

SURFACE WATER CHECKLIST GUIDANCE

Hampshire County Council as Lead Local Flood Authority (LLFA) is a statutory consultee on all major planning applications in Hampshire in relation to Surface Water Drainage.

This guidance is designed to provide advice to developers and applicants and define the information we require to assess planning applications in relation to Surface Water Drainage and has been developed based on the National Planning Policy Guidance as well as utilising best practice information as set out in the Non Statutory Technical Guidance and Ciria SuDS Manual (C753). If guidance or best practice information is required to be used other than the SuDS Manual or NPPF then it will be identified within this document.

An accompanying checklist is provided on our website which must be completed and included in any drainage submissions to ensure all the relevant information is provided and to signpost us to the correct documents. This is also intended to ensure that the applicant is aware of the legal responsibilities and will certify that the information provided is correct.

THESE PROFORMAS MUST BE SUBMITTED WITH ALL MAJOR APPLICATIONS

Given that a different level of information and detail is required depending on the different stage within the planning process (outline, reserved matters and full planning applications), we have identified the information required for all applications and then provided tables, for ease of reference, depending on whether an outline planning application with some matters reserved including layout, or full planning application is submitted.

INFORMATION ON THE PRE-DEVELOPMENT SITE	
Description:	Format:
Topographical Survey.	Drawing(s)
Existing Drainage Confirm what the existing drainage arrangements on site are including Drainage Features and Catchment Areas.	Drawing(s)
Discharge rates and Volumes Calculations will be required demonstrating the pre-runoff rates and volumes. (1)	Calculations
Existing Overland Flow Paths Evidence of and information on the existing surface water flow paths for undeveloped (greenfield) sites.	Drawing(s)
Site Investigations i.e.Site Geology, Infiltration Testing and Groundwater Monitoring. (2) (3)	Test Results & Interpretive Reports.

Guidance notes:

- (1) To be completed using a suitable method such as IH124 or FEH. Information is available from UK Sustainable Drainage: Guidance and Tools. Calculations must show that the proposed run off rates do not exceed the existing run-off rates. This must be shown for the 1 in 1, 1 in 30, 1 in 100 year (plus climate change allowance) annual probability of occurrence.
- (2) Infiltration testing should be carried out in accordance with the BRE365 (2016 methodology) at a depth and location commensurate with the proposed drainage features. If infiltration is thought to be feasible, groundwater monitoring should be undertaken between autumn and spring and demonstrate that there will be at least 1m unsaturated zone between the base of the infiltration features and the highest groundwater recorded.
- (3) If infiltration is not proposed, during the detailed design (Full Planning/Reserved Matters application), the impacts of high groundwater on the drainage system and development proposals should also be assessed by groundwater monitoring. This is particularly important if there is potential for groundwater to enter storage features such as basins or permeable paving such that tanking may be required.

OUTLINE PLANNING PERMISSION.

Applications for outline planning permission seek to establish whether the scale and nature of a proposed development would be acceptable to the local planning authority (LPA), before a fully detailed proposal is put forward.

This type of planning application allows fewer details about the proposal, including drainage, to be submitted. Once outline permission has been granted, a Reserved Matters Application will be required before any construction commences on site.

Outline design requirements are set out in The SuDS Manual (CIRIA C697), this guide is the recognised industry guidance document to the non-statutory technical standards for the design, maintenance and operation of SuDS.

Key tasks: Confirm outline design standards, flow routes, approximate storage requirements and adoption arrangements. Carry out ground investigations and surveys where applicable.

Output: Outline Surface Water Drainage Strategy to support an outline planning application.

*Please note that if the layout approval is also being sought within the Outline Planning Application, we therefore would consider it as a Full Planning Application. This is because since the layout will be fixed, changes to the drainage strategy should be addressed before permission is given to avoid unnecessarily restricting potential drainage design solutions.

Therefore, Hampshire County Council as the Lead Local Flood Authority (LLFA) will require the following information for planning applications for Outline Planning Permission:

OUTLINE DRAINAGE STRATEGY	
Description:	Format:
Confirmation of a discharge location This must be in accordance with the drainage hierarchy of infiltration, discharge to watercourse, discharge to surface water sewer. (1), (2)	Drawing(s)
Surface Water Calculations This must include post development runoff rates for the 1:1, 1:30 and 1:100 + climate change together with the proposed storage requirements and attenuation features.	Calculations
Flood Risk Assessment and / or Drainage Strategy Evidence must be provided demonstrating compliance with the relevant standards i.e. restrictions on discharge rates, demonstration of no increased risk on or off site. This is covered under the standard Flood Risk Assessment guidance produced by the Environment Agency.	Report Statement /
Potential Flood Risk This must include an assessment of existing flood risk and the impact of the development on flow routes, flood plain, surface water flood risk areas (high / medium). If there are areas of flood risk within the site, evidence will be required to demonstrate how they have been managed. (3)	Drawing(s), Report Statement /
Drainage Layout Plan	Drawing(s)



This must be an engineering plan showing the location of SuDS features, conveyance paths, discharge points, storage and treatment areas.	
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Guidance notes:

- (1) This should include agreement in principle within the relevant organisation/third party landowner if the discharge point is outside of the site extent together with a good understanding of discharge point sensitivity relating to the receiving water body (including groundwater sensitivity if appropriate).
- (2) Although considered as infiltration, deep bore soakaways are considered to be an option of last resort in terms of the drainage hierarchy due to the potential pollution risk to the aquifer as well as issues with siltation and maintenance. If this is to be considered as an option then discussions must be held with the LLFA as soon as feasible to avoid delays to the application and to confirm the additional requirements that will apply if this is to be progressed.
- (3) It is the LLFA's preference that existing surface water flow routes are retained within green spaces with ground levels being maintained along them to ensure no changes in flood risk as a result of the development. If this is not considered, we will require that finished ground floor levels of any residential development are sufficient to ensure that surface water does not pose a flood risk in the 1 in 100-year event plus climate change allowance. Proposals should make room for existing overland flow routes flowing through the application site and demonstrate no displacement of flood water to adjacent sites. This may require 2D surface water hydraulic modelling.

FULL PLANNING PERMISSION INCLUDING RESERVED MATTERS APPLICATIONS.

Applications for Full Planning Permission should provide certainty on a suitable drainage design that works within the proposed layout and to the standard required by legislation and best practice guidance documentation.

Conditions can be applied to a full application however only those that will not have an impact on the fundamentals of the drainage design will be considered for conditions. The provision of hydraulic calculations or geotechnical testing is not considered suitable for a condition.

Full Planning Applications should be considered to be a detailed design stage with the requirements listed in the table below as well as key elements from the outline design (if not already submitted as part of an outline application. Detailed design requirements are set out in this guide and the industry guidance document to the non-statutory technical standards for the design, maintenance and operation of SuDS.

Key tasks: Confirm detailed drainage design including drawings and calculations, maintenance roles and responsibilities and water quality provision.

Output: Drainage statement and / or Flood Risk Assessment to include the detailed design layout and assessment to support a detailed planning application.

DETAILED DRAINAGE STRATEGY	
Description:	Format:
Detailed Drainage Assessment A technical summary detailing any changes and key criteria agreed under an outline application must be provided	Report / Statement
Detailed Drainage Layout Drawings These must be at an appropriate scale (minimum 1/500), indicating catchment areas, referenced drainage features, manhole cover and invert levels and pipe diameters, lengths and gradients. (1)	Drawing(s)
Detailed Hydraulic Calculations Full network calculations are required for all rainfall events including the 1 in 1, 1 in 30, 1 in 100 year (plus climate change allowance) annual probability of occurrence. (2)	Calculations
Water Treatment Evidence that sufficient water treatment has been provided in accordance with the methodology in the Ciria SuDS Manual. (3)	Report / Statement
Exceedance Flows This should highlight the overland flow routes post development if the drainage system blocked to ensure that properties and key access / egress points are kept clear. If flooding is shown at the 1:100 + climate change storm, this should be highlighted on the plan with accurate extents and depths of any ponding shown.	Drawing(s)
Urban Creep Evidence that Urban Creep has been considered in the application and that a 10% increase in impermeable area has been used in calculations. (4)	Report / Statement.



Maintenance Maintenance schedules must be provided for each drainage feature type regardless of ownership. Confirmation of maintenance responsibilities / adoption will also be required. If features are to be adopted by third parties i.e. Highways Authority, Water Company etc, evidence will be required that they will accept the adoption. If adoption is still to be progressed, a fall back position needs to be identified in case the adoption of the drainage can not be agreed. (5)	Report / Statement
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Guidance notes:

- (1) The drainage features should have the same reference as those used in the hydraulic calculations.
- (2) Calculations should consider the hydraulic connectivity of the between the entire proposed drainage system, including the discharge allowance. The results should include the half-drain time for the 1 in 10year event and the 1 in 100year event (plus climate change allowance).
- (3) In accordance with the Ciria SuDS Manual C753 and using the Simple index Criteria (Box 26.2). If the methodology in the Design Manual for Roads and Bridges is used then the Simple Index Approach should also be assessed and the most onerous treatment requirements followed.
- (4) Urban Creep is only applicable for residential developments and excludes flats or apartments.
- (5) For larger/phased sites, we need to see evidence of measures taken to protect and ensure continued operation of drainage features during construction.