

# Surface Water Drainage Proforma

West Sussex County Council (WSCC) as Lead Local Flood Authority recommends this proforma is completed and submitted to support any planning application for a major development. The information contained in this form will be used by WSCC officers in their role as 'statutory consultee' on surface water drainage. The proforma should accompany the site-specific Flood Risk Assessment and Drainage Strategy submitted as part of the planning application.

## 1. Site Details

No.	Requirement	Answer	Application Type
1.1	Address including postcode		Outline & Full
1.2	OS grid reference (easting and northing)		Outline & Full
1.3	Planning application reference		Outline & Full
1.4	Total site area (hectares)		Outline & Full
1.5	Pre-development use		Outline & Full
1.6	Proposed design life		Outline & Full
1.7	Have agreements in principle for discharge been provided (where applicable)? (YES/NO)		Outline & Full
1.8	Topographic Survey Plan showing existing site layout, site levels and drainage system		Outline & Full

## 2. Discharge Hierarchy/Methods of Discharge<sup>1</sup>

No.	Requirement	Answer	Application Type
2.1	Store rainwater for later use (reuse) (YES/NO)		Full
2.2	Infiltration techniques such as soakaways, permeable paving, etc (YES/NO)		Outline & Full
2.3	Hybrid (YES/NO)		Outline & Full

<sup>1</sup> Runoff may be discharged via one or multiple methods.

No.	Requirement	Answer	Application Type
2.4	Attenuation with restricted discharge to watercourse (YES/NO)		Outline & Full
2.5	Attenuation with restricted discharge to surface water sewer (YES/NO)		Outline & Full
2.6	Attenuation with restricted discharge to combined sewer (YES/NO)		Outline & Full

### 3. Calculation Inputs

No.	Requirement	Answer	Application Type
3.1	Area within site which is drained by SuDS <sup>2</sup> (hectares)		Outline & Full
3.2	Impermeable area drained pre-development <sup>3</sup> (hectares)		Outline & Full
3.3	Impermeable area drained post-development <sup>3</sup> (hectares)		Outline & Full
3.4	Urban Creep (hectares)		Outline & Full
3.5	Climate change factor applied (1 in 30 and 1 in 100) (percentage)		Outline & Full

### 4. Infiltration Feasibility/Ground Investigations

No.	Requirement	Answer	Application Type
4.1	Has winter groundwater monitoring and infiltration been undertaken? (YES/NO)		Outline & Full
4.2	Period of winter groundwater monitoring (from/to)		Outline & Full
4.3	Depth to highest recorded groundwater level (mAOD)		Full
4.4	Infiltration rate		Outline & Full

<sup>2</sup> Impermeable area should be measured pre and post development. Impermeable surfaces include roofs, pavements, driveways and paths, where runoff is conveyed to the drainage system.

<sup>3</sup> 10% Urban Creep should be added to the volumes required for storage and not increase discharge rates.

No.	Requirement	Answer	Application Type
4.5	Depth of infiltration structure (mAOD)		Full
4.6	Safety factor used for sizing infiltration storage		Outline & Full

### 5. Calculation Outputs: Greenfield Runoff Rates<sup>4</sup>

No.	Requirement	Answer	Application Type
5.1	Qbar (l/s)		Outline & Full
5.2	1 in 1 year rainfall (l/s)		Outline & Full
5.3	1 in 30 year rainfall (l/s)		Outline & Full
5.4	1 in 100 year rainfall (l/s)		Outline & Full

### 6. Calculation Outputs: Brownfield Runoff Rates (including Urban Creep) (if applicable)

No.	Requirement	Answer	Application Type
6.1	1 in 1 year rainfall (l/s)		Outline & Full
6.2	1 in 30 year rainfall (l/s)		Outline & Full
6.3	1 in 100 year rainfall (l/s)		Outline & Full

### 7. Calculation Outputs: Volume Control/Infiltration Provision

No.	Requirement	Answer	Application Type
7.1	Infiltration (m <sup>3</sup> )		Outline & Full
7.2	Attenuation (m <sup>3</sup> )		Outline & Full
7.3	Separate volume designated as long-term storage <sup>5</sup> (m <sup>3</sup> )		Full
7.4	Total volume control (sum of inputs for 7.1 to 7.3) (m <sup>3</sup> )		Full

<sup>4</sup> Flows within long term storage areas should be infiltrated to the ground or discharged at low flow rate of maximum 2 litres per second per hectare (l/s/ha).

<sup>5</sup> In calculations and for the avoidance of doubt FEH shall be used FSR is not acceptable, and CV values must equal 1.

## 8. Calculation Outputs: Attenuation/Restricted Discharge

No.	Requirement	Answer	Application Type
8.1	Proposed discharge rate (critical storm)	1 in 1 (100%) AEP (m/s)	Outline & Full
		1 in 30 (3.33%) AEP (m/s)	Outline & Full
		1 in 30 (3.33%) AEP plus climate change (m/s)	Outline & Full
		1 in 100 (1%) AEP (m/s)	Outline & Full
		1 in 100 (1%) AEP plus climate change (m/s)	Outline & Full
8.2	Calculations show critical storm durations (both by max height and max discharge) for 1 in 1, 1 in 30, 1 in 30 plus climate change, 1 in 100 and 1 in 100 year plus climate change allowance can be accommodated on site (YES/NO)		Outline & Full
8.3	Has treatment of potential contaminants been considered? (YES/NO)		Outline & Full
8.4	Demonstration of source control features with substantive evidence why these cannot be used if not (YES/NO)		Full
8.5	If discharging into a watercourse, piped system or the sea, has the proposed drainage network been modelled against predicted top water levels for the 1 in 100 year storm event plus climate change allowance, within the existing system? (YES/NO)		Full

## 9. Other Supporting Details

No.	Requirement	Answer	Application Type
9.1	Plan detailing location of groundwater monitoring and infiltration testing		Outline & Full
9.2	Detailed drainage design layout		Full
9.3	Maintenance strategy		Full

No.	Requirement	Answer	Application Type
9.4	Detailed development layout		Full
9.5	Impermeable area plan		Full
9.6	Phasing plan?		Full
9.7	If ground levels are being raised over 300mm above existing levels and is unavoidable, have detailed plans been provided, together with drainage proposals, to address any potential drainage related issues?		Full

The above form should be completed using evidence from information which should be appended to this form. The information being submitted should be proportionate to the site conditions, flood risks and magnitude of development. It should serve as a summary of the drainage proposals and should clearly show that the proposed discharge rate and volume as a result of development will not be increasing. Where there is an increase in discharge rate or volume, then the relevant section of this form must be completed with clear evidence demonstrating how the requirements will be met.

This form is completed using factual information and can be used as a summary of the surface water drainage strategy on this site.

<b>Form completed by</b>	
<b>Qualification of person responsible for signing off this proforma</b>	
<b>Company</b>	
<b>On behalf of (client's details)</b>	
<b>Date</b>	