

Surface Water Management Schemes



Information Requirements for Planning Applications

Surface Water Management Scheme Information Requirements

In accordance with the National Planning Policy Framework, major developments should incorporate a Sustainable Drainage System, to ensure that the standard of Surface Water Management is appropriate.

Non-major developments should also follow the advice provided in this document.

Major Developments

Major developments are defined in Article 2(1) of the Town and Country Planning, Development Management Procedure, England Order 2010 and includes:

- 10 or more houses
- A site larger than 0.5 hectare where the number of houses is not known
- A building or buildings where the floor space is more than 1,000m²
- A building or buildings where the site is larger than 1 hectare

Information Guidance

Documentation to be submitted includes, a surface water management scheme drawing, and an accompanying report that provides commentary and calculations. The level of detail required will vary depending on the proposed development and the application type, but should be commensurate with the nature, scale and application type of the development.

The guidance below outlines the typical information required to substantiate a viable surface water management scheme proposed as part of a planning application.

Surface Water Drainage Strategy Drawing(s)

- i. A drawing must be included that shows where the surface water management infrastructure is located and where it is discharging to.
- ii. Details of levels should be included to demonstrate that the scheme will discharge under gravity and without the need for pumping.
- iii. Exceedance flow routes from the scheme are to be shown.

Accompanying report

The report should provide commentary and calculations to substantiate the design shown in the drawing. The following details are typically included:

- i. Site description including size (ha) and the redline application boundary.



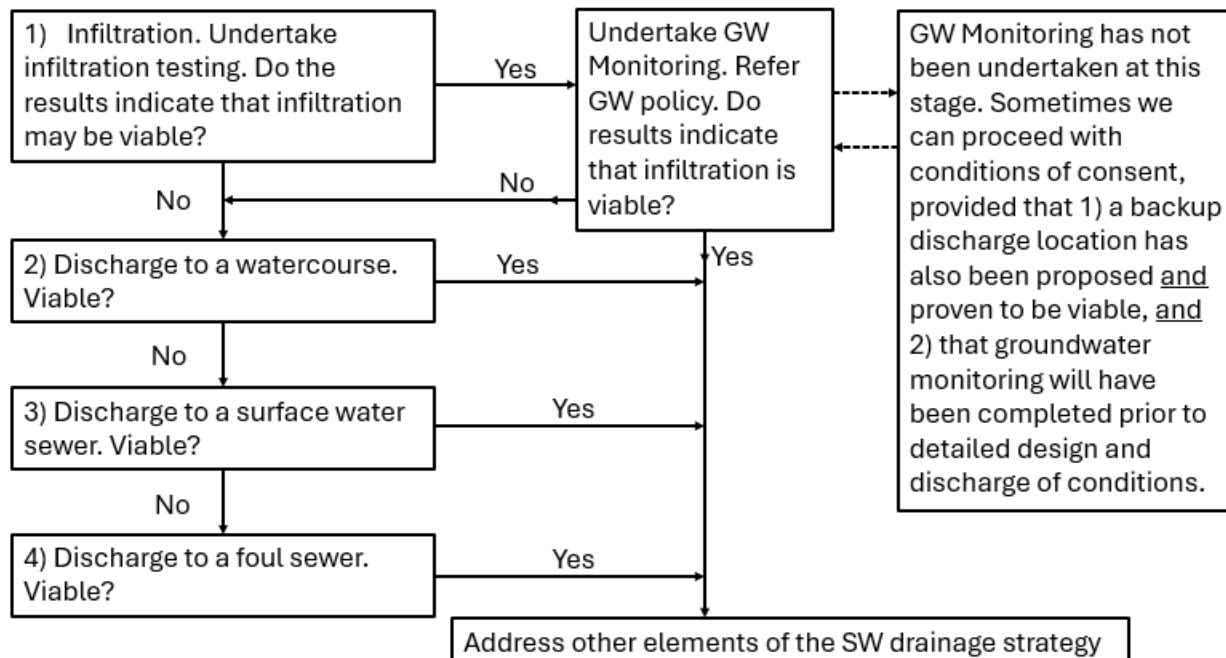
- ii. Greenfield/brownfield classification and the breakdown of pervious/impervious surfaces before and after development.
- iii. Calculation of existing runoff rates and post development design runoff rates. The two recognised methods for calculating the design discharge rates are 1) restricting post development rates to the greenfield QBAR rate for all events or 2) matching greenfield runoff rates and providing long term storage.
- iv. Flood issues that may affect the operation of the scheme. Surface water flood mapping and other relevant flood risk mapping should be reviewed.
- v. Topographic survey indicating slope direction and general surface water runoff direction
- vi. Surface water quality assessment using the simple index method or similar.
- vii. Results of infiltration testing and/or groundwater monitoring.
- viii. Approval from Wessex Water, Environment Agency, or others to discharge to the proposed location.

Surface Water Discharge Location

This is fundamental and the following hierarchy should be followed:

- 1) Discharge into the ground (infiltration)
- 2) Discharge to a surface water body (watercourse)
- 3) Discharge to a surface water sewer
- 4) Discharge to a foul sewer (unlikely to be approved by the water undertaker)

The flowchart below should be followed to determine the appropriate discharge location.



Infiltration testing (BRE 365) will be required at the proposed location, and depth, of the infiltration device. If the infiltration test results are favourable and this is the sole method of disposal proposed i.e. (a backup option has not been proposed and substantiated), then the results of groundwater monitoring are also to be submitted with the planning application to fully substantiate the infiltration proposal (refer to groundwater monitoring below).

If a backup option is also proposed in addition to infiltration (i.e. discharge to watercourse or surface water sewer), then information relevant to (viii) above should be submitted with the planning application to substantiate the discharge location, regardless of whether it is the primary or back up disposal option. If the backup option is fully substantiated, then we can consider deferring the requirement for submission of the groundwater monitoring results until the discharge of conditions/detailed design stage.

If initial infiltration testing provides unfavourable results, then the applicant can move down the SuDS hierarchy, i.e. investigate and substantiate discharge to watercourse or surface water sewer. Groundwater monitoring would not be required in this scenario.

Groundwater Monitoring

Groundwater monitoring should demonstrate 1m of clearance between the base of the infiltration device and the maximum groundwater level as per BRE Digest 365 and Ciria SuDS Manual.

Twelve months of groundwater monitoring should be undertaken. However, if there are time constraints, we would accept monitoring undertaken between the start of November and the end of May. This is provided that the results demonstrate that the maximum groundwater peak level has been achieved and has declined for two consecutive months. Ideally, two readings per month should be undertaken.

The number and location of boreholes required will depend on the number of infiltration devices and their location on the site. Boreholes should be drilled to a depth of at least 2m below the base level of the infiltration device.

Further relevant Information:

- The CIRIA SUDS manual
- National Planning Policy Framework
- Planning Practice Guidance – Flood Risk and Coastal Change
- Non-statutory technical standards for SuDS

