

1. Erosion Hazard and Sediment Basins

Site Name: Slys Quarry

Site Location: Mororo

Precinct/Stage:

Other Details:

Site area	Sub-catchment or Name of Structure						Notes
	A						
Total catchment area (ha)	30						
Disturbed catchment area (ha)	30						

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

Sediment Type (C, F or D) if known:	D						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	D						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)	90						
x-day, y-percentile rainfall event (mm)	50.1						
Rainfall R-factor (if known)	3750						Only need to enter one or the other here
IFD: 2-year, 6-hour storm (if known)							

RUSLE Factors

Rainfall erosivity (R -factor)	3750						Auto-filled from above
Soil erodibility (K -factor)	0.039						RUSLE LS factor calculated for a high rill/interrill ratio.
Slope length (m)	80						
Slope gradient (%)	5						
Length/gradient (LS -factor)	1.19						
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)	0.69						See Table F2, page F-4 in Appendix F

Calculations and Type D/F Sediment Basin Volumes

Soil loss (t/ha/yr)	226						
Soil Loss Class	2						See Table 4.2, page 4-13
Soil loss (m ³ /ha/yr)	174						Conversion to cubic metres
Sediment basin storage (soil) volume (m ³)	2604						See Sections 6.3.4(i) for calculations
Sediment basin settling (water) volume (m ³)	10371						See Sections 6.3.4(i) for calculations
Sediment basin total volume (m ³)	12975						

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