

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)	0.3333	0.0833

CN	74	79
S	3.514	2.658
Ia	0.703	0.532
P, in	2.6	
Ia/P	0.27	0.20
qu (csm/in)*	570	975

*Use Type II rainfall distribution

Q, in	0.665	0.905
Vr, ac-ft	0.299	0.468
Fp	1	1

DA (acres)	5.4	6.2
DA (sq mi)	0.00844	0.00969

q(peak), cfs	3.2	8.5
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q(allowable), cfs	1.6	
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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

C2		
	Pre	Post
Tc (min)	20	5
Tc (hr)	0.3333	0.0833

CN	74	79
S	3.514	2.658
Ia	0.703	0.532
P, in	2.6	
Ia/P	0.27	0.20
qu (csm/in)*	570	975

*Use Type II rainfall distribution

Q, in	0.665	0.905
Vr, ac-ft	0.299	0.355
Fp	1	1

DA (acres)	5.4	4.7
DA (sq mi)	0.00844	0.00734

q(peak), cfs	3.2	6.5
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q(allowable), cfs	2.2	
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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)
 $Vr \text{ (ac-ft)} = Q \text{ (in)} \times DA \text{ (ac)} \times 1 \text{ ft}/12 \text{ in}$
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