A	68	24.3	50	68	1970	0.1371	9.2	9	4.17	0.74	74.98494 Tc=(10) ^{0.507} (x) ^{0.519} (L) ^{0.483} (S) ^{0.135}
Figure 1 5A	68	29	50	68	2720	0.2796	9.2	10	3.93	0.73	83.1981 Tc=(10) ^{0.507} (x) ^{0.519} (L) ^{0.483} (S) ^{0.135}
Figure 1 6A	68	13.2	50	68	1020	0.3382	9.2	5	5.46	0.79	56.93688 Tc=(10) ^{0.507} (x) ^{0.519} (L) ^{0.483} (S) ^{0.135}
Figure 1 7A	68	32.6	50	68	1970	0.1168	9.2	9	4.1	0.74	98.9084 Tc=(10) ^{0.507} (x) ^{0.519} (L) ^{0.483} (S) ^{0.135}
Figure 1 8A	68	15.3	50	68	800	0.5	9.2	4	5.49	0.79	66.35763 Tc=(10) ^{0.507} (x) ^{0.519} (L) ^{0.483} (S) ^{0.135}
Figure 1 9A	68	21.8	50	68	1830	0.1585	9.2	8	4.3	0.76	70.305 Tc=(10) ^{0.507} (x) ^{0.519} (L) ^{0.483} (S) ^{0.135}
Figure 1 9A	68	9	50	68	540	0.444	9.2	3	5.49	0.79	39.0339 Tc=(10) ^{0.507} (x) ^{0.519} (L) ^{0.483} (S) ^{0.135}
Figure 1 G1	68	30.7	50	68	2200	0.1955	9.2	9	4.15	0.74	94.2797 Tc=(10) ^{0.507} (x) ^{0.519} (L) ^{0.483} (S) ^{0.135}
Figure 1 H1	68	9	50	68	820	0.3293	9.2	4	5.49	0.79	39.0339 Tc=(10) ^{0.507} (x) ^{0.519} (L) ^{0.483} (S) ^{0.135}
Figure 2 1B	68	9.82	50	68	1950	0.0664	9.2	10	3.92	0.73	30.79552 Tc=(10) ^{0.507} (x) ^{0.519} (L) ^{0.483} (S) ^{0.135}
Figure 2 2B	68	9.55	50	68	750	0.064	9.2	5	5.34	0.79	42.83748 Tc=(10) ^{0.507} (x) ^{0.519} (L) ^{0.483} (S) ^{0.135}
Figure 2 4L	68	9.92	50	68	1250	0.124	9.2	6	4.86	0.77	39.53318 Tc=(10) ^{0.507} (x) ^{0.519} (L) ^{0.483} (S) ^{0.135}
Figure 2 5L	68	8.33	50	68	700	0.06	9.2	5	5.42	0.79	28.81922 Tc=(10) ^{0.507} (x) ^{0.519} (L) ^{0.483} (S) ^{0.135}
Figure 2 6L	68	5.97	50	68	840	0.0781	9.2	5	5.49	0.79	27.53125 Tc=(10) ^{0.507} (x) ^{0.519} (L) ^{0.483} (S) ^{0.135}
Figure 2 1L	68	10.84	50	68	1540	0.0747	9.2	8	4.38	0.75	38.45815 Tc=(10) ^{0.507} (x) ^{0.519} (L) ^{0.483} (S) ^{0.135}
Figure 2 2L	68	4.96	50	68	1120	0.0518	9.2	5	4.65	0.76	18.91248 Tc=(10) ^{0.507} (x) ^{0.519} (L) ^{0.483} (S) ^{0.135}
Figure 3 3L	68	4.8	50	68	970	0.1082	9.2	5	5.17	0.78	27.96528 Tc=(10) ^{0.507} (x) ^{0.519} (L) ^{0.483} (S) ^{0.135}
Figure 3 1A	68	7.35	50	68	800	0.015	9.2	7	4.64	0.76	14.75712 Tc=(10) ^{0.507} (x) ^{0.519} (L) ^{0.483} (S) ^{0.135}
Figure 3 J2	68	3.2	50	68	380	0.132	9.2	4	5.49	0.79	47.49948 Tc=(10) ^{0.507} (x) ^{0.519} (L) ^{0.483} (S) ^{0.135}
Figure 3 J1	68	10.3	50	68	800	0.1625	9.2	5	5.49	0.79	14.75712 Tc=(10) ^{0.507} (x) ^{0.519} (L) ^{0.483} (S) ^{0.135}
Figure 3 1D	68	8.6	50	68	730	0.0452	9.2	5	5.22	0.79	37.70928 Tc=(10) ^{0.507} (x) ^{0.519} (L) ^{0.483} (S) ^{0.135}
Figure 3 1C	68	13.04	50	68	1680	0.0655	9.2	9	4.23	0.74	44.67895 Tc=(10) ^{0.507} (x) ^{0.519} (L) ^{0.483} (S) ^{0.135}
Figure 3 2C	68	18.2	50	68	1200	0.1542	9.2	6	4.99	0.76	75.37894 Tc=(10) ^{0.507} (x) ^{0.519} (L) ^{0.483} (S) ^{0.135}
Figure 3 2E	68	7.07	50	68	940	0.1138	9.2	5	5.24	0.79	31.11931 Tc=(10) ^{0.507} (x) ^{0.519} (L) ^{0.483} (S) ^{0.135}
Figure 3 1EN	68	11.02	50	68	900	0.2599	9.2	5	5.49	0.79	50.21483 Tc=(10) ^{0.507} (x) ^{0.519} (L) ^{0.483} (S) ^{0.135}
Figure 3 4GN	68	9.4	50	68	940	0.2889	9.2	5	5.49	0.79	40.76874 Tc=(10) ^{0.507} (x) ^{0.519} (L) ^{0.483} (S) ^{0.135}
Figure 4 20A	68	18.73	50	68	1800	0.07	9.2	9	4.15	0.74	62.1836 Tc=(10) ^{0.507} (x) ^{0.519} (L) ^{0.483} (S) ^{0.135}
Figure 4 10A	68	10.5	50	68	1500	0.0687	9.2	8	4.33	0.75	35.91735 Tc=(10) ^{0.507} (x) ^{0.519} (L) ^{0.483} (S) ^{0.135}
Figure 4 11B	68	7.71	50	68	970	0.2144	9.2	5	5.34	0.79	32.52541 Tc=(10) ^{0.507} (x) ^{0.519} (L) ^{0.483} (S) ^{0.135}
Figure 4 13C	68	6.16	50	68	620	0.3629	9.2	4	5.49	0.79	27.05472 Tc=(10) ^{0.507} (x) ^{0.519} (L) ^{0.483} (S) ^{0.135}
Figure 4 21B	68	6.43	50	68	1250	0.072	9.2	7	4.63	0.76	24.41214 Tc=(10) ^{0.507} (x) ^{0.519} (L) ^{0.483} (S) ^{0.135}
Figure 4 24C	68	9.4	50	68	680	0.1176	9.2	4	5.49	0.79	43.34804 Tc=(10) ^{0.507} (x) ^{0.519} (L) ^{0.483} (S) ^{0.135}

NOTE: 1. FOR BURNED COEF. SEE L.A. 4 LARAIN, RDT FILE
 2. FIG. 1A THRU 9A ARE TCS FOR SOUTH AREA (UNDEV.)
 3. FIG. 2, FIG. 3 & FIG. 4 ARE TCS FOR NORTH & SOUTH DEVELOPED AREAS

**SOUTH SIDE AREAS
HYDROLOGY CALCULATIONS FOR
DEVELOPED AND UNDEVELOPED/
BURNED CONDITIONS**

**SOUTH AREA "A"
SOUTH AREA "B"
SOUTH AREA "C"
SOUTH AREA "D"
SOUTH AREA "E"**

SOUTH AREA "A" DEV. SITE

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MODIFIED RATIONAL METHOD HYDROLOGY

10-30-2002

LOCATION	SUBAREA		TOTAL		CONV TYPE	CONV LENGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	STORM DAY 4	
	AREA	Q	AREA	Q									RAIN ZONE	PCT IMPV
1	1A	19.	66.	19.	4	70.	0.10000	2.00	0.00	0.	68	9	A46	0.39
1	2B	6.	24.	6.	0	0.	0.00000	0.00	0.00	0.	68	7	A46	0.42
1	3AB	6.	24.	25.	4	660.	0.10000	2.25	0.00	0.	68	0	A46	0.00
1	4A	5.	24.	30.	4	270.	0.38890	2.00	0.00	0.	68	5	A46	0.42
1	5A	1.	5.	31.	2	10.	0.05000	0.00	0.00	0.	68	5	A46	0.42

4LADDEPTH.RDT 1A CANYON HILLS - 50 YEAR DEVELOPED SITE (NEW METHODOLOGY) MRU 10/29/02

5	1	1A	5A FLOOD HYDROGRAPH	70	10000	
6	1	1A	68 3918.7 9A464			G1
6	1	2B	68 42 6.4 7A46			
6	1	3AB	68 A464	660	10000	
6	1	4A	68 42 4.7 5A464	270	38890	
6	1	5A	68 42 1.3 5A462	10	05000	2 2

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MODIFIED RATIONAL METHOD HYDROLOGY

CANYON HILLS - 50 YEAR UNDEVELOPED SITE (NEW METHODOLOGY) MRU 10

LOCATION	SUBAREA	AREA	Q	TOTAL AREA	TOTAL Q	CONV TYPE	CONV LENGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL SOIL Q	CONTROL SOIL NAME	TC	RAIN ZONE	PCT IMPV	STORM DAY
1	1A	19.	59.	19.	59.	4	70.	0.10000	2.00	0.00	0.	68	9	A46	0.01	4
1	2B	6.	21.	6.	21.	0	0.	0.00000	0.00	0.00	0.	68	7	A46	0.01	4
1	3AB	6.	21.	25.	80.	4	660.	0.10000	2.25	0.00	0.	68	0	A46	0.00	4
1	4A	5.	22.	30.	98.	4	270.	0.38890	2.00	0.00	0.	68	5	A46	0.01	4
1	5A	1.	4.	31.	102.	2	10.	0.05000	0.00	0.00	0.	68	5	A46	0.01	4

41ADEPTH.RDT

5	1	1A	CANYON HILLS - 50 YEAR UNDEVELOPED SITE (NEW METHODOLOGY) MRU 10/29/02	
5	1	5A	FLOOD HYDROGRAPH	
6	1	1A	68 0118.7 9A464	70 10000
6	1	2B	68 01 6.4 7A46	
6	1	3AB	68 A464	660 10000
6	1	4A	68 01 4.7 5A464	270 38890
6	1	5A	68 01 1.3 5A462	10 05000

G1

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1- 7-2003

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LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
MODIFIED RATIONAL METHOD HYDROLOGY

LOCATION	SUBAREA	AREA	Q	TOTAL AREA	TOTAL Q	CONV TYPE	CONV LENGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL SOIL Q	SOIL NAME	TC	RAIN ZONE	PCT IMPV	STORM DAY
1	1A	19.	67.	19.	67.	4	70.	0.10000	2.00	0.00	0.	178	9	A46	0.03	4
1	2B	6.	24.	6.	24.	0	0.	0.00000	0.00	0.00	0.	178	7	A46	0.03	
1	3AB	6.	24.	25.	91.	4	660.	0.10000	2.25	0.00	0.	178	0	A46	0.00	
1	4A	5.	24.	30.	111.	4	270.	0.38890	2.00	0.00	0.	178	5	A46	0.03	
1	5A	1.	5.	31.	115.	2	10.	0.05000	0.00	0.00	0.	178	5	A46	0.03	

4LADEPTH.RDT
5 1 1A CANYON HILLS - 50 YEAR UNDEVELOPED/BURNED SITE (NEW METHODOLOGY) MRU 10/29/02
5 1 5A FLOOD HYDROGRAPH
6 1 1A 178 0318.7 9A464 70 10000 G1
6 1 2B 178 03 6.4 7A46
6 1 3AB178 A464 660 10000
6 1 4A 178 03 4.7 5A464 270 38890
6 1 5A 178 03 1.3 5A462 10 05000 2 2

SOUTH AREA "B" DEV. SITE

Can_sbl.hyc

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SITE LICENSEE: THE KEITH COMPANIES, INC
LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
MODIFIED RATIONAL METHOD HYDROLOGY

LOCATION	SUBAREA		Q	TOTAL AREA	TOTAL CONV	CONV LENGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL SOIL Q	TC	STORM DAY 4	
	AREA	Q										RAIN	IMPV
1A	21.	74.	21.	74.	4	300.	0.35700	2.00	0.00	0.	8	A46	0.21
1	1.	5.	1.	5.	0	0.	0.00000	0.00	0.00	0.	5	A46	0.42
1	1.	5.	22.	78.	4	10.	0.05000	2.50	0.00	0.	0	A46	0.00

SOUTH AREA 'B'

CAN - SBI. DAT

4LADEPTH.RDT
5 1 1A CANYON HILLS - 50 YEAR DEVELOPED SITE (NEW METHODOLOGY) MRU 11/19/02
5 1 3AB FLOOD HYDROGRAPH
6 1 1A 68 2121.0 8A464 300 35700 G1
6 1 2B 68 42 1.0 5A46
6 1 3AB 68 A464 10 05000 2 2

Can_sb2.hyc

CANYON HILLS - 50 YEAR UNDEVELOPED SITE (NEW METHODOLOGY) MRU 11		TOTAL			CONV			CONV			CONTROL			SOIL			STORM DAY 4			
LOCATION	SUBAREA	AREA	Q	TOTAL	Q	TYPE	CONV	LENGTH	SLOPE	CONV	SIZE	CONV	Z	Q	NAME	TC	RAIN	FCT	ZONE	IMPV
1	1A	21.	69.	21.	69.	4	300.	0.35700	2.00	0.00	0.00	0.	68	0.	68	8	A46	0.01	A46	0.01
1	2B	1.	4.	1.	4.	0	0.	0.00000	0.00	0.00	0.00	0.	68	0.	68	5	A46	0.01	A46	0.01
1	3AB	1.	4.	22.	73.	4	10.	0.05000	2.25	0.00	0.00	0.	68	0.	68	0	A46	0.00	A46	0.00

41ADEPTH.RDT 1A CANYON HILLS - 50 YEAR UNDEVELOPED SITE (NEW METHODOLOGY) MRU 11/19/02

5	1	3AB FLOOD HYDROGRAPH			
5	1	1A 68 0121.0 8A464	300	35700	G1
6	1	2B 68 01 1.0 5A46			
6	1	3AB 68 A464	10	05000	2 2

Can_sbU2.dat

4LDEPTH.RDT
5 1 1A CANYON HILLS - 50 YEAR UNDEVELOPED/BURNED SITE (NEW METHODOLOGY) MRU 01/07/03
5 1 3AB FLOOD HYDROGRAPH
6 1 1A 178 0321.0 8A464 300 35700 G1
6 1 2B 178 03 1.0 5A46
6 1 3AB178 A464 10 05000 2 2

Can_sbu2.hyc

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1- 7-2003 SITE LICENSEE: THE KEITH COMPANIES, INC.
LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
MODIFIED RATIONAL METHOD HYDROLOGY

CANYON HILLS - 50 YEAR UNDEVELOPED/BURNED SITE (NEW METHODOLOGY)		CONV		CONV		CONV		CONTROL SOIL		STORM DAY 4							
LOCATION	SUBAREA	AREA	Q	TOTAL	Q	TYPE	CONV	SLOPE	SIZE	Z	Q	NAME	TC	RAIN	PCT	ZONE	IMPV
1	1A	21.	79.	21.	79.	4	300.	0.35700	2.00	0.00	0.	178	8	A46	0.03	A46	0.03
1	2B	1.	5.	1.	5.	0	0.	0.00000	0.00	0.00	0.	178	5	A46	0.03	A46	0.03
1	3AB	1.	5.	22.	83.	4	10.	0.05000	2.50	0.00	0.	178	0	A46	0.00	A46	0.00

SOUTH REA "C" DEV. SITE

Can_sc.hyc

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 LOS ANGELES COUNTY FLOOD CONTROL DISTRICT PROG F0601A
 MODIFIED RATIONAL METHOD HYDROLOGY

CANYON HILLS - 50 YEAR DEVELOPED SITE (NEW METHODOLOGY) MRU 10/2

LOCATION	AREA	Q	26.	6.	TOTAL	Q	TYPE	CONV	LENGTH	SLOPE	CONV	SIZE	CONV	Z	CONTROL	SOIL	TC	RAIN	FCT	ZONE	IMPV
1 1A	6.	26.		6.	26.	4	4	50.	50.	0.10000	2.00	0.00	0.00	0.	68	5	A46	0.01			
1 2B	1.	5.		1.	5.	0	0	0.	0.	0.00000	0.00	0.00	0.00	0.	68	5	A46	0.42			
1 3AB	1.	5.		7.	31.	4	4	140.	140.	0.38890	2.00	0.00	0.00	0.	68	0	A46	0.00			
1 4A	1.	5.		8.	35.	2	2	10.	10.	0.05000	0.00	0.00	0.00	0.	68	5	A46	0.42			

SOUTH AREA '65

4LADEPTH.RDT
5 1 1A CANYON HILLS - 50 YEAR DEVELOPED SITE (NEW METHODOLOGY) MRU 10/29/02
5 1 4A FLOOD HYDROGRAPH
6 1 1A 68 01 6.2 5A464 50 10000 G1
6 1 2B 68 42 1 5A46
6 1 3AB 68 A464 140 38890
6 1 4A 68 42 1 5A462 10 05000 2 2

Can_suc.hyc

CANYON HILLS - 50 YEAR UNDEVELOPED SITE (NEW METHODOLOGY) MRU 10

LOCATION	SUBAREA	AREA	TOTAL AREA	Q	TOTAL Q	CONV TYPE	CONV LENGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN ZONE	PCT IMPV
1	1A	6.	6.	26.	4	50.	0.10000	2.00	0.00	0.	68	5	A46	0.01	
1	2B	1.	1.	4.	0	0.	0.00000	0.00	0.00	0.	68	5	A46	0.01	
1	3AB	1.	7.	30.	4	140.	0.38890	2.00	0.00	0.	68	0	A46	0.00	
1	4A	1.	8.	34.	2	10.	0.05000	0.00	0.00	0.	68	5	A46	0.01	

4LADDEPTH.RDT
 5 1 1A CANYON HILLS - 50 YEAR UNDEVELOPED SITE (NEW METHODOLOGY) MRU 10/30/02
 5 1 4A FLOOD HYDROGRAPH
 6 1 1A 68 01 6.2 5A464 50.10000 G1
 6 1 2B 68 01 1 5A46
 6 1 3AB 68 .A464 140 38890
 6 1 4A 68 01 1 5A462 10 05000 2 2

41ADEPTH.RDT
5 1 1A CANYON HILLS - 50 YEAR UNDEVELOPED/BURNED SITE (NEW METHODOLO
5 1 4A FLOOD HYDROGRAPH
6 1 1A 178 03 6.2 5A464 50.10000 G1
6 1 2B 178 03 1 5A46
6 1 3AB178 A464 140 38890
6 1 4A 178 03 1 5A462 10 05000 2 2

1- 8-2003

SITE LICENSEE: THE KEITH COMPANIES, INC

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT

MODIFIED RATIONAL METHOD HYDROLOGY

CANYON HILLS - 50 YEAR UNDEVELOPED/BURNED SITE (NEW METHODOLO

LOCATION	SUBAREA	AREA	Q	TOTAL	AREA	TOTAL	Q	CONV	LNTH	CONV	SLOPE	CONV	SIZE	CONV	Z	CONTROL	SOIL	TC	RAIN	IMPV	STORM DAY	
1	1A	6.	29.	6.	29.	4	50.	0.10000	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5	A46	0.03	4	
1	2B	1.	5.	1.	5.	0	0.	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5	A46	0.03		
1	3AB	1.	5.	7.	34.	4	140.	0.38890	2.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0	A46	0.00		
1	4A	1.	5.	8.	38.	2	10.	0.05000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5	A46	0.03		

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SOUTH MEA "D" DEV SITE

Can_sd.hyc

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10-30-2002 SITE LICENSEE: THE KEITH COMPANIES, INC
LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
MODIFIED RATIONAL METHOD HYDROLOGY

LOCATION	SUBAREA		TOTAL		CONV LENGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	STORM DAY 4	
	AREA	Q	AREA	Q								RAIN ZONE	PCT IMPV
1 1A	8.	35.	8.	35.	400.	0.10000	2.00	0.00	0.	68	5	A46	0.01
1 2B	3.	15.	3.	15.	0.	0.00000	0.00	0.00	0.	68	5	A46	0.42
1 3AB	3.	15.	11.	47.	400.	0.38890	2.00	0.00	0.	68	0	A46	0.00
1 4A	2.	10.	13.	56.	10.	0.05000	0.00	0.00	0.	68	5	A46	0.42

4LADEPTH.RDT
1A CANYON HILLS - 50 YEAR DEVELOPED SITE (NEW METHODOLOGY) MRU 10/30/02

5	1	1A	4A	FLOOD HYDROGRAPH	400	10000	G1
5	1	1A	68	01	7.7	5A464	
6	1	1A	68	42	2.8	5A46	
6	1	2B	68	42	2.8	5A46	
6	1	3AB	68			A464	2
6	1	4A	68	42	1.6	5A462	2

4LADEPTH.RDT
 5 1 1A CANYON HILLS - 50 YEAR UNDEVELOPED SITE (NEW METHODOLOGY) MRU 10/30/02
 5 1 5A FLOOD HYDROGRAPH
 6 1 1A 68 01 7.7 5A464 400 10000 G1
 6 1 2B 68 01 2.8 5A46
 6 1 3AB 68 A464 400 38890
 6 1 4A 68 01 1.6 5A462 10 05000 2 2

4LADEPTH.RDT
5 1 IA CANYON HILLS - 50 YEAR UNDEVELOPED/BURNED SITE (NEW METHODOLOGY) MRU 01/08/03

5 1 5A FLOOD HYDROGRAPH 400 10000 G1
6 1 IA 178 03 7.7 5A464
6 1 2B 178 03 2.8 5A46
6 1 3AB178 A464 400 38890
6 1 4A 178 03 1.6 5A462 10 05000 2 2

1- 8-2003 SITE LICENSEE: THE KEITH COMPANIES, INC
LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
SUBAREA AND HYDROGRAPH DATA ERROR MESSAGES

1 4A ERROR # 15

1- 8-2003 SITE LICENSEE: THE KEITH COMPANIES, INC
LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
MODIFIED RATIONAL METHOD HYDROLOGY

CANYON HILLS - 50 YEAR UNDEVELOPED/BURNED SITE (NEW METHODOLOGY)

LOCATION	SUBAREA	AREA	TOTAL AREA	TOTAL Q	CONV TYPE	CONV LENGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	CONTROL SOIL NAME	TC	RAIN ZONE	STORM DAY
1	1A	8.	39.	8.	4	400.	0.10000	2.00	0.00	0.	178	5	A46	4
1	2B	3.	15.	3.	0	0.	0.00000	0.00	0.00	0.	178	5	A46	0.03
1	3AB	3.	15.	11.	4	400.	0.38890	2.00	0.00	0.	178	0	A46	0.00
1	4A	2.	10.	13.	2	10.	0.05000	0.00	0.00	0.	178	5	A46	0.03

SOUTH AREA "E" DEV. SITE

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10-30-2002 SITE LICENSEE: THE KEITH COMPANIES, INC PAGE 1
 CANYON HILLS - 50 YEAR DEVELOPED SITE (NEW METHODOLOGY) MRU 10/3 LOS ANGELES COUNTY FLOOD CONTROL DISTRICT PROG F0601A

CANYON HILLS - 50 YEAR DEVELOPED SITE (NEW METHODOLOGY) MRU 10/3		MODIFIED RATIONAL METHOD HYDROLOGY		CONV		CONV		CONV		CONTROL		SOIL		STORM DAY 4	
LOCATION	AREA	Q	TOTAL	Q	TYPE	CONV	SLOPE	SIZE	Z	Q	NAME	TC	RAIN	ZONE	PCT
1	4	19.	19.	4	4	150.	0.35000	2.00	0.00	0.	68	5	A46	0.42	IMPV
2A	1.	5.	24.	2	2	10.	0.05000	0.00	0.00	0.	68	5	A46	0.42	IMPV

SOUTH AREA 'B'

4LADEPTH.RDT
5 1 1A CANYON HILLS - 50 YEAR DEVELOPED SITE (NEW METHODOLOGY) MRU 10/30/02
5 1 2A FLOOD HYDROGRAPH
6 1 1A 68 42 3.9 5A464 150 35000 G1
6 1 2A 68 42 1. 5A462 10 05000 2 2

Can_sue.hyc

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
MODIFIED RATIONAL METHOD HYDROLOGY

LOCATION	50 YEAR UNDEVELOPED SITE (NEW METHODOLOGY)		TOTAL CONV		CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	CONTROL SOIL NAME	TC	STORM DAY 4	
	AREA	Q	Q	TYPE							RAIN PCT	ZONE IMPV
1A	4.	17.	17.	4	0.35000	2.00	0.00	0.	68	5	A46	0.01
2A	1.	4.	22.	2	0.05000	0.00	0.00	0.	68	5	A46	0.01

SOUTH ARIZONA 'E'

4LADEPTH.RDT
5 1 1A CANYON HILLS - 50 YEAR UNDEVELOPED SITE (NEW METHODOLOGY) MRU 10/30/02
5 1 2A FLOOD HYDROGRAPH
6 1 1A 68 01 3.9 5A464 150 35000 G1
6 1 2A 68 01 1. 5A462 10 05000 2 2

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4LDEPTH.RDT
5 1 1A CANYON HILLS - 50 YEAR UNDEVELOPED/BURNED SITE (NEW METHODOLOGY) MRU 01/08/03
5 1 2A FLOOD HYDROGRAPH
6 1 1A 178 03 3.9 5A464 150 35000 G1
6 1 2A 178 03 1. 5A462 10 05000 2 2

Can_sube.hyc

1- 8-2003 SITE LICENSEE: THE KEITH COMPANIES, INC
LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
MODIFIED RATIONAL METHOD HYDROLOGY

CANYON HILLS - 50 YEAR UNDEVELOPED/BURNED SITE (NEW METHODOLOGY)

LOCATION	SUBAREA	AREA	Q	TOTAL AREA	TOTAL Q	CONV TYPE	CONV LNPTH	CONV SLOPE	CONV SIZE	CONV Z	CONV CONTROL	SOIL NAME	TC	RAIN PCT	IMPV	STORM DAY
1	1A	4.	19.	4.	19.	4	150.	0.35000	2.00	0.00	0.	178	5	A46	0.03	4
1	2A	1.	5.	5.	24.	2	10.	0.05000	0.00	0.00	0.	178	5	A46	0.03	4