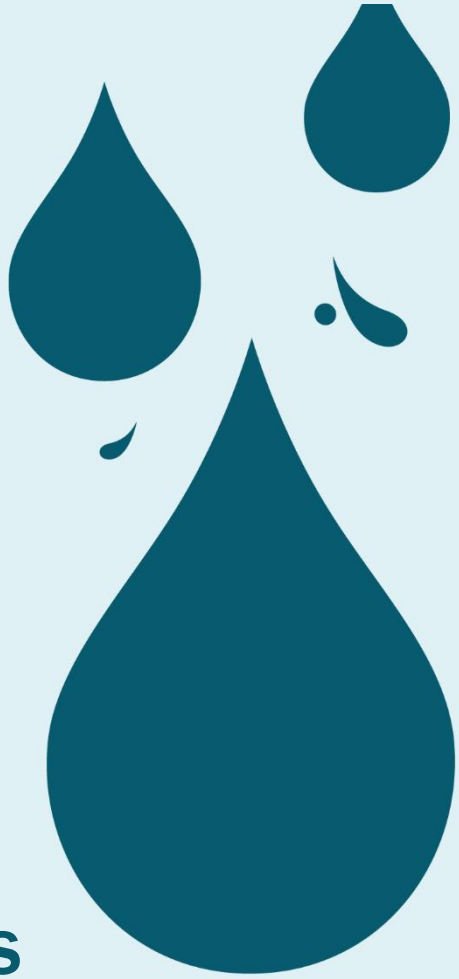
Planning Guidance for Developers

Catchment Management Plans & National Standards for SuDS



Hampshire County Council

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Notice

This document and its contents have been prepared by Hampshire County Council and is intended solely as information for Local Planning Authorities and Developers in Hampshire and should be used in relation to surface water drainage strategies and flood risk assessments.

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1. Aims and Objectives

This guidance is for anybody proposing to submit technical drainage information as part of a planning application for major development with surface water drainage. Local Planning Authorities (LPAs) may wish to review this guidance upon receipt of drainage details for major applications. It sets out how Hampshire County Council expects its Catchment Management Plan (CMP) policies and the National Standards for Sustainable Drainage Systems (SuDS) to be applied in practice. Please note that where there are contradictions between the National Standards and Local Policy, the more stringent requirements shall apply.

The Lead Local Flood Authority (LLFA) is the statutory consultee for surface water drainage for major development applications, as specified in Schedule 5 to the Town and Country Planning (Development Management Procedure) (England) Order 2015. Hampshire County Council is the LLFA for Hampshire.

Major development is defined by Part 1, Article 2 or the Order as meaning development involving any one or more of the following –

(a) the winning and working of minerals or the use of land for mineral-working deposits;
(b) waste development;
(c) the provision of dwellinghouses where –
    (i) the number of dwellinghouses to be provided is 10 or more; or
    (ii) the development is to be carried out on a site having an area of 0.5 hectares or more and it is not known whether the development falls within sub-paragraph (c)(i);
(d) the provision of a building or buildings where the floor space to be created by the development is 1,000 square metres or more; or
(e) development carried out on a site having an area of 1 hectare or more.

The level of detail required for supporting information varies depending on the type of planning application being made. For all applications it is critical to determine a suitable discharge method and location for surface water, and to set aside sufficient space in appropriate locations for sustainable drainage systems (SuDS).

1.1. How to use this document

This document is written to be a quick reference guide. More detailed support where needed on how to meet the requirements of the National Standards for SuDS and the CMP policies are covered by topic specific technical notes. These technical notes set out our expectations around specific elements i.e. modelling, flood compensation, infiltration testing and groundwater monitoring etc.

Section 1.2 table 1 sets out what CMP policies apply where. Chapter 2 give the surface water check list and document submission requirement. Detail guidance and submission examples are provided from Chapter 3 onwards.

1.2. Catchment Management Plans & Planning Policies

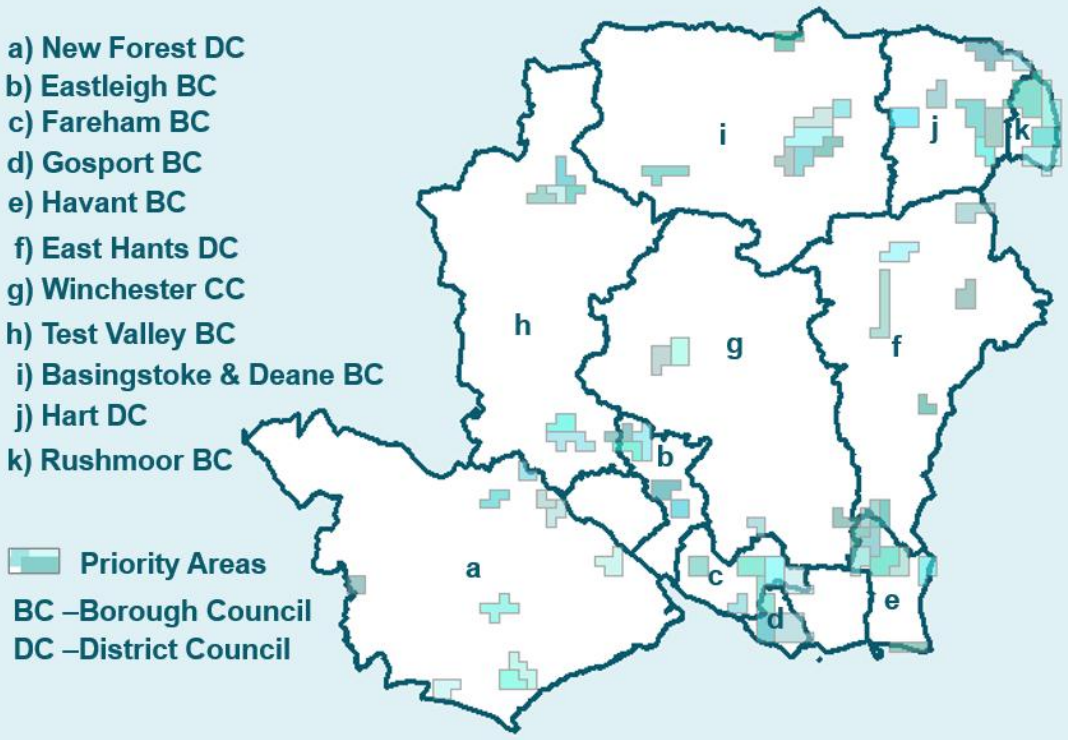
Hampshire County Council's Local Flood and Water Management Strategy[1&2] (LFWMS) updated and re-published in 2020, identified the need to produce a suite of 18 river basin Catchment Management Plans[3] (CMPs) which were published in June 2023.

The CMPs are a suite of strategic plans produced by Hampshire County Council which identify the 66 Priority Areas with highest flood risk in Hampshire and recommend 11 Flood and Water Management (FWM) policies that Hampshire County Council will employ in these areas. These policies set out how the County Council will undertake its Lead Local Flood Authority (LLFA) function within Priority Areas. Of the 11 policies within the CMPs,

[1] https://www.hants.gov.uk/landplanningandenvironment/environment/flooding/strategies/local-flood-risk-management-strategy
[2] Local Flood and Water Management Strategy are also known as Local Flood Risk Management Strategy.
[3] https://www.hants.gov.uk/landplanningandenvironment/environment/flooding/strategies/catchment-management-plans

policies 3-11 relate to standards that development within these areas will be expected to meet. This document sets out the practical application of these policies during the planning application process.

Figure 1– Priority Areas by Local Authority



Hampshire County Council has identified several priority areas through the Catchment Management Plans, where stricter standards apply for planning. The table below sets out when to consider each policy. Further detail on the policies can be found in the Catchment Management Plans (www.hants.gov.uk/catchment-management-plans), and the section on national and local policy in this document.

Table 1 - Where to apply Priority Area policies across Hampshire.

LLFA Catchment Management Plan Policy	Relevance for sites outside of Priority Areas	Relevance for sites inside Priority Areas
3. Pre-application assessment	Encouraged	Encouraged
4. Groundwater (monitoring)	Required for infiltration drainage proposals	Required for infiltration drainage proposals
4. Groundwater (flood risk)	Required for proposals in Environment Agency (EA) groundwater flood alert areas	Required for proposals in EA groundwater flood alert areas
5. Maintenance regime	Required	Required with enhancements
6. Verification reports	Not required	Required
7. Brownfield sites	Superseded by the National Standards for SuDS	Superseded by the National Standards for SuDS
8. Greenfield exceedance flows (surface water flood risk areas)	Required	Required
8. Greenfield exceedance flows (exceedance flow routes)	Required	Required
9. Minimum flow	Required	Required
10. Outfall	Required	Required
11. Limiting urban creep	Required	Required

1.3. National Standards for Sustainable Drainage Systems

In July 2025, the government published the National Standards for Sustainable Drainage Systems (SuDS). These provide information for designers, property developers, local authorities and set the standards new development is expected to meet in their planning applications. Planning applications within Hampshire will be expected to comply with the National Standards from January 2026.

There are seven standards that must be meet. The table below set out the sections in this document that relate to each of the national standards.

Table 2 – Guidance on applying the National Standards for SuDS.

Standard	Subject	Relevant section of this guidance
1	Runoff destinations	Table 4-submission requirements, Section 2.2 non-standard discharge destinations
2	Everyday rainfall (Interception)	Table 4-submission requirements, Technical Note interception guidance
3	Extreme rainfall and flooding	Table 4-submission requirements,
4	Water quality	Table 4-submission requirements,
5	Amenity	Table 4-submission requirements, Technical Note amenity and biodiversity guidance
6	Biodiversity	Table 4-submission requirements, Technical Note amenity and biodiversity guidance
7	Design (construction/ operation/ maintenance/ decommissioning and structural integrity)	Table 4-submission requirements, Technical Notes: maintenance plans, phasing plans and construction risks.

2. Surface Water Drainage Guidance

This guidance is provided to assist applicants with submitting the relevant surface water drainage information for the LLFA to assess as a statutory planning consultee. It has been developed with reference to:

- National Planning Policy Framework and Planning Practice Guidance
- National Standards for Sustainable Drainage Systems
- The SuDS Manual (Ciria C753)

A checklist is available, which should be completed and included with all surface water drainage submissions for major development proposals to ensure that all the required information has been provided by the applicant. The checklist differentiates between the level of information required for different types of planning application.

Further detail is provided in this guidance and the resources listed below.

Flood risk mapping:

- Flood map for planning – https://flood-map-for-planning.service.gov.uk/
- Long term flood risk mapping – https://www.gov.uk/check-long-term-flood-risk

Geology mapping:

- Infiltration SuDS map (British Geological Society) – https://www.bgs.ac.uk/datasets/infiltration-suds-map/

Infiltration testing:

- BRE DG 365 Soakaway design – https://www.brebookshop.com/details.jsp?id=327631
- CIRIA R156 Infiltration drainage – https://www.ciria.org/CIRIA/CIRIA/Item_Detail.aspx?iProductCode=R156&Category=BOOK

Climate change allowances:

- Peak rainfall allowances – https://environment.data.gov.uk/hydrology/climate-change-allowances/rainfall
- Using peak rainfall intensity allowances to assess surface water flood risk – https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances#using-peak-rainfall-intensity-allowances-to-assess-surface-water-flood-risk

Water quality:

- Simple index approach to assessing water quality management requirements – https://www.susdrain.org/files/resources/SuDS_manual_output/sia_tool_draft_26_locked_.xlsx

Flood Hazard:

- Flood Risk Assessment Guidance for new development – https://www.gov.uk/flood-and-coastal-erosion-risk-management-research-reports/flood-risk-assessment-guidance-for-new-development

General guidance:

- National Standards for Sustainable Drainage Systems – https://www.gov.uk/government/publications/national-standards-for-sustainable-drainage-systems

You must also consider the policies in the Local Plan for the LPA whose area you are planning to develop in.

Please note that where the LPA local plan policy or LLFA policies are more stringent than this guidance, local policy will take precedence.

Table 3 - Surface Water Drainage Checklist

Site Name		**Planning Ref.**	

Required Surface Water Drainage Information Most of this information should be included in a Flood Risk Assessment and Drainage Strategy document(s).	**Type of Planning Application**			**Checklist for Submission**	
	Outline Layout not fixed	**Reserved Matters/ Full** Layout fixed	**Discharge of Conditions**[4]	**Tick**	**Document Reference**
Existing Site Conditions					
Topographic survey plan	X	X			
Flood risk assessment/statement	X	X			
Evidence for developing in flood risk areas	X	X			
Assessment of existing drainage systems	X	X			
Assessment of existing runoff rates and volumes	X	X			
Assessment of existing surface water flow routes	X	X			
Site investigation report inc. testing/monitoring	X	X			
Initial Drainage Strategy					
Confirmation of a suitable discharge location	X				
Preliminary drainage strategy report	X				
Preliminary drainage layout plan (inc. easements)	X				
Preliminary hydraulic calculations	X				
Preliminary Phasing Plan (where appropriate)	X				
Interception Strategy	X				
Amenity and Biodiversity Strategy	X				
Detailed Drainage Strategy					
Confirmation of a suitable discharge location		X			
Detailed drainage strategy report/technical note		X			
Detailed drainage layout plan (inc. maintenance easements, amenity & biodiversity SuDS)		X			
Detailed hydraulic calculations		X			
Interception features and contributing area plan		X			
Interception storage assessment and calculations		X			
Agreement in principle for asset connection		X			
Water Quality		X			
Flood exceedance flow route plan		X			
SuDS management and maintenance details		X			
Construction Phasing Plan		X	X		
Verification report (for Priority Areas only)			X		
Biodiversity Statement (if required)		X			
Amenity Statement (if required)		X			
As-built drawings and GIS shape files			X		

Please see the following tables for further explanation of each item in the checklist.

[4] Where sufficient information has been provided to demonstrate a viable drainage proposal within the site layout, it may be possible for additional information to be provided by condition

Table 4- Submission Requirements Quick Reference

Existing Site Conditions	**Required for all submissions**
Required information:	**To include:**
Topographic survey plan	Site levels.
	Existing drainage features (including outside of the boundary particularly in relation to connecting watercourses adjoining the site).
Flood risk assessment/statement (Planning Practice Guidance)	Extents of flood risk areas and flow routes (considering all sources of flooding) including those from offsite locations.
	Assessment of the flood risk vulnerability of the proposed development and its suitability in relation to the flood risk at the site. Development must be steered to areas of lowest risk and a sequential approach taken in relation to layout. There should be no impediment to flow paths and areas at risk of flooding (from all sources) must be avoided.
Evidence for built development in flood risk areas	Site specific modelling may be required to demonstrate more accurate extent of flood risk if development considered in areas shown at risk from national modelling., e.g. updated flood risk modelling results using an appropriate methodology. Refer to the flood modelling technical note.
	Appropriate mitigation, e.g. flood compensation areas (see technical note).
Assessment of existing drainage systems (National Standards for SuDS 3.39.2)	Locations, dimensions, and condition assessments of existing drainage features.
	Extents of existing drainage catchments including a downstream assessment of the discharge point to confirm continuity beyond the site.
	Standing water levels in watercourses (risk of submerged outfalls). Modelling the drainage system with a submerged outfall may be required where frequently submerged outfalls are likely e.g. tidal, groundwater flooding prone watercourses etc. For Main Rivers, the Environment Agency may be able to advise on peak levels.
Assessment of pre-development runoff rates and volumes (National Standards for SuDS 3.26, 3.31)	Greenfield runoff rates and volumes for the following storm events: • 1 in 100 years (1% AEP) • 1 in 30 years (3.3% AEP) • 1 in 2 years (approximately Qbar) • 1 in 1 year (100% AEP)
	Discharge volumes should be calculated using the 1 in 100 6-hour storm (National Standards for SuDS 3.19).
	An appropriate statistical method should be used
Site investigation report (National Standards for SuDS 1.15,1.17, 3.11, 3.14, 3.39.2, 4.16.1)	Borehole logs showing geology.
	Results of sufficient infiltration testing (three successive tests) at the depth and location of any proposed infiltration features in accordance with BRE365. The lowest rate achieved at each test location must be used for the drainage design.
	Results of groundwater monitoring undertaken at suitable locations and depths across the site to demonstrate a suitable unsaturated zone. Monitoring must be undertaken to capture the likely peak groundwater level and timings will vary depending on the geology i.e. chalk sites are expected to have peak levels between January and May, river terrace deposits are likely to have peak levels between November and February. Please see infiltration testing and groundwater monitoring technical note for additional details.

Initial Drainage Strategy	**Where layout is not fixed[5]**
Required information:	**To include:**
Confirmation of a suitable discharge location	Consideration of the hierarchy of drainage options: 1) Collect for re-use; 2) into the ground (infiltration); 3) to a surface water body; 4) to a surface water sewer; 5) to a combined sewer NOTE: Foul sewers, highway drainage systems and deep-bore soakaways are not appropriate locations for new surface water discharges.
	Evidence of additional permissions and capacity checks for discharge locations outside of the site, or that rely on adopted infrastructure. Ownership of asset must be identified.
	Evidence for an alternative drainage strategy must be provided if insufficient information is available for the preferred drainage strategy.
Preliminary drainage strategy	A written surface water drainage strategy with references to drawings and calculations that is compliant with policy, demonstrating that the site can be suitably drained without increasing the risk of flooding. Identification of area of the site at risk of flooding from any source.
Preliminary drainage layout plan (National Standards for SuDS 3.6)	A surface water drainage layout showing drainage features of sufficient capacity, in appropriate locations with due regard to flood risk areas, topography, and connectivity to discharge locations.
	The full drainage network must be included for planning applications where the layout is fixed.
	Consideration for easements / access arrangements must be provided to demonstrate there will be access to SuDS features and watercourses for maintenance.
	Culverting of watercourses must be restricted to where access is required only, and consent sought from the relevant authority.
	Existing surface water flow routes should be maintained through the site.
Preliminary Phasing Plan	Where a development is proposed to be phased, a plan should be provided indicating the likely phases, interconnectivity in relation to the drainage, and any requirements for specific drainage to be constructed in specific orders. Where a development is proposed to be phased, a plan should be provided indicating the likely phases, interconnectivity in relation to the drainage, including flow rate assessment / distribution and any requirements for specific drainage to be constructed in specific orders.

[5] If your development layout is fixed, you must follow the detailed drainage strategy list.

Preliminary drainage calculations (National Standards for SuDS 3.3 - 3.9).	Hydraulic calculations produced using industry-standard software, demonstrating a suitable storage estimate and that post-development runoff rates and volumes (where appropriate) do not exceed pre-development runoff rates and volumes (where appropriate) for the following storm events: • 1 in 100 years (1% AEP) • 1 in 30 years (3.3% AEP) • 1 in 2 years (approximately Qbar) • 1 in 1 year (100% AEP)
	Appropriate climate change allowances for peak rainfall intensity should be applied to the 1 in 30 year and 1 in 100-year storm events.
	Appropriate climate change allowances for peak rainfall intensity should be applied to the 1 in 30 year and 1 in 100-year storm events.
	Uncontrolled discharge rates will only be accepted where the discharge is directly into the sea or large tidal estuary.
Interception, Amenity and Biodiversity Strategy	Provide a table assessing which SuDS options are viable for interception, amenity, and biodiversity. This should confirm that some provision for all three benefits is feasible. The final SuDS selection can be provided at detailed design. Where there are planning exemptions that means biodiversity or amenity will not be provided, these should be stated. See the related technical notes for more details.

Detailed Drainage Strategy	**Where layout is fixed**
Required information:	**To include:**
Confirmation of a suitable discharge location	Consideration of the hierarchy of drainage options: 1) Collect for re-use; 2) into the ground (infiltration); 3) to a surface water body; 4) to a surface water sewer; 5) to a combined sewer NOTE: Foul sewers, highway drainage systems and deep-bore soakaways are not appropriate locations for new surface water discharges.
	Evidence of additional permissions and capacity checks for discharge locations outside of the site, or that rely on adopted infrastructure. Ownership of asset must be identified.
	Evidence for an alternative drainage strategy must be provided if insufficient information is available for the preferred drainage strategy.
Detailed drainage strategy/ Technical Note	A detailed written surface water drainage strategy with references to drawings and calculations that is compliant with policy, demonstrating that the site can be suitably drained without increasing the risk of flooding. In addition to the above, reserved matters applications should provide a technical note summarizing what was agreed at outline, any overarching phasing plans, and how this application fits with the wider site drainage.
Detailed drainage layout plan	A detailed surface water drainage layout showing a full drainage network of sufficient capacity, in appropriate locations with due regard to flood risk areas, overland flow routes and connectivity to discharge locations considering final site levels.
	A plan showing flooded extents and depths managed effectively within the site, where they exist for the 1 in 100-year storm event.
	Easements or access provision must be provided to retain access to SuDS features and watercourses for maintenance with sufficient information provided to demonstrate maintenance can be undertaken appropriately. Designs must consider access requirements for maintenance machinery (e.g. basin slopes).
	Culverting of watercourses must be restricted to where access is required only, and consent sought from the relevant authority. Please review our consenting guidance at www.hants.gov.uk/changewatercourse for more information. Please note, consent is a separate process from planning, and the granting of a planning application does not guarantee that ordinary watercourse consent will be granted.
Detailed hydraulic calculations (National Standards for SuDS 3.3 - 3.9, 3.32-3.37).	Detailed hydraulic calculations produced using industry-standard software, the most up-to-date rainfall data, demonstrating sufficient capacity in the drainage network and that post-development runoff rates and volumes (where appropriate) do not exceed pre-development runoff rates and volumes (where appropriate) will be managed in accordance with the minimum requirements of the national standards. Simulation results should be presented for the following storm events: • 1 in 100 years (1% AEP) • 1 in 30 years (3.3% AEP) • 1 in 2 years (approximately Qbar) • 1 in 1 year (100% AEP)

	Appropriate climate change allowances for peak rainfall intensity must be applied to the 1 in 30 year and 1 in 100-year storm events. Peak rainfall allowances must be applied in accordance with the location of the site and the design life of the development.
	Appropriate allowances for urban creep must be applied to all impermeable areas within residential curtilages (excluding flats and apartments).
	The drainage network should be sized to contain all contributing permeable and impermeable areas.
	Any flooding anticipated for the 1 in 100 storm event plus a peak rainfall climate change allowance must be demonstrated to be safely managed within the site. Flooding of buildings, utility plants, or safe access and escape routes will not be accepted.
Interception (National Standards for SuDS- Standard 2)	Provide a plan with interception features, associated contributing areas, and design parameters. Include calculations proving interception storage for the full impermeable area and any contributing permeable areas. Interception must be able to store 5mm rainfall. Hand calculations are usually sufficient; complex sites may use modelling. See the rainfall interception technical note for more information.
Agreement in principle for asset connection (National Standards for SuDS 1.20,1.28)	If draining to a third-party asset (e.g. adopted sewer), obtain agreement in principle from the asset owner and submit this with the application. A capacity check will identify the maximum discharge rate however we will still require greenfield equivalent rates regardless of additional capacity being available within the sewer.
Water Quality (National Standards for SuDS 4.1 – 4.8, 7.16)	An assessment of the pollution hazard of the development and proposed mitigation offered by the SuDS features using the methodology in the SuDS Manual C753 unless stated otherwise in local plans). SuDS treatment trains are expected as standard.
	Evidence of manufacturer's technical specifications if proprietary treatment systems (items not listed in the simple index approach tables) are proposed.
	Discharge to the foul sewer will only be accepted where justified by pollution risks. See pollution prevention for businesses.
	Potential pollution/ water quality impacts during blockage, pump failures scenarios etc should also be identified.
Flood exceedance flow route plan (National Standards for SuDS 3.6, 3.38 – 3.40, 7.3, 7.16).	A plan showing how exceedance flows will be managed appropriately through the site when the capacity is exceeded and mimic the pre-development situation. Blockage and pump failure risks should be considered and managed.
	Details of how flow routes are prevented from entering buildings, such as road camber and kerbs, and finished floor levels of buildings.
	Temporary flooding of roads or recreational areas etc should consider the risks during flooding and rehabilitation post flooding. Road flooding should be no greater than **low hazard** as per FD2320/TR2 and should not pose a risk to identified safe access and egress routes.
Existing flood routes through site National Standards for SuDS 3.6, Principal 8	Offsite floodwater from events up to a 1-in-100-year probability, as indicated by the surface water flood map or LLFA data, must be safely routed through the site. This routing should avoid increasing flood risk or interfering with the site's drainage system and must be shown on a plan. If interaction with the proposed drainage system cannot be avoided, appropriate mitigation measures must be implemented.

SuDS management and maintenance details (National Standards for SuDS 4.5.1 & 4.10, 7.8) Standard 7	A schedule of maintenance tasks, to include descriptions, frequencies, role of the drainage system, design life/replacement frequencies of components and the responsible parties for maintaining each part of the drainage system (including any adoption agreements) and any watercourses is required. This should identify features prone to blockage and actions to take if blockages or a pollution incident occurs. Rehabilitation requirements following a flood.
	A plan showing where different parties have responsibility for maintaining SuDS and watercourses, including easements. Colour coding by maintenance responsibilities is recommended. See the maintenance plan technical note.
	A construction phasing plan (drawing) is required to address construction risks where drainage systems serve different parts of the site and are implemented at different times. The plan must also include remediation measures to ensure the drainage system meets its intended design condition before the development is occupied. It should be clear how the drainage system will be protected during construction and include temporary drainage where proposed.
Verification report in Catchment Priority Areas	A statement written by a suitably qualified person that confirms the adequacy and quality of the installed drainage system. Qualification to be listed.
	Survey evidence such as CCTV surveys of pipe networks and invert levels of control structures.
	Photographs in situ, as-built drawings, and hydraulic calculations for the installed drainage system. Design changes during construction must be shown not to impact drainage performance.
	A summary of any works affecting watercourses.
	GIS shapefile of the red line boundary with as-built drainage plans.
As built details outside a Priority Area	Provide via planning condition as-built drawings for the drainage system and a GIS shapefile of the red line boundary.
Amenity Statement (Standard 5- National Standards for SuDS)	Where public access is involved, SuDS should also offer amenity. Use LPA landscape guidance, landscape character assessments, green infrastructure strategies, design policies and design codes to inform design. See the amenity and biodiversity technical note for more information.
	Label amenity features on drainage drawings
	Explain the amenity provision via a SUDS section in the Design and Access Statement.
	If amenity isn't practical or required by LPA policy, state the reason.
Biodiversity Statement. (Standard 6- National Standards for SuDS)	SuDS should support biodiversity. SuDS should be a means for delivering already required biodiversity value. This is not an additional biodiversity requirement. See the amenity and biodiversity technical note for more information.
	Label biodiversity supporting SUDS features on drainage plans.
	Provide a section within the biodiversity statement demonstrating the suitability of the SUDS design for supporting biodiversity.
	If not feasible (e.g. a biodiversity provision is not required by LPA policy or National Policy), justify in the biodiversity statement.

2.1. Additional Requirements

The following guidance relates to specific types of application or development.

Table 5 – Requirements by application type

Pre-application advice	Pre-application advice on surface water drainage matters is available from the LLFA for a fee. Benefits of seeking pre-application advice for surface water drainage can include a meeting with the LLFA to discuss the proposals in relation to the site constraints and opportunities, a review of historic flooding incidents, and a written summary of advice to consider when making a planning application.
Solar farms	Solar farms introduce impermeable panels elevated over ground which normally remains vegetated. Studies have shown that any increase in runoff rates and volumes is marginal when compared to greenfield sites. The most important factors for ensuring that runoff rates do not increase are maintenance of the vegetated cover beneath the panels and preventing compaction of the soil. A maintenance plan should be provided detailing how soil compaction during construction and operation will be minimised. A linear drainage feature at the lower boundary of any site should also be implemented to intercept any additional runoff. If this information is provided in a CEMP, this should be clearly indicated.
Minerals and waste sites	Suitable surface water drainage provisions must be incorporated in minerals and waste developments. A phasing plan would be required for the lifetime of the development including restoration, showing that flood risk will not be increased during each phase. Consideration must also be given to existing groundwater flows through the site and how the fill material may impact these flows once the site is restored. The site should be restored so that the drainage catchments are representative of the undeveloped site. If this information is provided in a CEMP, this should be clearly indicated.
Larger phased sites (National Standards for SuDS Principle 11 & 7.8)	Where development sites are to be progressed in distinct phases, there is an additional requirement to confirm allowable discharge rates for surface water from each phase. Phased developments must meet all the National Standards for each phase and for the development as a whole. Where phases are divided further into parcels, allowable discharge rates should be confirmed for each parcel. This particularly applies where strategic SuDS serving the wider development are proposed. It is recommended that runoff rates should be restricted to Qbar generally. Phased management plans will be required to cover construction risks.

2.2. Guidance on non-standard discharge locations

Table 6 – Non-Standard discharge location guidance

Re-use of runoff (National Standards for SuDS 1.11 -1.12)	Rainwater harvesting should be used for non-potable or irrigation needs and meets interception storage requirements if it contains a 1-in-1-year storm or greater. Designs should be in accordance with BS EN 16941 and chapter 11 of the CIRIA SUDS Manual. Sufficient attenuation must be provided for the volume of runoff from the design storm in addition to any capacity reserved for re-use. The additional storage does not need to be provided within a rainwater harvesting system. Overflow must drain to a suitable discharge location in accordance with LLFA requirements.
Discharges to deep-bore soakaways (National Standards for SuDS 1.9, 1.18, 3.17,4.17)	Hampshire County Council generally opposes the use of Deep-bore soakaways. They are not considered to follow a SuDS approach. Deep-bore soakaways are considered unsustainable due to maintenance issues, uncertainty in determining performance and pollution risks. Deep-bore soakaways should be a last resort and only allowed by exception. • Developers must exhaust all other drainage options, including extending the sewer network and pumping to avoid deep features. • Prohibited where on contaminated land, where a change in flow regime could impact protected habitats or where they pose risks to groundwater or abstraction sites. • Falling head tests must be undertaken at varying depths to demonstrate the earliest opportunity to achieve the required infiltration. • In-situ testing to be undertaken as part of installation to verify infiltration rates and provide verification • Deep-bore soakaways must be at the minimum depth possible. • Multiple shallower boreholes are preferred to fewer deeper borehole to disperse the discharge and add resilience. • Borehole capacity cannot be counted toward surface water storage to keep bore depths to a minimum. • Evidence will be required to demonstrate a suitable separation from the highest likely groundwater level. • Designs should apply a safety factor of 10 due to unreliable infiltration rates. Higher factors of safety must not be used to justify deeper features. • They are unsuitable for individual homes to maintain due to the need for specialist knowledge or equipment. • Additional information will be required in relation to maintenance, enhanced silt removal (in addition to standard treatment obligations) and provisions for long term maintenance / replacement. • Pollution containment measures are required to manage pollution incident risks. • Proposals must include an Environment Agency approved groundwater risk assessment.
Discharges to surcharged outfalls (National Standards for SuDS 3.39.2)	Where a discharge to a watercourse may be inhibited due to the outfall being surcharged, hydraulic calculations should be provided showing that no flooding occurs on the development site. This may require additional attenuation storage, and other mitigation measures such as non-return valves may be necessary. This includes flood locking due to groundwater flooding, longer duration fluvial events and high tides etc.
Pumped discharges	A pumped discharge of runoff may be acceptable where a site cannot be drained by gravity. Additional considerations should include emergency pump failure mitigation measures, such as backup pumps, generators or additional attenuation storage, and must also consider the maintenance requirements of the additional infrastructure.
Discharges to highway drainage systems	Discharges to an adopted highway drainage system are not permitted.
Discharges to the foul sewer (National Standards for SuDS 4.8)	New discharges to the foul sewer are not acceptable to the LLFA. Exceptions may include where there is an existing surface water drainage connection to a foul sewer and betterment is proposed by reducing the discharge rate. Or where the use poses a serious pollution risk as identified by pollution prevention for businesses. Connection permissions from water companies should be evidenced. Flow rates must still be agreed. Areas discharged must be the minimum possible.

3. Local Policy

3.1. Catchment Management Plans (CMPs)

The National Planning Policy Framework (NPPF) and the supporting Planning Practice Guidance (PPG) link strategic flood risk plans produced by the Environment Agency (EA) and the LLFA to the planning process.

LFWMS (also known as Local Flood Risk Management Strategies) are required to be considered at the planning application stage by paragraphs 165-175 of the NPPF, paragraph 040 of the Planning Practice Guidance and Principle 7 of the National Standards for SuDS.

Local policies relating to flood risk and surface water drainage may be found in the Local Plans and Minerals and Waste Plans of LPAs.

LLFA policies relating to surface water drainage in planning may be found in the Local Flood and Water Management Strategy (LFWMS). This includes policies specific to proposed development in Priority Areas, identified through the LFWMS Catchment Management Plans as areas at increased risk of flooding.

The Catchment Management Plan policies, National Standards for SuDS and Local Plan policies should be considered at every stage of the planning process.

Policy 3: Pre-Application Assessment Policy

'In prioritised areas of the catchment where major development is due to take place, Hampshire County Council will make it best practice that a pre-application assessment is sought by the developer for the surface water management features of any proposed development.'

Pre-application advice on surface water drainage matters is available from the LLFA for a fee. Benefits of seeking pre-application advice for surface water drainage can include a meeting or site visit with the LLFA to discuss the proposals in relation to the site constraints and opportunities, a review of historic flooding incidents, and a written summary of advice to consider when making a planning application. Principles 4 and 8 of the National Standards for SuDS encourages early engagement and consideration of site drainage.

Policy 4: Groundwater Policy

'In prioritised areas of the catchment where major development is due to take place, Hampshire County Council will ensure that the most up to date and site-specific data pertaining to the risk of groundwater flooding is used.'

Locally high groundwater levels can prevent the use of infiltration drainage features due to the possible reduction in capacity and the risk of directly contaminating the groundwater. Infiltration drainage features should be designed so that an unsaturated depth of one metre is retained beneath the base when groundwater levels reach their seasonal peak (National Standards for SuDS paragraph 1.15 and 4.16.1). The seasonal peak should be determined by monitoring groundwater levels through the winter period (National Standards for SuDS 3.11).

Where development is proposed in an area at risk of flooding from groundwater, additional assessment may be required to demonstrate the risk and impact of a groundwater flooding situation. This may require consideration of additional drainage features to provide appropriate flow/volume control and water quality management to ensure that the risk of groundwater contamination or ingress into foul/combined sewers is kept sufficiently low (National Standards for SuDS 1.17 and 3.39.2). It may be prudent to provide sufficient pollution mitigation for a discharge to ground, even when a discharge to a watercourse is proposed. Further consideration of exceedance flood flow routes and surcharged outfalls (flood locking) may be required.

Policy 5: Maintenance Regime Policy

'In prioritised areas of the catchment where major development is due to take place, Hampshire County Council will ensure that the Local Planning Authority only approve new developments that sufficiently demonstrate that a rigorous maintenance regime will be implemented for their surface water management systems.'

Surface water drainage systems for new developments must be maintained in perpetuity to ensure their continued effectiveness in draining the development site. A maintenance plan detailing a schedule of maintenance, and the responsible party for the maintenance, is required through planning conditions in accordance with the National Standards for SuDS paragraphs 7.10-11. The maintenance plan should incorporate details for all the proposed surface water drainage features, taking current best practice guidance into account and include how the drainage features will be managed during construction. Consideration of access for visual inspection and maintenance to drainage features (easement, basin slopes, etc) should be given, especially where there is a blockage or pollution risk (National Standards for SuDS 7.16.1 and 7.12). See table 3 and the maintenance plan technical note for more details on what is required.

Policy 6: Verification Reports Policy (within Priority Areas)

'In prioritised areas of the catchment where major development is due to take place, Hampshire County Council will ensure that the Local Planning Authority requests verification reports from developers when construction is completed.'

A verification report planning condition may be requested by the LLFA to ensure that the surface water drainage system is constructed and installed as agreed during the design stage. The verification report would be produced by an independent and a suitably qualified person, who can be present to witness and record the construction and installation of the drainage system. Evidence that the drainage system has been constructed and installed in accordance with the approved plans would then be submitted to the LLFA to support the discharge of the relevant condition. Survey evidence such as post-completion CCTV surveys of pipe networks, installed levels and sizing of control structures is likely to be required. A summary of any works affecting watercourses is also required. The verification report should be accompanied by as-built drawings Any deviations from the originally approved plans must be highlighted and suitable justification provided. See table 4 for more details.

Policy 7: Brownfield Sites Policy

Since this policy was published, the National Standards for SuDS have been introduced. They set stricter requirements for brownfield sites and runoff rates and so take precedence over Policy 7.

'In prioritised areas and critical contributing areas of the catchment where major brownfield development is due to take place, Hampshire County Council will make it best practice that a 50% betterment of surface water run-off rates is demonstrated for the surface water management features of any proposed development.'

Brownfield sites are those which have previously been developed, and as such are likely to have existing impermeable areas contributing to a greater runoff rate from the site than would be expected for a greenfield site or equivalent size. To provide betterment when developing brownfield sites, it is best practice to calculate the existing runoff rate for the site and reduce that rate by 50% when designing the surface water drainage system for the developed site. For some situations, such as the change of use of an existing building that mostly fills the available space within its plot, a reduction in runoff rate may not be practicable and this will be taken into consideration by the LLFA.

Please note that brownfield sites located outside of Priority Areas and Critical Contributing areas are also encouraged to reduce runoff rates below existing levels.

Policy 8: Greenfield Exceedance Flows Policy

'In prioritised areas of the catchment where major greenfield development is due to take place, where surface water management is a cause of significant concern, Hampshire County Council will make it best practice for LPAs to request hydraulic modelling of surface water exceedance flows movement and management on the new development.'

Exceedance flood flow routes must be considered for the pre-developed site to understand the possible impact on flood risk to the site and neighbouring areas (National Standards for SuDS 7.3). A review of the EA Risk of Flooding from Surface Water mapping for the site location would show whether there are any continuous surface water flood flow routes through the site. Development should then be situated in the lowest risk areas, and any development proposed in higher risk areas will require further evidence of the suitability of the proposals, e.g. updated flood risk modelling results.

Exceedance flood flow routes must also be considered for the developed site. A layout plan should be annotated with flow direction arrows showing where runoff would be directed to in the event of a storm that exceeds the design capacity of the drainage system, or if the drainage system has failed. Flows should be directed away from buildings on-site and off-site and should generally follow the same routes as for the pre-developed site. The plan should be detailed enough to determine that the risk to buildings remains low, but not so detailed that the general direction of flow is unclear. Potential pollution/ water quality impacts during blockage, pump failures scenarios etc should also be identified (National Standards for SuDS 7.16). See table 3 for more details.

Please note that there may be occasional circumstances for sites outside of Priority Areas where hydraulic modelling to prove the flood risk suitability of a development is required.

Policy 9: Minimum Flow Policy

'In prioritised areas of the catchment where development which requires attenuation on site with restricted outfalls is due to take place, Hampshire County Council will make it best practice for LPAs to request a minimum flow rate of 2l per second from the outfall.'

To reduce the risk of blockages caused by obstructions to the discharge point of a surface water drainage system, it is a requirement that discharge rates from new development sites must not be less than two litres per second (2 l/s) (National Standards for SuDS 3.10). Exceptions may apply where a flow control device has sufficient protection measures built into it, or where the outfall is immediately downstream of a permeable paved area with no possibility of debris entering the system. The minimum allowable orifice size for the flow control would then be 50mm diameter, or 20mm where the upstream SuDS component is permeable paving (National Standards for SuDS 3.22). Please note that this policy applies to all of Hampshire, not just sites within Catchment Priority Areas.

Policy 10: Outfall Policy

'In prioritised areas of the catchment where development is due to take place on sites where infiltration is not viable either through infiltration rates, groundwater levels and/or policy/best practice restrictions, Hampshire County Council will advise LPAs to refuse any development on sites with no alternative demonstrable outfall.'

The LLFA will maintain an objection to a proposed development with no demonstrable outfall for the surface water drainage system. Potential discharge locations should be considered in order of sustainability, i.e. by first investigating re-use, then shallow infiltration to ground, followed by a restricted discharge to a watercourse and then a surface water sewer (Standard 1- National Standards for SuDS).

Infiltration will only be considered viable where infiltration rates are above 1 x 10 -6 m/s (National Standards for SuDS 3.15) and peak groundwater levels are at least 1m below the base of the infiltrating features (National

Standards for SuDS 1.15). Combined sewers should only be considered as a last resort. The owner of the drainage asset may have requirements for maximum allowable discharge rates. A capacity check should be undertaken when proposing to connect to a sewer, to prove that it is a viable discharge location. Discharges to a watercourse may require additional permissions. Infiltration to the ground through deep-bore soakaway structures should not be considered, as this does not mimic natural drainage processes. Please see table 6 on deep-bore soakaways. Foul sewers should also not be considered as a discharge location for surface water.

Due to severe water stress in Hampshire, water reuse should be considered for non-potable or irrigation needs. If the site isn't zero-discharge for a 1-in-100-year storm, a suitable outfall must be provided.

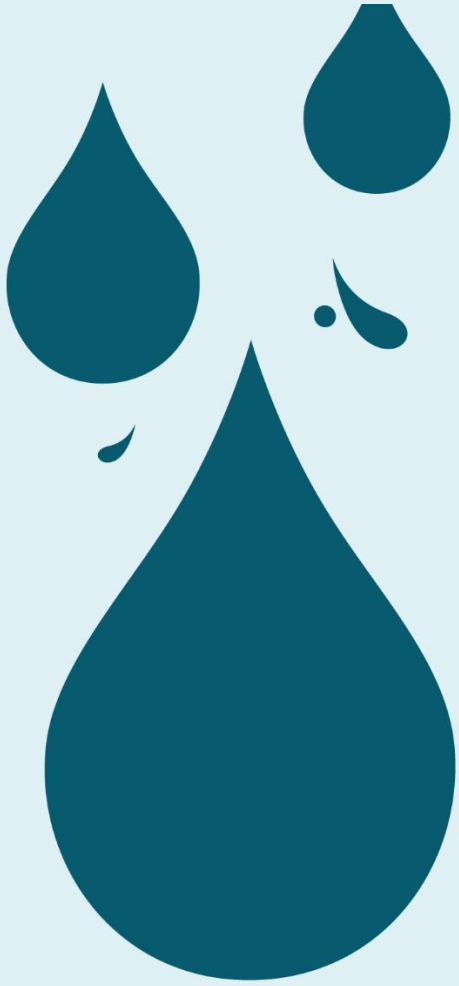
Please note that this policy is likely to be applied across all of Hampshire, even for sites that are not within Priority Areas.

Policy 11: Limiting Urban Creep

'In residential areas of the catchment HCC will liaise with the Local Planning Authorities to limit permitted development rights regarding the paving or covering of permeable surfaces with impermeable surfacing.'

Urban creep should be considered when designing the surface water drainage system for a development in all parts of Hampshire (National Standards for SuDS 3.1). Parts of a development, particularly areas of residential housing, are likely to increase in impermeable area over time, usually through extensions and driveways. A 10% increase in impermeable area should be considered for parts of the development dedicated to residential housing. The increase does not need to be applied to roads or to buildings that are unlikely to be extended, such as blocks of flats (National Standards for SuDS 3.33). LPAs should promote the permitted development rules regarding paving front gardens where appropriate[6] within Priority Areas.

[6] https://www.planningportal.co.uk/permission/common-projects/paving-your-front-garden/planning-permission



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