

San Bernardino County Rational Hydrology Program

(Hydrology Manual Date - August 1986)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2004 Version 7.0
Rational Hydrology Study Date: 02/01/05

COYOTE CANYON - 52641
100 YEAR RATIONAL METHOD ANALYSIS
TRACT 16290-F, AREA A
FN: ARA00.RSB

***** Hydrology Study Control Information *****

Rational hydrology study storm event year is 100.0
Computed rainfall intensity:
Storm year = 100.00 1 hour rainfall = 1.600 (In.)
Slope used for rainfall intensity curve b = 0.6000
Soil antecedent moisture condition (AMC) = 2

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Process from Point/Station 201.100 to Point/Station 201.200
**** INITIAL AREA EVALUATION ****

RESIDENTIAL(3 - 4 dwl/acre)
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2) = 32.00
Pervious ratio(Ap) = 0.6000 Max loss rate(Fm)= 0.587(In/Hr)
Initial subarea data:
Initial area flow distance = 239.000(Ft.)
Top (of initial area) elevation = 1758.200(Ft.)
Bottom (of initial area) elevation = 1746.300(Ft.)
Difference in elevation = 11.900(Ft.)
Slope = 0.04979 s(%)= 4.98
TC = k(0.412)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 6.712 min.
Rainfall intensity = 5.955(In/Hr) for a 100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.811
Subarea runoff = 0.966(CFS)
Total initial stream area = 0.200(Ac.)
Pervious area fraction = 0.600
Initial area Fm value = 0.587(In/Hr)

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Process from Point/Station 201.200 to Point/Station 201.000
**** STREET FLOW TRAVEL TIME + SUBAREA FLOW ADDITION ****

Top of street segment elevation = 1746.300(Ft.)