Local Standards & Guidance

for Major Development with Surface Water Drainage

v.2.0, June 2026

OXFORDSHIRE COUNTY COUNCIL

Lead Local Flood Authority

Contents

1. Introduction 1
2. The LLFA as a Statutory Consultee 1
3. Relevant Policy and Best Practice Guidance 1
4. Consulting the LLFA 2
5. Pre-Application Advice 2
6. Other Approvals, Permissions and Consents 2
7. Roles & Responsibilities 3
8. Local Standards for Sustainable Drainage Systems 5
9. Advice on Local and National Planning Policy and Guidance 7
10. Surface Water Drainage Checklist 7
11. Additional Requirements for Other Application Types 16
12. Standard Conditions 18

Disclaimer

The Local Standards & Guidance for Major Development with Surface Water Drainage document has been written to reflect national policy, standards and guidance, and will be updated as necessary to remain current.

The LLFA reserves the right to provide consultation comments that may be accepting of deviations from the requirements of this document as necessary, if sufficient justification has been provided to the LLFA.

For more information on this document, please contact:
LLFAPlanningService@oxfordshire.gov.uk

Version History

Version	Date	Amendments
1.0	November 2018	First publication
1.1	October 2018	Update to local standards
1.2	December 2021	Update to local standards
2.0	June 2026	Full revision following publication of updated National Standards for SuDS (2025)

1. Introduction

Oxfordshire County Council, as the Lead Local Flood Authority (LLFA), has produced this guidance for developers[1] for the submission of surface water drainage information as supporting evidence for major planning applications.

This document sets out what is required from the applicant for the LLFA to provide a substantive consultation response through the planning system. It must be read in conjunction with the National Standards for Sustainable Drainage Systems[2] published in June 2025.

2. The LLFA as a Statutory Consultee

The LLFA is a statutory consultee for major development proposals with surface water drainage, as per Schedule 4 of the Town and Country Planning (Development Management Procedure) (England) Order 2015[3]. Major development is defined by Article 2 of the Order as 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.

3. Relevant Policy and Best Practice Guidance

This document provides guidance on local requirements for surface water drainage systems. Best practice guidance, including CIRIA C753 'The SuDS Manual'[4], should also be considered when designing surface water drainage systems.

Applicants must consider the requirements of the National Planning Policy Framework (NPPF)[5], Planning Practice Guidance (PPG)[6], and the National Standards for Sustainable Drainage Systems[2] when designing surface water drainage systems. The Local Planning Authority (LPA) sets local planning policies which may also influence the requirements for the surface water drainage proposals.

[1] https://www.oxfordshirefloodtoolkit.com/planning/developers/
[2] https://www.gov.uk/government/publications/national-standards-for-sustainable-drainage-systems
[3] https://www.legislation.gov.uk/uksi/2015/595/contents
[4] https://www.ciria.org/CIRIA/CIRIA/Item_Detail.aspx?iProductCode=C753F
[5] https://www.gov.uk/government/publications/national-planning-policy-framework--2
[6] https://www.gov.uk/government/collections/planning-practice-guidance

4. Consulting the LLFA

As a statutory consultee, the LLFA must respond to consultations within 21 days of being consulted if the comments are to be considered by the LPA prior to determining the application.

If insufficient information has been provided by the applicant prior to the first consultation, further consultation will be necessary for the review of any additional submitted information. This extends the time required to provide a substantive response.

All consultation responses from the LLFA are reliant on the accuracy of the information that has been submitted by the applicant that is available at the time of responding. All information is to be submitted to the LPA, rather than directly to the LLFA.

5. Pre-Application Advice

It is recommended that the LLFA pre-application advice service[7] is utilised if the applicant requires additional guidance on submitting the necessary information. This is a chargeable service which allows the applicant to request written advice, a meeting, and site visit to discuss their proposals in more detail.

If an applicant requests pre-application advice from the LPA, the LLFA may be consulted and will respond to any requests with standing advice, rather than the bespoke advice that would be provided using the LLFA's pre-application advice service.

6. Other Approvals, Permissions and Consents

Planning proposals that affect ordinary watercourses may require Land Drainage Consent under the Land Drainage Act 1991[8], in addition to any planning approval. Planning approval does not guarantee that Land Drainage Consent applications will be successful. For further information, please contact the Drainage team at the Local Planning Authority. Works on or near to a main river may require a permit from the Environment Agency[9].

Consultation responses from the LLFA do not reflect the position of Oxfordshire County Council as the Highway Authority, or as any other authority. Any drainage systems that are to be offered to the Highway Authority for adoption will need to also be approved by the Highway Authority[10]. Any drainage systems that are to be offered to the water company for adoption will need to also be approved by the water company. Evidence of such approvals should be provided, along with evidence of a

[7] https://www.oxfordshire.gov.uk/transport-and-travel/street-maintenance-z/flooding/pre-application-flood-advice
[8] https://www.legislation.gov.uk/ukpga/1991/59/section/23
[9] https://www.gov.uk/guidance/flood-risk-activities-environmental-permits
[10] https://www.oxfordshire.gov.uk/transport-and-travel/transport-policies-and-plans/section-38-and-section-278

right to drain to a watercourse or adopted drainage system via third party land, if applicable.

7. Roles & Responsibilities

Lead Local Flood Authority (LLFA)

The LLFA is a statutory consultee for major development with surface water drainage, providing technical advice to the LPA.

Local Planning Authorities (LPAs)

LPAs prepare Local Plans for the strategic development requirements in their area:

Cherwell District Council
- https://www.cherwell.gov.uk/homepage/26/planning-policy

Oxford City Council
- https://www.oxford.gov.uk/planning-policy

South Oxfordshire District Council
- https://www.southoxon.gov.uk/south-oxfordshire-district-council/planning-and-development/local-plan-and-planning-policies/

Vale of White Horse District Council
- https://www.whitehorsedc.gov.uk/vale-of-white-horse-district-council/planning-and-development/local-plan-and-planning-policies/

West Oxfordshire District Council
- https://www.westoxon.gov.uk/planning-and-building/planning-policy/

Oxfordshire County Council
- https://www.oxfordshire.gov.uk/residents/environment-and-planning/planning/planning-policy/minerals-and-waste-policy

LPAs consult on and determine planning applications and carry out enforcement against unauthorised development. LPAs may publish additional guidance on surface water drainage requirements. As the authority is also a risk management authority, there is a duty to co-operate and share information to reduce flood risk.

Outside of planning, as land drainage authorities with delegated powers, these authorities can issue land drainage consents for works on ordinary watercourses.

Environment Agency (EA)

The EA are consulted on applications for work in or within 20m of a main river, and development in areas within Flood Zone 2 and 3, and notified areas with critical drainage problems. The EA also issue environmental permits for works on or near to main rivers independently of the planning process.

Guidance on EA requirements for planning is available here:
- https://www.gov.uk/guidance/flood-risk-assessment-local-planning-authorities

Sewerage Undertakers

The sewerage undertaker assesses proposals for adoptable drainage independently of the LLFA surface water drainage review. The LLFA assesses whether the drainage hierarchy has been considered by the applicant, and whether a capacity check has been undertaken and permission for connection sought.

Guidance on Anglian Water requirements for planning is available here:

- https://www.anglianwater.co.uk/developing/

Guidance on Severn Trent Water requirements for planning is available here:

- https://www.stwater.co.uk/building-and-developing/overview/

Guidance on Thames Water requirements for planning is available here:

- https://www.thameswater.co.uk/developers

Highway Authority

The Highway Authority assesses proposals for adoptable highway drainage independently of the LLFA surface water drainage review.

Guidance on Oxfordshire County Council Highways requirements for planning and adoption is available here:

- https://www.oxfordshire.gov.uk/residents/roads-and-transport/transport-policies-and-plans/transport-new-developments/transport-development
- https://www.oxfordshire.gov.uk/residents/roads-and-transport/transport-policies-and-plans/section-38-and-section-278

Guidance on National Highways requirements for planning and adoption is available here:

- https://nationalhighways.co.uk/our-roads/planning-and-the-strategic-road-network-in-england/

Internal Drainage Board (IDB)

The IDB may comment on applications where development may impact IDB watercourses/land drainage. The IDB also issues land drainage consents in its area.

Guidance on Bedford Group requirements for planning is available here:

- https://www.idbs.org.uk/consent-planning/

Canal & River Trust

The Canal & River Trust are consulted on applications where development is likely to affect its inland waterways or reservoirs, or any feeder channel, watercourse, let off or culvert.

Guidance on Canal & River Trust requirements for planning is available here:

- https://canalrivertrust.org.uk/specialist-teams/planning-and-design/our-statutory-consultee-role

8. Local Standards for Sustainable Drainage Systems

All proposed surface water drainage strategies must be developed with consideration given to the National Standards for Sustainable Drainage Systems, available here:

- https://www.gov.uk/government/publications/national-standards-for-sustainable-drainage-systems

The following local variations to the National Standards must also be considered.

Standard 1: Runoff destinations

- Part 1.6.1 of the National Standards will not apply. The LLFA will not construct and maintain new flood risk management works to obtain a right to discharge on behalf of an applicant.
- Part 1.11 of the National Standards will apply. Oxfordshire is in an area identified as seriously water stressed.
- Part 1.14.1 of the National Standards will not apply. A site investigation is required to determine whether infiltration drainage is appropriate.

Standard 2: Management of everyday rainfall

- Part 2.6.1 of the National Standards will not apply. The LLFA will expect to see evidence in accordance with Part 2.6.2 instead.
- Part 2.6.2 of the National Standards will apply. An assessment of interception will be considered in accordance with part 2.7 of the National Standards.

Standard 3: Management of extreme rainfall and flooding

- Part 3.8 of the National Standards requires the Upper End Allowance to be used based on the design lifetime of the development. Alternatively, the central allowance may be used for development with a design lifetime of less than 100 years, in accordance with the national guidance available at: https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances#using-peak-rainfall-intensity-allowances-to-assess-surface-water-flood-risk
- Part 3.9 of the National Standards will not apply. There are no above ground surface water bodies that can accommodate uncontrolled surface water discharges without any associated environmental impact in Oxfordshire.
- Parts 3.18 and 3.19 of the National Standards will apply, except where the demonstrated capacity of the receiving watercourse or sewer limits the allowable discharge rate to the equivalent 50% AEP greenfield runoff rate. If there is any doubt, then the 50% AEP greenfield runoff rate should be used.
- Part 3.20 of the National Standards will apply, except where the demonstrated capacity of the receiving watercourse or sewer limits the allowable discharge rate to the equivalent 1% AEP greenfield runoff rate. If there is any doubt, then the 1% AEP greenfield runoff rate should be used.

- Part 3.21.1 of the National Standards requires the pre-developed (or brownfield) runoff rate relaxation factor to be no greater than 5 times the greenfield runoff rate if greenfield runoff rates cannot be achieved. To clarify, this refers to the 50% AEP greenfield runoff rate.
- Part 3.29 of the National Standards will apply pro rata, therefore the greenfield runoff rate and volume estimated for the whole site area should be applied proportionally to the developable area to be drained.
- Part 3.32 of the National Standards will apply so that:
    - Cv values of 1 for roofs and paved areas.
    - MADD factor and additional storage in the system are set to zero.
    - Maximum rainfall rate is set to the highest possible value.
    - FEH22 rainfall data to be used for design calculations.
    - FSR sensitivity check required for 1 in 1 year storm event.
    - FSR sensitivity check required for 15 and 30 minute storm durations.
    - Winter and summer storm durations of 15 to 10080 minutes to be used.

Standard 4: Water quality

- Part 4.6 of the National Standards requires wider consultation by the applicant and LPA, as the LLFA may not be best positioned to provide comments specific to this part of the standard.
- Part 4.7 of the National Standards will apply, however it is expected that the provision of SuDS can ensure adequate treatment of the runoff for most sites.

Standard 5: Amenity

- Parts 5.3.1, 5.5, 5.6, and 5.7 of the National Standards require wider consultation by the applicant and LPA, as the LLFA may not be best positioned to provide comments specific to these parts of the standard.

Standard 6: Biodiversity

- Parts 6.2 through 6.8 of the National Standards require wider consultation by the applicant and LPA, as the LLFA may not be best positioned to provide comments specific to these parts of the standard.

Standard 7: Design of drainage for construction, operation, maintenance, decommissioning and structural integrity

- Parts 7.4, 7.5, 7.6, 7.20, 7.21, 7.22, 7.25, 7.26, 7.27 and 7.28 of the National Standards require wider consultation by the applicant and LPA, as the LLFA may not be best positioned to provide comments specific to these parts of the standard.

9. Advice on Local and National Planning Policy and Guidance

The LPA considers the risk of flooding from all sources when writing local plans and determining planning applications, which includes the application of the sequential and exception tests where necessary. This is to ensure that flood risk is not increased either to the application site or elsewhere, as a result of the proposed development. Evidence of this must be provided in a flood risk assessment for sites of one hectare or more in area, and for sites shown to be at risk of flooding.

The LLFA, as a statutory consultee, provides advice on sustainable drainage systems provided as part of proposals for major development. The LLFA can also advise on whether a sequential approach has been applied for the siting of the development, and will respond to consultation requests from the LPA for advice on surface water flood risk and other local flood risks. For fluvial flood risk (designated by Flood Zones 2 and 3), the Environment Agency is the appropriate consultee.

10. Surface Water Drainage Checklist

When submitting a major planning application in the Oxfordshire area, please consider the following checklist and accompanying explanatory information when providing surface water drainage details. This will help the LLFA to assess the proposals more efficiently by reducing the number of requests for additional information.

Oxfordshire County Council LLFA – Surface Water Drainage Checklist

Site Name		Planning Ref.				
Surface Water Drainage Information for Submission		**Type of Planning Application**			**Checklist for Submission**	
		Outline	**Full / Reserved Matters**	**Discharge of Conditions**	**✓**	**Document Reference**
1. Site plans • Site location plan • Topographic survey plan • Site layout plan		✓	✓	✓		
2. Flood risk assessment • Flood risk mapping • Vulnerability classification • Sequential approach to layout • Flood modelling report* • Flood mitigation requirements*		✓	✓	✓		
3. Existing drainage details • Existing drainage systems • Catchments and flow routes • Estimation of runoff rates		✓	✓	✓		
4. Ground investigation report • Borehole logs • Infiltration testing results • Groundwater monitoring results		✓	✓	✓		
5. Preliminary drainage strategy • Identified discharge location • Written drainage strategy • Drainage layout plan • Hydraulic calculations		✓				
6. Detailed drainage strategy • Identified discharge location • Written drainage strategy • Drainage layout plan • Hydraulic calculations • Interception drainage • Exceedance flow routing • Water quality • Amenity considerations • Biodiversity considerations • Maintenance arrangements			✓	✓		
7. Verification report • Verification statement • Survey report and photos • As-built drawings • As-built hydraulic calculations • Management arrangements				✓		

*If required

1. Site Plans	
Required information:	**To include:**
Site location plan	A plan that identifies the application site in context with the wider area, showing the scale it was drawn to and the direction of North.
Site topographic survey plan	A plan showing site levels and existing natural and constructed drainage features, including those abutting the site where possible.
Site layout plan	A plan that identifies the proposed locations for developable areas and drainage features.

2. Flood Risk Assessment[11]	
Required information:	**To include:**
Flood risk mapping[12]	Plans showing the extents of flood risk areas and flow routes, considering all sources of flooding.
Vulnerability classification[13]	A statement of flood risk vulnerability classifications for the different types of development proposed on the site.
Sequential approach to layout[14]	A plan showing that development (including drainage features) is prioritised in the areas at lowest risk of flooding, with consideration given to vulnerability classification[15].
Flood modelling report[16] (if required)	A report demonstrating that existing flood risk models are overstating flood risk, using results from an appropriate modelling methodology as evidence.
Flood mitigation requirements (if required)	An explanation of how flood risk will be appropriately mitigated for, e.g. raised finished floor levels, hydraulically linked level for level and volume for volume flood compensation areas.

[11] https://www.gov.uk/guidance/flood-risk-assessment-for-planning-applications
[12] https://flood-map-for-planning.service.gov.uk/map
[13] https://www.gov.uk/guidance/national-planning-policy-framework/annex-3-flood-risk-vulnerability-classification
[14] https://www.gov.uk/guidance/flood-risk-and-coastal-change#the-sequential-approach-to-the-location-of-development
[15] https://www.gov.uk/guidance/flood-risk-and-coastal-change#para77
[16] https://www.gov.uk/guidance/using-modelling-for-flood-risk-assessments

3. Existing Drainage Details	
Required information:	**To include:**
Existing drainage systems	A plan showing the location of existing natural and constructed drainage features, giving information on their dimensions and general condition.
Catchments and flow routes	A plan showing the area used for calculating the existing runoff rate, extents of drainage catchments, and any flow routes through the site.
Estimation of runoff rates	Calculations for the estimation of existing greenfield (or brownfield if applicable) runoff rates and volumes for the following storm events: • 1 in 100 years (1% AEP) • 1 in 30 years (3.3% AEP) • 1 in 2.3 years (Qbar) or 1 in 2 years (Qmed) • 1 in 1 year (100% AEP)

4. Ground Investigation Report	
Required information:	**To include:**
Borehole logs	Representative borehole logs from across the site showing the geology and any constraints to infiltration drainage, e.g. high groundwater levels, dissolution features, contamination.
Infiltration testing results	Results of sufficient infiltration testing at the location and depth of any proposed infiltration features. Tests should be undertaken three times in succession, with the lowest rate recorded used for design at that location. Refer to BRE DG 365[17], CIRIA R156[18].
Groundwater monitoring results	Results from monitoring for the maximum likely groundwater level, to a depth of at least one metre below the depth of any proposed infiltration features. The time of year that groundwater peaks may vary depending on the geology and rainfall amounts. Monitoring programmes must record the rise and fall of groundwater levels to determine the peak level.

[17] https://bregroup.com/store/bookshop/soakaway-design-dg-365-2016-download
[18] https://www.ciria.org/CIRIA/CIRIA/Item_Detail.aspx?iProductCode=R156

5. Preliminary Drainage Strategy	
Required information:	**To include:**
Identification of a suitable discharge location[19]	Consideration of the hierarchy of drainage options: 1) collected for non-potable use; 2) into the ground (infiltration); 3) to a surface water body; 4) to a surface water sewer; 5) to a combined sewer Evidence of additional permissions and capacity checks must be provided for discharge locations outside of the site, on third party land, or that rely on adopted infrastructure. Foul sewers and highway drainage systems are not appropriate locations for new surface water discharges. The use of deep-bore soakaways is by exception only, despite their reliance on infiltration. Evidence for an alternative drainage strategy must be provided if insufficient information is available for the proposed drainage strategy.
Written drainage strategy	A written surface water drainage strategy including references to drawings and calculations that is compliant with policy, demonstrating that the site can be suitably drained without increasing the risk of flooding. Reference should be made to quantity and quality of water, amenity and biodiversity.
Drainage layout plan	A surface water drainage layout plan showing drainage features of sufficient capacity and at suitable levels, in appropriate locations with due regard given to flood risk areas, topography, and connectivity to discharge locations. The culverting or diversion of watercourses should be restricted to where access is required only, and consent sought from the relevant authority. De-culverting of watercourses is supported where viable.

[19] https://www.gov.uk/government/publications/national-standards-for-sustainable-drainage-systems/national-standards-for-sustainable-drainage-systems-suds#standard-1-runoff-destinations

Hydraulic calculations[20]	Hydraulic calculations produced using industry-standard software, demonstrating a suitable storage estimate and that post-development runoff rates and volumes do not exceed pre-development runoff rates and volumes for the following storm events: • 1 in 100 years (1% AEP) • 1 in 30 years (3.3% AEP) • 1 in 2.3 years (Qbar) or 1 in 2 years (Qmed) • 1 in 1 year (100% AEP) Hydraulic calculations must use the following values: • Latest FEH22 rainfall to be used for 1 in 1, 30 and 100 year storm events • FSR sensitivity check for 1 in 1 year storm event, and 15, 30 minute storms for all return periods • Greenfield runoff rates as Qbar or Qmed (ICP SuDS, FEH) • Storm durations from 15 minutes to 10080 minutes (summer and winter) • Cv values of 1 • Maximum rainfall threshold to be set at maximum possible value • MADD factor and pipe network storage volume set to 0 Appropriate climate change allowances for peak rainfall intensity should be applied for the 1 in 30 year and 1 in 100-year storm events. Infiltration features must drain down half their volume within 24 hours for storm events up to the 3.3% AEP event, with mitigation provided for slower half-drain times during larger events. An appropriate allowance for urban creep must be applied to the proposed developable area.

[20] https://www.gov.uk/government/publications/national-standards-for-sustainable-drainage-systems/national-standards-for-sustainable-drainage-systems-suds#standard-3-management-of-extreme-rainfall-and-flooding

6. Detailed Drainage Strategy	
Required information:	**To include:**
Identification of a suitable discharge location[21]	Consideration of the hierarchy of drainage options: 1) collected for non-potable use; 2) into the ground (infiltration); 3) to a surface water body; 4) to a surface water sewer; 5) to a combined sewer Evidence of additional permissions and capacity checks must be provided for discharge locations outside of the site, on third party land, or that rely on adopted infrastructure. Foul sewers and highway drainage systems are not appropriate locations for new surface water discharges. The use of deep-bore soakaways is by exception only, despite their reliance on infiltration. Evidence for an alternative drainage strategy must be provided if insufficient information is available for the proposed drainage strategy.
Written drainage strategy	A written surface water drainage strategy including references to drawings and calculations that is compliant with policy, demonstrating that the site can be suitably drained without increasing the risk of flooding. Reference should be made to quantity and quality of water, amenity and biodiversity.
Drainage layout plan	A surface water drainage layout plan showing drainage features of sufficient capacity and at suitable levels, in appropriate locations with due regard given to flood risk areas, topography, finished floor levels, and connectivity to discharge locations. A plan showing the depth and extent of flooding to be managed effectively within the site, where it occurs for the 1 in 100-year storm event. Easements of 3 metres in width must be provided to retain access to SuDS features and watercourses for maintenance.

[21] https://www.gov.uk/government/publications/national-standards-for-sustainable-drainage-systems/national-standards-for-sustainable-drainage-systems-suds#standard-1-runoff-destinations

	The culverting or diversion of watercourses should be restricted to where access is required only, and consent sought from the relevant authority. De-culverting of watercourses is supported where viable.
Hydraulic calculations[22]	Hydraulic calculations for the full drainage network produced using industry-standard software, demonstrating that the required storage is available and that post-development runoff rates and volumes do not exceed pre-development runoff rates and volumes for the following storm events: • 1 in 100 years (1% AEP) • 1 in 30 years (3.3% AEP) • 1 in 2.3 years (Qbar) or 1 in 2 years (Qmed) • 1 in 1 year (100% AEP) Hydraulic calculations must use the following values: • Latest FEH22 rainfall to be used for 1 in 1, 30 and 100 year storm events • FSR sensitivity check for 1 in 1 year storm event, and 15, 30 minute storms for all return periods • Greenfield runoff rates as Qbar or Qmed (ICP SuDS, FEH) • Storm durations from 15 minutes to 10080 minutes (summer and winter) • Cv values of 1 • Maximum rainfall threshold to be set at maximum possible value • MADD factor and pipe network storage volume set to 0 Appropriate climate change allowances for peak rainfall intensity should be applied for the 1 in 30 year and 1 in 100-year storm events. Infiltration features must drain down half their volume within 24 hours for storm events up to the 3.3% AEP event, with mitigation provided for slower half-drain times during larger events. An appropriate allowance for urban creep must be applied to the impermeable areas within residential curtilages (excluding flats and apartments).

[22] https://www.gov.uk/government/publications/national-standards-for-sustainable-drainage-systems/national-standards-for-sustainable-drainage-systems-suds#standard-3-management-of-extreme-rainfall-and-flooding

Interception drainage[23]	Evidence that the management of everyday rainfall (first 5mm) does not result in surface runoff from the site.
Exceedance flow routing	A plan showing how surface water flows will be managed appropriately through the site when the capacity of the surface water drainage system is exceeded, and how exceedance flows are prevented from entering buildings, e.g. adjustments to road camber and kerbs, finished floor levels of buildings.
Water quality[24]	An assessment of the pollution hazard of the development and proposed mitigation offered by the SuDS features. Evidence of manufacturer's technical specifications is required if proprietary treatment systems (items not listed in the simple index approach tables) are proposed.
Amenity considerations[25]	A statement on how the proposed drainage strategy maximises benefits for amenity.
Biodiversity considerations[26]	A statement on how the proposed drainage strategy maximises benefits for biodiversity.
Maintenance arrangements[27]	A schedule of maintenance tasks, to include descriptions, frequencies, and the responsible parties for maintaining each part of the drainage system (including any adoption agreements) and any watercourses is required. A plan showing where different parties have responsibility for maintaining SuDS and watercourses, including easements. Details of how drainage features will be protected during the construction period.

[23] https://www.gov.uk/government/publications/national-standards-for-sustainable-drainage-systems/national-standards-for-sustainable-drainage-systems-suds#standard-2management-of-everyday-rainfall-interception

[24] https://www.gov.uk/government/publications/national-standards-for-sustainable-drainage-systems/national-standards-for-sustainable-drainage-systems-suds#standard-4-water-quality

[25] https://www.gov.uk/government/publications/national-standards-for-sustainable-drainage-systems/national-standards-for-sustainable-drainage-systems-suds#standard-5-amenity

[26] https://www.gov.uk/government/publications/national-standards-for-sustainable-drainage-systems/national-standards-for-sustainable-drainage-systems-suds#standard-6-biodiversity

[27] https://www.gov.uk/government/publications/national-standards-for-sustainable-drainage-systems/national-standards-for-sustainable-drainage-systems-suds#standard-7-design-of-drainage-for-construction-operation-maintenance-decommissioning-and-structural-integrity

7. Verification Report	
Required information:	**To include:**
Verification statement	A statement written by a suitably qualified person that confirms the adequacy and quality of the installed drainage system.
Survey report and photos	Survey evidence such as CCTV surveys of pipe networks and invert levels of control structures, and photographs of drainage features being installed. A summary of works affecting watercourses should be provided if appropriate.
As-built drawings	As-built drawings to include plans and cross sections for the surface water drainage network, particularly where site constraints have resulted in notable alterations from the original approved drawings.
As-built hydraulic calculations	As-built calculations for the surface water drainage network, particularly where site constraints have resulted in notable alterations from the original approved calculations.
Management arrangements	An updated SuDS management plan, to include the contact details for the party responsible for ongoing maintenance of the drainage system.

11. Additional Requirements for Other Application Types

Minor and non-major development

The LLFA is the statutory consultee for major development with surface water drainage only. No comments will be provided by the LLFA for applications proposing other types of development, however LPAs may refer to this guidance when reviewing submissions for minor and non-major development.

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 site visit, and a written summary of advice.

Change of use

There are no requirements to alter the surface water drainage system for a site when a change of use is proposed that does not require alterations to the structure of a building or impermeable area. It is important to determine whether the change of use increases the flood risk vulnerability of the development, and whether an increase in flood risk vulnerability is appropriate relative to the flood risk to the site.

EIA screening and scoping requests

The LLFA does not comment on the requirement for an environmental impact assessment (EIA) or the scope of the assessment. Flood risk assessments are often included as appendices to EIA documents and the content of these may be reviewed. The LLFA would normally include standing advice in the response, in anticipation of any future 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 may be marginal when compared to undeveloped 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. Note that any ancillary buildings and hardstanding will require formal drainage.

Adopted Local Plan designated sites

For strategic sites, the principle of development has effectively been confirmed as acceptable. The LLFA will consider these sites with a presumption that outline permission is forthcoming. The risk of flooding will be assessed in case of any updates to the flood risk mapping for the development site area since the relevant SFRA was undertaken.

Phased sites

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. 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 from individual phases should all be restricted to Qbar if this information cannot be provided.

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 for 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.

Retrospective planning applications

Retrospective planning applications should provide sufficient information to show that suitable provisions are in place for surface water drainage in accordance with LLFA requirements. If this cannot be demonstrated, the LLFA would object until suitable drainage details are provided.

12. Standard Conditions

A decision notice for an approved planning application will usually include a condition that lists approved plans, which the development must be carried out in accordance with.

Approved Plans

> *The development hereby permitted shall be carried out in accordance with the drawings and other documents listed on this decision letter, and any drawings approved subsequently by [the LPA] as local planning authority pursuant to any conditions on this decision letter.*

If any drainage documentation submitted for planning is to be recommended by the LLFA for inclusion on the list of documents following this condition, it must be acceptable in whole, suitable for construction use and entirely within the remit of the LLFA. Issues may arise where a drainage strategy document also includes foul drainage elements, or details that should be approved through Land Drainage Consent. It may not be appropriate to approve documents in whole for these reasons unless there is support from all other relevant consultees.

A compliance condition may be appropriate for full applications that demonstrate an acceptable detailed drainage strategy. This would be proposed for applications where sufficient drainage information has been provided to allow the LLFA to confirm the suitability of all aspects of the drainage design.

Surface Water Drainage – Compliance

> *The surface water drainage system shall be implemented in accordance with the approved drainage design documentation prior to the first use of the development.*
>
> - *Document 1*
> - *Document 2*
> - *Etc.*
>
> *Reason: To ensure that the development does not increase flood risk.*

For most outline and full planning applications where it has been proven that the site can be effectively drained, but further detailed surface water drainage information is required, a pre-commencement condition is appropriate. Any parts of the condition that are not relevant to a particular application may be removed in the response.

Surface Water Drainage – Detailed Design

No development shall take place [for each phase] until a detailed surface water drainage strategy for the site, based on sustainable drainage principles, has been submitted to and approved in writing by the local planning authority. The strategy should include but not be limited to:

a. *An updated detailed surface water drainage strategy, or a technical summary of any changes made to the original drainage strategy.*
b. *A phasing plan demonstrating that the strategic drainage system serving any part of the development will be constructed and operational prior to the construction of the remainder of that development phase.*
c. *The results of infiltration testing undertaken in accordance with BRE 365 or similar best practice guidance at the location and depth of proposed infiltration features.*
d. *The results of groundwater level monitoring at depths of at least one metre below the bases of proposed infiltration features to determine the likely maximum groundwater level, usually during the winter/spring period.*
e. *Detailed surface water drainage plans clearly demonstrating the type, layout, dimensions and catchments of drainage features, to include direct references to the hydraulic calculations report.*
f. *Detailed surface water drainage hydraulic calculations demonstrating that:*
    - *runoff rates for the developed site will not exceed the equivalent greenfield runoff rates (or no greater than five times the greenfield runoff rate should a relaxation factor need to be applied) for all storm events up to the 1% AEP event,*
    - *infiltration features drain down half their volume within 24 hours for storm events up to the 3.3% AEP event, with mitigation provided for slower half-drain times during larger events,*
    - *no surcharging occurs for the 50% AEP event,*
    - *no flooding occurs for storm events up to the 3.3% AEP event plus an appropriate climate change allowance for peak rainfall,*
    - *any flooding occurring for the 1% AEP event plus an appropriate climate change allowance for peak rainfall is managed appropriately within the site,*
    - *impermeable areas within residential curtilages (excluding flats) have been increased by 10% to approximate the effect of urban creep.*
g. *A plan showing that exceedance flood flow routes do not adversely affect the proposed development if the surface water drainage system fails.*
h. *An assessment of how the proposed SuDS features will mitigate the pollution hazard posed by the development, in accordance with the simple index approach outlined in CIRIA C753 The SuDS Manual.*
i. *Details for the long-term maintenance arrangements for the surface water drainage system, to include details of protection measures during construction, and maintenance schedules and plans showing liability for each part of the completed drainage system.*

j. *Details of accessible easements of at least three metres in width adjacent to watercourses and proposed drainage features on or abutting the site to allow access for maintenance.*

Reason: To ensure that the development does not increase flood risk.

Once the detailed drainage design has been approved, it is important to ensure that its implementation on site is undertaken in accordance with those approved details. It is also important to record any adjustments to the drainage system, which may be required due to unforeseen constraints on site.

SuDS Verification Report

No occupation of the development shall take place until a surface water drainage verification report has been submitted to and approved in writing by the local planning authority. The report should include but not be limited to:

a. *A summary of any design changes to the approved surface water drainage system (including updated calculations if required),*
b. *evidence of any adoption agreements (if applicable),*
c. *dated photographs documenting the construction and installation of the drainage system,*
d. *as-built drawings of the drainage system, to include invert levels,*
e. *a CCTV survey report for the completed drainage system,*
f. *an updated SuDS management plan, to include the contact details for the party responsible for ongoing maintenance of the drainage system.*

SuDS shall then be managed in accordance with the approved SuDS management plan, with any changes required to the plan agreed with the Local Planning Authority prior to implementation.

Reason: To ensure that the development does not increase flood risk.

Informative notes may be used to encourage applicants to consider other implications of the development proposals, such as works affecting ordinary watercourses. Note that the EA is responsible for issuing environmental permits for works on or near to main rivers.

<u>Land Drainage Consent Informative</u>

Please note that any works affecting an ordinary watercourse may require prior consent under section 23 of the Land Drainage Act 1991 in addition to any planning permission. Land Drainage Consent is administered by [named authority] under relevant powers delegated by the LLFA. Note that the granting of planning permission does not guarantee that consent will be given for any works on ordinary watercourses.