

# WORKSHEET

Use the information given below to complete the blanks for pre-development and post-development conditions for Sites B1, B2, and B3. Assume drainage areas equal site areas.

B1		
	Pre	Post
Tc (min)	20	5
Tc (hr)		

B2		
	Pre	Post
Tc (min)	20	5
Tc (hr)		

B3		
	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

CN	74	83
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

Q, in		
Vr, ac-ft		
Fp	1	1

DA (acres)	5.4	5.4
DA (sq mi)		

DA (acres)	5.4	5.4
DA (sq mi)		

DA (acres)	5.4	5.4
DA (sq mi)		

q(peak), cfs		
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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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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)  
 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

$$Vr (ac-ft) = Q(in) \times DA(ac) \times 1ft/12in$$