

Allowable Runoff Rates

Surface Water Discharge from Development Sites

Greenfield sites

For greenfield, or previously undeveloped, sites the existing rate of surface water discharge must usually be maintained. In some cases, we may require a reduction from the existing rate of discharge.

Firstly, an assessment of the existing, greenfield, rate of surface water discharge from the site should be made. The annual exceedance probability (AEP) you will need to use for this calculation is shown in the table below.

Site Characteristic	Annual Exceedance Probability (AEP)	Equivalent Return Period
Average site ground slope greater than 1%	100%	1 in 1 year
Average site ground slope 1% or less	50%	1 in 2 year

The rate of surface water discharge for the 1% AEP design event (1 in 100 year return period) from the proposed development site, including an allowance for climate change (20% allowance for non-residential developments and 30% allowance for residential developments), should be limited to the above calculated greenfield rate.

The difference in these flow rates may result in the need for some form of attenuation. Refer to Table 7.1 in the Surface Water Management: Interim Guidance for Developers document for types of SuDS feature which can offer attenuation solutions.

Brownfield sites

For brownfield, or previously developed, sites, the existing rate of surface water discharge must be reduced by a minimum of 50%.

Firstly, an assessment of the existing rate of discharge from the site should be made. The annual exceedance probability (AEP) you will need to use for this calculation is shown in the table below.

Site Characteristic	Annual Exceedance Probability (AEP)	Equivalent Return Period
Average site ground slope greater than 1%	100%	1 in 1 year
Average site ground slope 1% or less	50%	1 in 2 year

The rate of surface water discharge for the 1% AEP design event (1 in 100 year return period) from the proposed development site, including an allowance for climate change (20% allowance for non-residential developments and 30% allowance for residential developments), should be limited to a maximum of 50% of the above calculated brownfield rate.

The difference in these flow rates may result in the need for some form of attenuation. Refer to Table 7.1 in the Surface Water Management: Interim Guidance for Developers document for types of SuDS feature which can offer attenuation solutions.