

Appendix C

Greenfield Runoff and Volume Calculations

GREENFIELD RUNOFF CALCULATIONS

IH 124 METHOD

Area (ha)	1.5
SOIL type	3
SOIL index	0.4
SAAR (mm)	1098
Hydrometric area	9

Greenfield Qbar for 50 ha site	0.288 m ³ /s	5.76 l/s/ha
Greenfield Qbar for site	0.009 m ³ /s	8.6 l/s

1 year factor	0.88
2 year factor	0.93
30 year factor	1.8
100 year factor	2.18

Greenfield flow rates		
1 year	7.6 l/s	5.07 l/s/ha
2 year	8.0 l/s	5.36 l/s/ha
30 year	15.6 l/s	10.37 l/s/ha
100 year	18.8 l/s	12.56 l/s/ha

$$Q_{BAR(rural)} = 0.00108 \text{ AREA}^{0.89} \times \text{SAAR}^{1.17} \times \text{SOIL}^{2.17}$$

Pre-development discharge

Site Makeup	Greenfield	▼
Greenfield Method	FSR/FEH	▼
Positively Drained Area (ha)	1.500	
Soil Index	3	▼
SPR	0.40	
Catchment Wetness Index	125.175	Calc
Return Period (years)	100	
Climate Change (%)	0	
Storm Duration (mins)	360	
Betterment (%)	0	
	Calc	
PR	0.449	
Runoff Volume (m³)	471	