

	Land at Woodcroft Farm		JOB No:	21834/016		SHEET:	1 of 1
			DATE:	19.08.2010	BY:	CMB	CHECKED:
	Preliminary Drainage Strategy Calculation of Greenfield Runoff Rate						MJP

Calculation based on "Preliminary rainfall runoff management for developments - Technical Report W5-074A/TR/1, Revision D, September 2005", Defra / Environmental Agency Flood and Coastal Defence R&D Programme

	Site	
R	7	Hydrological region
S	4	SOIL type
Catchment	<200 ha	
$A_{(site)}$	10.80 ha	Size of catchment (excluding large open parkland that is to remain)
SAAR or AAR	800 mm	
SPR	0.47	For SOIL type 4
$A_{(50)}$	50 ha	Use 50ha for sites less than 50ha
$Q_{BAR(50)}$	282.21 l/s	Catchment mean annual peak flow for $A_{(50)}$ (50ha site)
Q_{BAR}	60.96 l/s	
$Q_{BAR(site)}/A_{(site)}$	5.64 l/s/ha	Mean annual peak flow per unit area
$Q_{throttle}$	5 l/s	Based on minimum throttle - refer to Page xvi, para 17
$Q_{throttle}/A_{(site)}$	0.46 l/s/ha	
$Q_{throttle}/3.5A_{(site)}$	0.13 l/s/ha	
Q_{BAR}/A	5.64 l/s/ha	Use greater value of $Q_{BAR(site)}/A_{(site)}$ and $Q_{throttle}/A_{(site)}$
GC_1	0.85	Value taken from Line 11.1
GC_{30}	2.24	Value taken from Figure 1.2
GC_{100}	3.19	Value taken from Figure 1.2
Q_{1yr}	4.80 l/s/ha	
Q_{30yr}	12.64 l/s/ha	
Q_{100yr}	18.01 l/s/ha	
Total Q_{1yr}	51.81 l/s	
Total Q_{30yr}	136.55 l/s	
Total Q_{100yr}	194.46 l/s	