

WORKSHEET

Use the information given below to complete the blanks for pre-development and post-development conditions for Sites C1 and C2. Assume drainage areas equal site areas.

C1		
	Pre	Post
Tc (min)	20	5
Tc (hr)		

C2		
	Pre	Post
Tc (min)	20	5
Tc (hr)		

CN	74	79
S		
Ia		
P, in	2.6	
Ia/P		
qu (csm/in)*		

*Use Type II rainfall distribution

CN	74	79
S		
Ia		
P, in	2.6	
Ia/P		
qu (csm/in)*		

*Use Type II rainfall distribution

Q, in		
Vr, ac-ft		
Fp	1	1

Q, in		
Vr, ac-ft		
Fp	1	1

DA (acres)	5.4	6.2
DA (sq mi)		

DA (acres)	5.4	4.7
DA (sq mi)		

q(peak), cfs		
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q(peak), cfs		
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q(allowable), cfs	
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q(allowable), cfs	
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Pre = Pre-development condition
 Post = Post-development condition
 Tc = time of concentration
 CN = Curve Number
 S = Maximum Potential Retention
 Ia = Initial Abstraction
 P = Precipitation

qu = Unit Peak Discharge
 csm/in = cubic feet per second per square mile per inch
 Q, in = Runoff depth in inches
 Vr, ac-ft = Runoff volume in ac-ft (total runoff across drainage area)
Vr (ac-ft) = Q(in) x DA(ac) x 1ft/12in
 Fp = Pond and Swamp Adjustment Factor
 DA, ac or sq mi = Drainage Area in acres or square miles
 q(peak), cfs = Peak Discharge Rate in cubic feet per second
 q(allowable), cfs = Allowable Peak Discharge Rate in cubic feet per second