

1. Erosion Hazard and Sediment Basins

Site Name: Julius Avenue Data Centre

Site Location: 6-8 Julius Avenue, North Ryde NSW 2113

Precinct/Stage:

Other Details:

Site area	Sub-catchment or Name of Structure						Notes
Total catchment area (ha)	2.863						
Disturbed catchment area (ha)	2.075						

Soil analysis (enter sediment type if known, or laboratory particle size data)

Sediment Type (C, F or D) if known:	C						From Appendix C (if known)
% sand (fraction 0.02 to 2.00 mm)							Enter the percentage of each soil fraction. E.g. enter 10 for 10%
% silt (fraction 0.002 to 0.02 mm)							
% clay (fraction finer than 0.002 mm)							
Dispersion percentage							E.g. enter 10 for dispersion of 10%
% of whole soil dispersible							See Section 6.3.3(e). Auto-calculated
Soil Texture Group	C						Automatic calculation from above

Rainfall data

Design rainfall depth (no of days)	5						See Section 6.3.4 and, particularly, Table 6.3 on pages 6-24 and 6-25.
Design rainfall depth (percentile)	85						
x-day, y-percentile rainfall event (mm)	38.8						
Rainfall R-factor (if known)	3400						Only need to enter one or the other here
IFD: 2-year, 6-hour storm (if known)							

RUSLE Factors

Rainfall erosivity (R -factor)	3400						Auto-filled from above
Soil erodibility (K -factor)	0.019						RUSLE LS factor calculated for a high rill/interrill ratio.
Slope length (m)	176						
Slope gradient (%)	14.72						
Length/gradient (LS -factor)	8.78						
Erosion control practice (P -factor)	1.3	1.3	1.3	1.3	1.3	1.3	
Ground cover (C -factor)	1	1	1	1	1	1	

Sediment Basin Design Criteria (for Type D/F basins only. Leave blank for Type C basins)

Storage (soil) zone design (no of months)	6						Minimum is generally 2 months
Cv (Volumetric runoff coefficient)	0.64						See Table F2, page F-4 in Appendix F

Calculations and Type D/F Sediment Basin Volumes

Soil loss (t/ha/yr)	737						
Soil Loss Class	5						See Table 4.2, page 4-13
Soil loss (m ³ /ha/yr)	567						Conversion to cubic metres
Sediment basin storage (soil) volume (m ³)	588						See Sections 6.3.4(i) for calculations
Sediment basin settling (water) volume (m ³)	711						See Sections 6.3.4(i) for calculations
Sediment basin total volume (m ³)	1299						

NB for sizing of Type C (coarse) sediment basins, see Worksheet 3 (if required).