

**Worksheet 3: Factor of Safety and Design Infiltration Rate and Worksheet**

Factor Category		Factor Description	Assigned Weight (w)	Factor Value (v)	Product (p) $p = w \times v$
A	Suitability Assessment	Soil assessment methods	0.25		
		Predominant soil texture	0.25		
		Site soil variability	0.25		
		Depth to groundwater / impervious layer	0.25		
		Suitability Assessment Safety Factor, $S_A = \Sigma p$			
B	Design	Tributary area size	0.25		
		Level of pretreatment/ expected sediment loads	0.25		
		Redundancy/contingency plan	0.25		
		Compaction during construction	0.25		
		Design Safety Factor, $S_B = \Sigma p$			
Combined Safety Factor, $S_{Total} = S_A \times S_B$					
Observed Infiltration Rate, inch/hr, $K_{obs}$ (corrected for test-specific bias)					
Design Infiltration Rate, in/hr, $K_{design} = K_{obs} / S_{Total}$					
<b>Supporting Data</b>					
Briefly describe infiltration test and provide reference to test forms:					

**Note:** The minimum combined adjustment factor shall not be less than 2.0 and the maximum combined adjustment factor shall not exceed 9.0.