

To:	Jemma Foster	From:	Drainage (Cecily Austin)
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Planning App Ref:	PL/2026/04290
Service Ref:	Drainage
Date:	25/08/2026

PROPOSAL

Discharge of Conditions 8 (Parameter Levels Plan), 9 (Surface Water), 26 (Travel Plan), 32 (Hard and Soft Landscaping) & 35 (External Lighting) of planning application 19/11459/OUT

SITE LOCATION

Elm Grove Farm, Drynham Road, Trowbridge, BA14 0PL

APPLICATION DOCUMENTS REVIEWED

- Flood Risk Assessment Addendum
- 1960_010_C_SMP_P2 SuDS Maintenance & Management Plan
- 1955_1114E_Trowbridge_Enclosures Plan
- 1960_2141-TA1_GULLY CATCHMENT AREA PLAN-SHEET 1
- 1960_2142-TA1_GULLY CATCHMENT AREA PLAN-SHEET 2
- 1960_2143-TA1_GULLY CATCHMENT AREA PLAN-SHEET 3
- 1960_2144-TA1_GULLY CATCHMENT AREA PLAN-SHEET 4
- 1960_2145-TA1_GULLY CATCHMENT AREA PLAN-SHEET 5
- 1960_2146-TA1_GULLY CATCHMENT AREA PLAN-SHEET 6
- 1960_2501_C1_DRAINAGE LAYOUT
- 1960_2502_C1_DRAINAGE LAYOUT
- 1960_2503_C1_DRAINAGE LAYOUT
- 1960_2504_C1_DRAINAGE LAYOUT
- 1960_2505_C1_DRAINAGE LAYOUT
- 1960_2506_C1_DRAINAGE LAYOUT
- 1960_2511_TA4 S104 DRAINAGE LAYOUT
- 1960_2521-TA1_SURFACE WATER DRAINAGE LONGSECTIONS-SHEET 1
- 1960_2522-TA1_SURFACE WATER DRAINAGE LONGSECTIONS-SHEET 2
- 1960_2540-TA2_SURFACE WATER DRAINAGE MANHOLE SCHEDULES
- 1960_2571_C1 PRIVATE DRAINAGE CONSTRUCTION DETAILS
- 1960_2572_C1 PRIVATE DRAINAGE CONSTRUCTION DETAILS
- 1960_2573_C1 PRIVATE DRAINAGE CONSTRUCTION DETAILS
- 1960_2593-TA1_OWC DITCH CULVERT AND IMPROVEMENT WORKS LAYOUT
- 1960_2594-TA2_OWC DITCH CULVERT AND IMPROVEMENT WORKS SECTIONS
- 1960_2594-TA3_OWC DITCH CULVERT AND IMPROVEMENT WORKS SECTIONS
- 1960_2595-TA1_WETLAND BASIN 2 SECTION
- 1960_2596-TA1_WETLAND BASIN 3
- 1960_2597-TA1_WETLAND BASIN 3 SECTION - SHEET 1
- 1960_2598-TA1_WETLAND BASIN 3 SECTION - SHEET 2
- 1960_2721-TA1_HIGHWAYS SPECIFICATION LAYOUT-SHEET 1
- 1960_2722-TA1_HIGHWAYS SPECIFICATION LAYOUT-SHEET 2
- 1960_2723-TA1_HIGHWAYS SPECIFICATION LAYOUT-SHEET 3

- 1960_2724-TA1_HIGHWAYS SPECIFICATION LAYOUT-SHEET 4
- 1960_2725-TA1_HIGHWAYS SPECIFICATION LAYOUT-SHEET 5
- 1960_2726-TA1_HIGHWAYS SPECIFICATION LAYOUT-SHEET 6
- 1960_3501_TA2_DRAINAGE LAYOUT SHEET 1
- 1960_3502_TA2_DRAINAGE LAYOUT SHEET 2
- 1960_3503_TA2_DRAINAGE LAYOUT SHEET 3
- 1960_3721-TA1_HIGHWAY SPECIFICATION LAYOUT
- 1960_3722-TA1_HIGHWAY SPECIFICATION LAYOUT
- 1960_3723-TA1_HIGHWAY SPECIFICATION LAYOUT
- 1960_3724-TA1_HIGHWAY SPECIFICATION LAYOUT
- 1960_3725-TA1_HIGHWAY SPECIFICATION LAYOUT
- 1960_3726-TA1_HIGHWAY SPECIFICATION LAYOUT
- Flood Risk Assessment & Drainage Strategy - Main Report (19/11459/OUT)
- Flood Risk Assessment & Drainage Strategy - Appendices E-G (19/11459/OUT)
- Flood Risk Assessment & Drainage Strategy - Appendices C-D (19/11459/OUT)
- Flood Risk Assessment & Drainage Strategy - Appendices A-B (19/11459/OUT)
- Masterplan (19/11459/OUT)
- Network Rail (19/11459/OUT)
- Parameter Plan Levels (19/11459/OUT)

ASSESSMENT OF THE PROPOSAL

Context

PL/2026/03917 relates to a schedule of conditions from 19/11459/OUT.

Drainage matters are relevant to Condition 9, which are considered below:

9. No development shall commence until a scheme for discharge of surface water from the site, including sustainable drainage systems, exceedance flow routes and all third party approvals, has been submitted to and approved in writing by the Local Planning Authority/Lead Local Flood Authority. This scheme shall include a programme of phasing, implementation and maintenance for the lifetime of the development. The development shall be carried out in accordance with the approved details.

REASON: To comply with Core Policy 67: Flood Risk within the Wiltshire Core Strategy (adopted January 2015) and to ensure that the development can be adequately drained without increasing flood risk to others.

Assessment

The applicant has submitted drainage and construction information in support of the discharge of Condition 9. All submitted drawings and documents listed within the accompanying schedule have been reviewed and should be read alongside this response.

The development is understood to comprise three phases, with this submission relating only to Phases 2 and 3. Phase 1 has not been assessed as part of this review.

Following review of the submitted information, a number of outstanding matters remain which currently prevent the discharge of Condition 9.

1. Hydraulic Modelling and Drainage Calculations

The only hydraulic calculations submitted are those contained within Appendix C of the Flood Risk Assessment Addendum, dated 29.08.2024. No updated hydraulic calculations have been submitted as part of this condition discharge application, nor are any included within the submitted document schedule.

The calculations included within the Addendum appear to be based on an earlier iteration of the drainage design and do not fully correspond with the 2025 drainage proposals currently submitted. For example, Wetland Basin 4 is shown with different dimensions and discharge rates to those indicated on the latest drainage drawings.

Whilst the 2024 calculations have been reviewed to provide preliminary feedback and avoid unnecessary delays, they cannot be relied upon to support the discharge of this condition.

1.1 Additional information required

Updated hydraulic modelling, reflecting the current drainage design, will be required to enable full validation of the proposed drainage strategy.

In accordance with Standard 3 of the National Standards for SuDS, the drainage strategy must be supported by hydraulic calculations.

2. Preliminary review of modelling

2.1 Points Under Agreement

The proposed outfall rates are based on QBAR. Wiltshire Council's current policy requires greenfield developments to achieve a 30% betterment over existing runoff rates and volumes, and the original calculations do not demonstrate compliance with this requirement.

However, it is acknowledged that a previous agreement was reached with the applicant in 2019, whereby discharge at greenfield rates was accepted due to the significant reduction in overall flood risk provided by the wider brook improvement works. This agreement is documented within the Wiltshire Council response included in Appendix E of the original FRA. As this position was agreed previously, the discharge rates presented within the original Flood Risk Addendum are considered acceptable in principle. Any updated hydraulic modelling submitted in support of this condition discharge should therefore demonstrate discharge rates no greater than those previously agreed

2.1 Additional information required

It is noted that the submitted modelling predicts flooding at several manholes during the 1 in 100 year and 1 in 100 year plus climate change events, with MH S3-06 shown to flood by over 46m³ during the latter event.

Whilst some flooding may be acceptable where exceedance flows can be demonstrated to remain safely contained on site and not increase risk to people, property or infrastructure, supporting evidence will be required if flooding remains within the updated modelling. The LLFA will not accept the reported flood volume of 46m³ at a single manhole without evidence of the resulting flood depths and extents, and confirmation that any flooding can be safely contained on site. The drainage design should be revised accordingly if this cannot be demonstrated.

This is required to demonstrate compliance with Standard 3 of the National Standards for SuDS.

3. Compliance with the National SuDS Standards

It is noted that the National Standards for SuDS were formally published in June 2025, however these simply formalised amalgamated existing drainage best practices and policy. We have commented in relation to the National Standards, to help demonstrate how the outstanding requirements map to these policies.

3.1 National SuDS Standard 1 (Runoff Destination Hierarchy)

Ground investigations undertaken concluded that infiltration is not feasible. The proposed discharge to nearby watercourses and ditches is therefore considered to accord with the surface water drainage hierarchy and demonstrates compliance with Standard 1 (Runoff Destinations) of the National Standards for SuDS.

3.2 National SuDS Standard 2 (Interception Storage - Source Controls)

There is currently insufficient evidence to demonstrate compliance with National Standard 2 (Interception):

- The first 5mm of rainfall from the majority of rainfall events being managed through interception features without generating runoff.
- The use of SuDS source control measures throughout the drainage management train to minimise reliance on large downstream attenuation features.

Whilst the National Standards for SuDS formally introduces Interception Storage into policy in 2025, it has been industry best practice for this to be included since 2015 as published in Chapter 24.8 of CIRIA C753 *The SuDS Manual*. Therefore, it is considered that this requirement should be applied to the proposed development.

Evidence and supporting calculations should be provided demonstrating that runoff from each positively drained surface, for at least the first 5mm of rainfall, is either reused, infiltrated, or captured and stored within SuDS features. If full compliance cannot be achieved calculations should be provided to detail the volumes that could be achieved.

3.3 National SuDS Standard 3 (Water Quantity)

National Standard 3 has been partially addressed through the submission of exceedance flow plans and evidence that finished floor levels have generally been raised at least 150mm above surrounding ground levels. Urban creep and appropriate CV values appear to have been incorporated within the 2024 modelling and should also be included within the updated hydraulic calculations reflecting the revised SuDS design, as requested in Section 1.1 of this response. Compliance with this standard cannot be confirmed until updated hydraulic modelling representing the final SuDS design has been submitted and reviewed. It is also unclear whether surcharged outfall conditions have been applied to all drainage outfalls. Updated modelling should demonstrate this in accordance with Standard 3 of the National Standards for SuDS.

3.4 National SuDS Standard 4 (Water Quality)

National Standard 4 has been partially addressed through the water quality assessment provided within the 2024 Flood Risk Addendum. However, this assessment appears to assume that all runoff is routed through wetland basins prior to discharge. Review of the submitted drainage drawings indicates that parts of Phase 3 may discharge without receiving equivalent treatment. This is discussed further within the Phase 3 assessment of this response.

An updated water quality assessment should therefore be submitted, identifying all flow routes and supporting calculations. To demonstrate compliance with Standard 4 of the National Standards for SuDS, the following should be provided:

- SuDS have been selected to provide a wide range of benefits, including water quality.
- Calculations which demonstrate that the proposed drainage design provides a sufficient level of water treatment.

3.5 National SuDS Standard 5 – 7 (Amenity, Biodiversity, Construction and Management)

The inclusion of wetland basins is considered capable of delivering amenity and biodiversity benefits. As such, Standards 5 and 6 are considered to have been addressed in principle from a drainage perspective, noting that other Wiltshire Council officers may have more detailed comments on these aspects (biodiversity and amenity).

National Standard 7 is considered to have been addressed through the submission of detailed drainage drawings, manhole schedules, cross-sections, standard construction details and maintenance information.

4. Ditch Culverts and Watercourse Improvements

4.1 Points Under Agreement

Several ditch culverts and watercourse improvement works are proposed as part of the drainage strategy. These works were assessed and modelled at the outline planning stage and, as no significant changes are evident within the current submission, are considered acceptable in principle.

4.2 Additional information required

Several ditch culverts and watercourse improvement works are proposed as part of the drainage strategy. These works were assessed and modelled at the outline planning stage and, as no significant changes are evident within the current submission, are considered acceptable in principle.

However, cross-sections and construction details should be provided for the proposed culverts, including pipe diameters, materials, surfacing above the culverts and evidence of structural suitability. It is also worth noting that all culverts and watercourse improvements are subject to land drainage consent.

Phase 2 Assessment

The overall drainage strategy proposed for Phase 2 is broadly acceptable in principle. However, updated hydraulic modelling and further clarification on the matters outlined below are required before approval can be recommended. Detailed drainage drawings, manhole schedules, long sections and construction details have been reviewed and are generally acceptable.

All Phase 2 runoff is proposed to discharge to Wetland Basins 2 and 3. Whilst the overall approach is acceptable in principle, several aspects of both basins require further clarification before approval can be recommended.

6. Wetland Basin 2

6.1 Points Under Agreement

The basin is shown to discharge at 5.3 l/s via a Hydrobrake with 300mm freeboard maintained. This is acceptable in principle, subject to confirmation by updated hydraulic calculations.

6.2 Additional Information Required

Wetland Basin 2 is proposed with 1 in 3 side slopes and the submitted cross-section has been reviewed and is considered acceptable in principle. However, clarification is required regarding the basin depth, with the submitted drawing stating 15.5m whilst the cover and invert levels indicate a depth closer to 1.25m. It is assumed that this was incorrectly labelled on the drawing, and the applicant should update the drawing to reflect the proposed and modelled basin depth. Updated hydraulic calculations should reflect the confirmed design.

A culverted ditch is also proposed along the southern edge of the basin. Further cross-sections and construction details are required to demonstrate that the proposed culvert arrangement is suitable. Based on the submitted drawings, the culvert appears to encroach into the basin footprint, and it is unclear how this arrangement would function in practice (see Figure 1 below). As submitted, insufficient information has been provided to demonstrate that the culvert would not compromise the storage capacity, operation, or maintenance of the basin. Clarification is therefore required.

It is also unclear how the southern portion of the basin contributes to storage. It is understood that flows will enter the basin centrally whilst the outfall is located to the north. Depending on the basin grading, the southern area may either be isolated from incoming flows or may not hydraulically connect to the basin outlet. Additional level information and hydraulic evidence should be provided to demonstrate that the basin functions effectively.

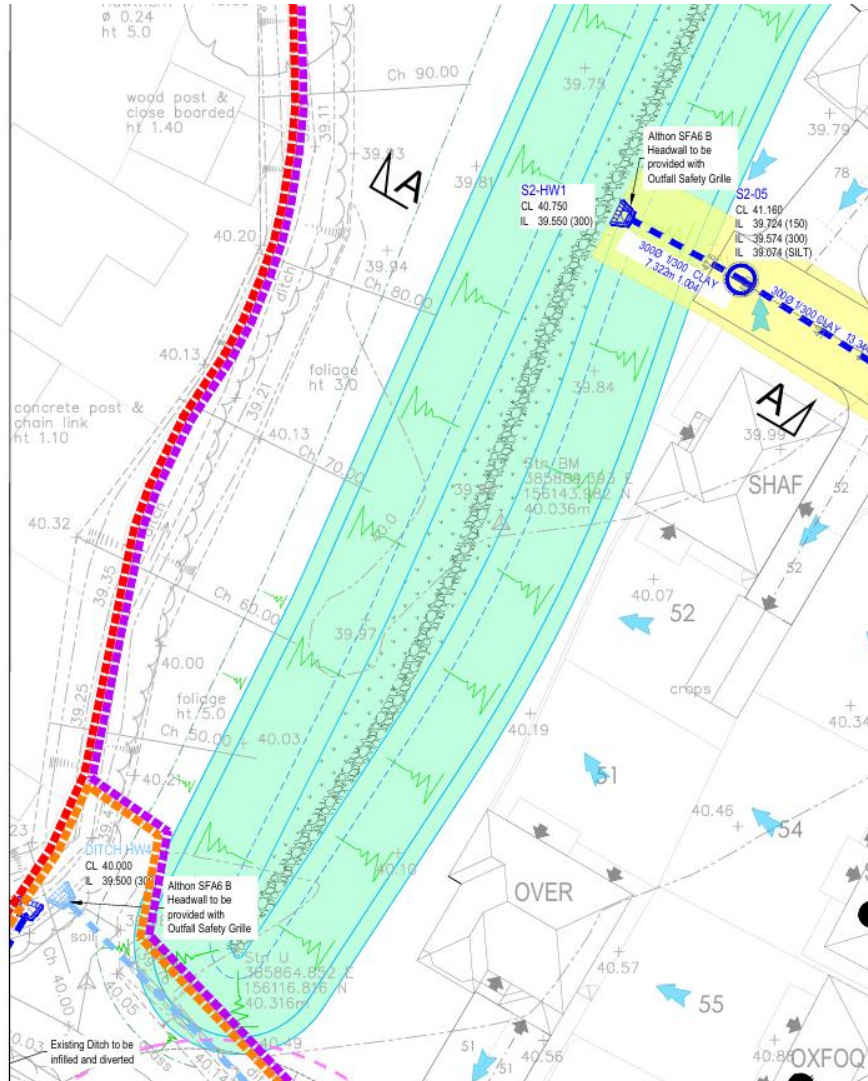


Figure 1: Southern portion of Wetland Basin 2 showing the proposed ditch culvert encroaching into the basin footprint. The basin inlet is located centrally.

7. Wetland Basin 3

7.1 Points Under Agreement

The submitted cross-sections for Wetland Basin 3 have been reviewed.

The submitted drawings indicate a combination of 1:2 and 1:3 side slopes. Whilst Wiltshire Council usually requires a minimum side slope of 1:3 for attenuation basins due to safety considerations, a review of the submitted cross-sections indicates that the proposed mixed arrangement is acceptable in this instance.

The basin is shown to discharge at 11l/s with 300mm freeboard. This is acceptable in principle, subject to confirmation through updated hydraulic modelling.

7.2 Points in need of additional information

The basin is proposed with a maximum depth of 2.3m, which exceeds the 2m depth generally recommended within the CIRIA SuDS Manual. However, the submitted modelling indicates a maximum water level of 39.098mAOD during the 1 in 100 year+CC event, giving a maximum water depth of approximately 1.6m above the basin invert (37.500mAOD). On this basis, the proposed water depth is considered acceptable in principle, subject to the incorporation of appropriate safety measures and confirmation that the basin can operate via gravity drainage without reliance on pumping. However, it is unclear why a basin depth of 2.3m is required, as the predicted maximum water level appears to provide the necessary 300mm freeboard without this additional depth. Clarification should therefore be provided.

8. Phase 2 Drainage Strategy Review

The Phase 2 drainage strategy relies predominantly on large attenuation basins and extensive oversized pipework, including pipes up to 750mm in diameter. Whilst this approach may provide the required attenuation volume, it appears to place significant reliance on downstream storage features, with limited use of source control SuDS measures throughout the site.

8.1 Additional Information Required

Further justification should be provided to explain why alternative SuDS components have not been incorporated. The current strategy does not appear to maximise the use of the SuDS management train and may not comply with the interception requirements of National Standard 2. Consideration should be given to the inclusion of source control measures such as permeable paving, rain gardens, tree pits or other distributed SuDS features. Where these have been discounted, justification should be provided with reference to site constraints, maintenance requirements, adoption arrangements, ground conditions or other relevant factors.

Phase 3 Assessment

9.1 Points Under Agreement

Runoff from the northern part of the site is proposed to discharge to Wetland Basin 4. The basin has been designed with a depth of 1.72m, 300mm freeboard and 1 in 3 side slopes. These features, together with the submitted cross-sections, have been reviewed and are considered acceptable in principle, subject to confirmation through updated hydraulic modelling.

9.2 Additional Information Required

It is noted that the Hydro-Brake controlling discharge from Wetland Basin 4 is located downstream of the basin outfall, at a manhole where flows from the southern drainage network also connect. This arrangement may be acceptable however, updated hydraulic modelling should demonstrate that it operates satisfactorily and does not result in flooding within the connecting pipework or manholes upstream of the flow control, particularly given the convergence of unrestricted flows at this location.

There are also concerns regarding the drainage strategy proposed for the southern part of Phase 3 (please see figure 2 below). Based on the submitted drawings, runoff appears to be collected directly via gullies and downpipes before discharging, with limited evidence of source control or treatment measures being incorporated into the design.

This approach is not considered acceptable. The Council would expect the drainage strategy to incorporate source control SuDS and an appropriate treatment train in accordance with National Standards 2 (Interception) and 4 (Water Quality). Whilst opportunities appear to exist for features such as permeable paving and rain gardens, no justification has been provided as to why these measures have been discounted. Appropriate SuDS features should therefore be incorporated, or evidence provided demonstrating why they are not feasible.



It is also noted that Wetland Basin 4 is proposed to discharge to an existing railway culvert. While Network Rail appears to have accepted this arrangement in principle at the planning stage, formal confirmation of the detailed connection proposal is required.

10. General Comments

checking of the design, calculations and details contained in the FRA and additional submitted information.

The applicant should note that if the intention is to offer the roads for adoption, the LLFA does not provide for the approval of drainage suitable for adoption by the Highway Authority. Further approval should be ascertained from the Highway Authority. To find out more about the processes required to secure road adoption, contact the Highway Authority at HighwaysDevelopment@wiltshire.gov.uk.

RECOMMENDATIONS

Condition 9 cannot be discharged until the following information is submitted and accepted by LLFA

- Updated hydraulic modelling and calculations reflecting the submitted drainage layout, including confirmation of the proposed discharge rates and compliance with either the previously agreed rates or Wiltshire Council's betterment policy, as noted in section 1.1
- Evidence that surcharged outfall conditions have been applied within the hydraulic modelling, as noted in section 3.3
- Evidence and calculations demonstrating compliance with National Standard 2, including interception of the first 5mm of rainfall and the use (or justification for the omission) of source control SuDS measure, as noted in section 3.2
- An updated water quality assessment demonstrating compliance with National Standard 4, including treatment calculations for all runoff routes, as noted in section 3.4
- Cross-sections and construction details for the proposed ditch culverts, as noted in section 4.2
- Clarification of the final design and operation of Wetland Basin 2, including evidence that the full basin volume contributes to attenuation, as noted in section 6.2
- Revised proposals for the southern part of Phase 3 demonstrating the incorporation of appropriate source control and treatment SuDS measures, or justification as to why such measures are not feasible, as noted in section 9.2
- Details of the proposed arrangement for managing runoff from the adjacent development within the site drainage network, as noted in section 9.2
- Formal confirmation from Network Rail accepting the proposed culvert connection and detailed outfall design, as noted in section 9.2

INFORMATIVES

- Prior to any works commencing on the upstream drainage network, the approved outfall structure and flow control device shall be fully constructed, tested, and commissioned. No discharge to the receiving system (including watercourses, waterbodies, sewers, or drains) shall occur until these measures are operational to ensure compliance with agreed discharge rates and prevent an increase in flood risk elsewhere.
- The applicant must ensure a copy of the drainage strategy & accompanying maintenance regime is included in the title deeds of the property.
- Wiltshire Council is the land drainage authority under the Land Drainage Act 1991. Land drainage consent is required if a development proposes to discharge flow into an ordinary watercourse or carry out work within 8m of an ordinary watercourse.
- Wiltshire Council's land drainage bylaws can be downloaded [here](#). The land drainage consent application form and guidance notes can be found on our website [here](#).

RELEVANT PLANNING POLICY & GUIDANCE

National Planning Policy Framework (NPPF) [NPPF December 2024 Link](#)
Planning and Flood Risk (Paras 170–182)

Wiltshire Core Strategy – Adopted January 2015 [Wiltshire Core Strategy Link](#)
Core Policy 67 requires that all new development must address flood risk from all sources and not increase flood risk elsewhere. It supports the use of Sustainable Drainage Systems (SuDS) and requires that developments demonstrate how surface water will be managed sustainably.

Wiltshire Local Plan (emerging) [Local Plan Review Link](#)
Development must avoid high flood risk areas using the sequential approach. Proposals require a Flood Risk Assessment, Surface Water Drainage Strategy, and Groundwater Assessment where relevant. All schemes must include Sustainable Drainage Systems (SuDS), with major developments achieving a 30% reduction in runoff compared to greenfield rates, following the surface water discharge hierarchy.

Culverting and building over watercourses is discouraged, and natural drainage features should be retained or restored. Drainage strategies must ensure safety during extreme flood events (1-in-100-year + climate change) and provide safe access/egress. SuDS should also deliver biodiversity, amenity, and water quality benefits.

Supplementary Planning Documents

Wiltshire Council Drainage Betterment Strategy (2024) [SPD Link](#)
This technical guidance outlines expectations for surface water discharge hierarchy, attenuation, exceedance routes, water quality, and post-development monitoring.

Wiltshire Design Guide (March 2024) [SPD Link](#)
Includes principles of good design, including integration of SuDS and flood resilience.

Other Relevant Policies and Guidance

Planning Practice Guidance (PPG) – Flood Risk and Drainage [Guidance Link](#)
Covers detailed expectations for flood risk assessments, SuDS design, discharge hierarchy, sequential testing and climate change allowances.

Wiltshire SFRA (2024) [SFRA Link](#)
This document underpins the Sequential and Exception Test application and provides site screening evidence.

Section 19 Flood Investigation Reports [Section 19 Reports Link](#)
These documents summarise investigations into significant local flood incidents and establish what caused the flooding, how authorities responded, and actions needed to prevent future floods.

National Standards for Sustainable Drainage Systems (SuDS) June 2025 [Guidance Link](#)
Establishes mandatory criteria for runoff destination hierarchy, interception, flood resilience, water quality, amenity, biodiversity, and long-term maintenance for all new developments in England.

SuDS Manual (CIRIA C753)
This document set out design principles, especially where attenuation, exceedance routing, and water quality are discussed.

Infiltration drainage design must be supported by ground investigations, including infiltration testing in accordance with *British Research Establishment (BRE) Digest 365 – Soakaway Design*, and groundwater level monitoring that accounts for seasonal variation.