

Engineers Comments Regarding Surface Water Drainage

Application Reference:	WA/62/25/DOC	Reviewer Reference:	ADC/PC
Planning Officer:	Amber Willard	Date of Review:	03/11/2025
Site Name:	Brookfield Farm Eastergate Lane Walberton BN18 0BA		
Application Description:	Approval of details reserved by condition imposed under reference WA/43/25/S73 relating to condition number 3 - proposed surface water drainage scheme and condition number 4 - discharge flows to watercourses.		
Assessment Number:	1 of 1		

Policy and Guidance Information

Arun District Council Surface Water Drainage Guidance (including design checklists) - <https://www.arun.gov.uk/surfacewater>

Land Drainage Consent – <https://www.westsussex.gov.uk/fire-emergencies-and-crime/dealing-with-extreme-weather/flooding/flood-risk-management/ordinary-watercourse-land-drainage-consent/>

Arun District Council Land Drainage Byelaws - <https://www.arun.gov.uk/byelaws/>

Arun District Council surface water pre-commencement conditions - <https://www.arun.gov.uk/planning-pre-commencement-conditions>

The National Standards for SuDS - <https://www.gov.uk/government/publications/national-standards-for-sustainable-drainage-systems/national-standards-for-sustainable-drainage-systems-suds>

The SuDs Manual [C753] by CIRIA

Response	Conditions 3 & 4: Objection
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References

The NPPF states that when determining any planning application, local planning authorities should ensure that flood risk is not increased elsewhere (paragraph 181, 182 and 187e). The PPG guides local planning authorities to refer to 'Sustainable drainage systems: non-statutory technical standards' [NsTS] and detailed industry guidance like The SuDS Manual [C753] by CIRIA to guide decisions about the design, maintenance, and operation of sustainable drainage systems for non-major development.

The NsTS have been superseded by the National Standards for Sustainable Drainage Systems [NSfS] from 19 June 2025.

This consultation has been primarily informed by the NSfS and The SuDS Manual.

Summary

This summary highlights if critical items aligning with each of the standards have been met. Critical items are highlighted in **bold** on our surface water drainage design checklist (linked above). A failure to address these will result in an **objection** to any application to discharge a surface water drainage design condition.

If any of these items are inadequately addressed by the submission, then their correction may result in a redesign of the surface water drainage scheme. A redesign is likely to have site wide implications such as the potential for storage structures to increase in volume or plan area, or the provision of other important infrastructure to satisfy the NSfS set out below.

All relevant items on the checklist are expected to be met before an application to discharge an application to discharge a SuDS design condition is supported.

Our response and requirements are elaborated upon or condensed within an attached comment tracker where necessary. If a comment tracker is provided a designer is encouraged to refer to this and respond to comments to aid further review. Please request a .docx version of this document to by email to land.drainage@arun.gov.uk if needed.

Standard	Assessment	Response
1. Runoff destination	Compliant	Support
2. Interception drainage	Insufficient	Objection due to an area of the proposed driveway at the site entrance having no interception
3. Extreme Rainfall and Flooding	Insufficient	Objection
4. Water Quality	Insufficient	Objection due to an area of the proposed driveway at the site entrance requiring formal drainage arrangements and water quality to be considered.
5. Amenity	Insufficient	Objection due to an area of the proposed driveway at the site entrance requiring formal drainage arrangements and its amenity benefits considered.
6. Biodiversity	Insufficient	Objection – further information required including arrangements for the driveway entrance & planting.
7. Construction, operation, maintenance, decommissioning and structural integrity	Insufficient	Objection

Reviewed Plans

The following documents have been submitted and reviewed to inform this consultation with reference to surface water drainage:

- Technical Note – Ordinary Watercourse Consent
- Technical Note – Surface Water Drainage Statement
- Ordinary Watercourse Land Drainage Consent LDC-2025-046

Condition wording

Condition 3 is worded as follows:

'No development shall commence (apart from the enabling works -listed below) until full details of the proposed surface water drainage scheme have been submitted to and approved in writing by the Local Planning Authority. The design should follow the hierarchy of preference for different types of surface water drainage disposal systems as set out in Approved Document H of the Building Regulations, and the recommendations of the SuDS Manual produced by CIRIA. Design considerations must take full account of the 'Supplementary Requirements for Surface Water Drainage Proposals' produced by Arun District Council and are an overriding factor in terms of requirements. Winter groundwater monitoring to establish highest annual ground water levels and winter percolation testing to BRE 365, or similar approved, will be required to support the design of any infiltration drainage. No building shall be occupied until the complete surface water drainage system serving the property has been implemented in accordance with the agreed details and the details so agreed shall be maintained in good working order in perpetuity.

For the purposes of the conditions of this planning permission, 'Enabling Works' shall comprise the following, and these works shall not be subject of the conditions of this Permission unless expressly stated in any individual condition:

- (a) site investigations or surveys;*
- (b) ecological preparation works;*
- (c) the provision of security fencing, hoarding and sales signage;*
- (d) the clearance of the site;*
- (e) the provision of any temporary site point of access for construction traffic; and*
- (f) provision of temporary Welfare & Accommodation*
- (g) temporary builders supply (electricity, water, data etc)*
- (h) works connected with ground infilling or regrading*
- (i) works to remove soil mounds and any associated levelling and remediation*
- (j) topsoil strip and re-grading of levels,*
- (k) any temporary construction road or "haul road" to facilitate enabling works*
- (l) works for the provision or removal of drainage or mains services to prepare the Site for development*

Reason: To ensure that the proposed development is satisfactorily drained in accordance with policies W SP1, W DM1, W DM2 and W DM3 of the Arun Local Plan. This is required to be a precommencement condition because it is necessary to implement the surface water drainage system prior to commencing any building works.

Condition 4 is worded as follows:

The development shall not proceed (apart from the enabling works -listed below) until details have been submitted to and approved in writing by the Local Planning Authority for any proposals: to discharge flows to watercourses; or for the culverting, diversion, infilling, or obstruction of any watercourse on or adjacent to the site. Any discharge to a watercourse must be at a rate no greater than the pre-development run-off values and in accordance with current policies. No construction is permitted, which will restrict current and future landowners from undertaking their riparian maintenance responsibilities in respect to any watercourse or culvert on or adjacent to the site.

For the purposes of the conditions of this planning permission, 'Enabling Works' shall comprise the following, and these works shall not be subject of the conditions of this Permission unless expressly stated in any individual condition:

- (a) site investigations or surveys;*
- (b) ecological preparation works;*
- (c) the provision of security fencing, hoarding and sales signage;*
- (d) the clearance of the site;*

- (e) the provision of any temporary site point of access for construction traffic; and
- (f) provision of temporary Welfare & Accommodation
- (g) temporary builders supply (electricity, water, data etc)
- (h) works connected with ground infilling or regrading
- (i) works to remove soil mounds and any associated levelling and remediation
- (j) topsoil strip and re-grading of levels,
- (k) any temporary construction road or "haul road" to facilitate enabling works
- (l) works for the provision or removal of drainage or mains services to prepare the Site for development

Reason: To ensure that the proposed development is satisfactorily drained in accordance with policies W DM1, W DM2 and W DM3 of the Arun Local Plan. And to ensure that the duties and responsibilities, as required under the Land Drainage Act 1991, and amended by the Flood and Water Management Act 2010 can be fulfilled without additional impediment following the development completion. It is considered necessary for this to be a pre-commencement condition to protect existing watercourses prior to the construction commencing.

Consultation comments to the planning officer

1. Please see the comment tracker below for detailed comments relating to the submission.

Drainage Impact on Other Planning Matters

This application has been assessed with regards to surface water drainage design only, together with land drainage aspects if deemed necessary.

Other planning matters occasionally effect the surface water drainage design. If plans relating to other matters have been assessed for their impact on the proposed drainage, then it must not be assumed that they have been assessed for any other purpose. The planning officer is advised to check for conflicts with any existing approved plans and to consult any relevant consultees as appropriate.

It has been identified that the following consultees may have comments about the plans that have been submitted and reviewed for this application:

- ☒ Landscaping officer (proposed trees and landscaping)
- ☒ Tree officer (existing trees)
- ☐ Environment Agency (main rivers and fluvial/tidal flood risk, River Arun internal drainage board, groundwater source protection zones)
- ☐ Southern Water (foul drainage and surface water disposal to public sewer network/groundwater source protection zones)
- ☐ Portsmouth Water (groundwater source protection zones)
- ☐ Lead local flood authority (all other sources of flooding and ordinary watercourses)
- ☐ Other: Specify
- ☐ None

Application Reference: WA/62/25/DOC Site Name: Brookfield Farm, Eastergate Lane, Walberton BN18 0BA	Initial Issue Date: 03/11/25 Issue Date: 03/11/25 Reviewer Reference: ADC/PC
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Summary and Recommendation:

Conditions 3 & 4: **Objection**

Please note: Any DOC application should only have a maximum of two consultation responses. If this is the second response for an open application and there are still comments outstanding, then please object to the application.

	ADC Drainage Comments (WA/62/25/DOC)				
Date:	03/11/2025				
Condition Number: 3 Surface Water Drainage					
Comment Number					
1)	It is recommended that the applicant reviews the surface water drainage design checklist provided on the Arun District Council website Designer checklists Arun District Council and makes a full resubmission including all required data, even if it has been submitted under previous applications. The comments below are given on the information that has been submitted to date, further information is required as listed on the checklist.				

	Guidance is also available Surface water drainage Arun District Council				
2)	The discharge rate of 2 l/s to the watercourse exceeds QBAR and potentially the 3 ls/ha requirements. This rate has been proposed in order to maximise the flow control opening diameter. However, this will need to be adjusted to ensure a maximum flow rate of QBAR or 3 ls/ha (whichever is greater). The flow control opening will require anti-blockage measures to be incorporated (to be fully detailed). Due to high groundwater levels, it is likely that runoff from areas other than impermeable surfaces, will contribute as inflow into the Suds system during extreme events (see item 3.29 of the National Standards for SuDS). This will need to be accounted for in the hydraulic model calculations and also in the calculations for the allowable greenfield run off rate. See also; Contributing areas Arun District Council				

	Fully detailed calculations are required to support the revised greenfield runoff rate. Provide the FEH point descriptors file (email to; land.drainage@arun.gov.uk)				
3)	The hydraulic calculations for the SuDS proposals have not been checked as a result of the changes required by this consultation. However, please ensure (if not already accounted for) that CV values are correct, design against a surcharged outfall where outfalling to the watercourse (refer to our guidance in this respect), utilise FEH22 data and ensure the basin and swale plan areas are included in the contributing areas.				
4)	Provide a catchment plan (areas in m²) to support the greenfield runoff and SuDS hydraulic calculations.				
5)	High groundwater levels are noted and thus have ruled out infiltration due to the inability to achieve one metre freeboard between peak groundwater levels and the formation levels of SuDS features. See item 1.15 of				

	the National Standards for SuDS. Due to this requirement, Infiltration potential must not be included in the hydraulic calculations. For future reference, infiltration testing was undertaken in the summer (rather than winter/spring) and did not take account of peak groundwater levels, consider the one metre required freeboard or reflect the depth of SuDS features, so any data obtained would not be usable in any design.				
6)	An area of the driveway at the site entrance is shown not to be positively drained. The lower ground levels are noted here, however, a proposal will need to be put forward to achieve compliance with the national Standards for SuDS. The flows will need to be accounted for in determining the allowable discharge rate from the site.				
7)	Incorporate silt traps at strategic locations ie. immediately upstream of rainwater harvesting tanks, etc.				

8)	Show rainwater water downpipe locations and connectivity to the downstream pipework. Ensure any pipes not connecting to manholes are connected via oblique 45 degree junctions (include construction detail).				
9)	Proposed channel drain in driveway – consider measures to help mitigate the risk of loose stones from the drive, being conveyed and potentially blocking the channel drain.				
10)	100mm diameter pipes not to be laid any flatter than 1 in 100 gradient. It appears that numerous pipelines are not achieving this requirement. Refer to Approved Document H.				
11)	Pipeline S0362 to S0303 is located very close to the building – please adjust.				
12)	Invert levels & overflow levels? in vicinity of rainwater harvesting tanks are unclear in terms of ensuring a positive downstream fall. Please review.				
13)	Specify/detail planting arrangements within the swale and attenuation basin.				

14)	Dimension swale o the construction detail including overall width.				
15)	Attenuation basin construction details – provide more separation between the two construction details at the top of drg. SWD-002. Outlet invert level shown as 11.95 but 11.90 on drainage layout plan. Levels likely to change due to other factors. Show the impermeable membrane line more clearly. Specify material above impermeable liner. Provide more details on the arrangements for the proposed stone boulders in the attenuation basins base, ensuring that any potential damage to the liner is mitigated. Specify arrangements where pipe inlets/outlets pass through the impermeable membrane to ensure water tightness.				

	300mm freeboard should ideally be achieved between top of bank and maximum predicted water level in the basin. Fully dimension anchoring trench and show impermeable membrane line more clearly.				
16)	Provide an attenuation basin layout with setting out co-ordinates.				
17)	Permeable paving construction detail -Specify stone void ratio. Specify impermeable liner as opposed to a permeable one to ensure groundwater cannot enter the system.				
18)	Swale construction detail - Specify impermeable liner as opposed to a permeable one to ensure groundwater cannot enter the system.				
19)	Swale inlet construction details – more detailed information required.				
20)	Floatation calculations required for attenuation basin and swale.				
21)	Specify channel drain outlet pipe details ie. diameter, gradient, invert levels.				

22)	Specify invert levels for <u>all</u> headwalls.				
23)	Specify diffuser outlet pipes details ie. diameter, gradient, invert levels.				
24)	Add permeable paving formation levels/formation gradients to layout plan. Ensure hydraulic calculations reflect the gradients/s.				
25)	Dimension permeable paving on layout plan or provide setting out co-ordinates.				
26)	Invert level at flow control chamber (S0104_FC) unclear ie. invert level 11.55 – catchpit base level?				
27)	When specifying invert levels for permeable pavement headwall outlets to the swale, ensure as much freeboard as possible between pipe invert and swale base.				
28)	Specify diameter, gradient, invert levels for pipeline immediately upstream of flow control chamber.				
29)	Show foul drainage beyond that already shown ie. around properties, to ensure no conflict with the surface water drainage ie. level clashes, etc.				
30)	Provide fully detailed construction details for all				

	components ie. manholes, flow control chamber/mechanism, pipe bedding, channel drains, rainwater harvesting tanks, <u>all</u> headwalls, rainwater downpipes, diffuser units, stone pitching (apron) arrangements, etc.				
31)	Proposed trees/hedging and existing trees – please provide an assessment as to any impact on the proposed drainage (ie. pipework, permeable paving and open SuDS features). Include root protection zones (to account for reaching maturity) on the drainage layout plan. Where conflict occurs, provide full details of mitigation, including root barriers where necessary.				
Condition Number: 4 Watercourses & Land Drainage					
1)	Northern boundary cut off drain (overland flows); a) Notes on drainage layout plan in respect to construction are noted. However, the intention would be to ensure that flows to the ditch are slowed as much as possible to reduce flood risk downstream. Therefore, a perforated pipe in the gravel				

	trench should be omitted and the trench filled with granular material only. b) Fully detailed construction detail is required of the granular trench, clearly specifying the fill material and an impermeable geomembrane wrap to sides and base to prevent groundwater being drained. c) Specify formation levels trench at 10 m centres, including gradient/s. d) Incorporate a diffuser unit at the downstream end of the trench to accommodate the outlet pipe to the ditch (ensuring sufficient cover to unit).Also, provide a construction detail. e) Specify pipe diameter, material, gradient and invert levels of outlet pipe between diffuser unit and ditch. Include construction detail for pipe bedding (class Z) and headwall. f) As much freeboard as possible is required between ditch bed and pipe invert (absolute minimum 150mm).				
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	Indicate ditch bed level at point of connection. g) On the assumption that the headwall structure will not encroach into the profile of the ditch then Land Drainage Consent from the Lead Local Flood Authority will not be required. However, consent under our Land Drainage Byelaws Byelaws Arun District Council will be required and any approval will need to be submitted with the next resubmission. Please email land.drainage@arun.gov.uk for an application form and accompanying guidance notes.				
2)	Re-profiling of the southern boundary ditch is noted to accommodate the proposed SuDS outfall pipe. However, an absolute minimum 150mm freeboard is required between pipe invert and ditch bed. This is currently not being achieved. A longitudinal section (existing & proposed bed levels), together with suitable cross sections are required to support the re-profiling				

	proposal. The proposal must ensure that the stability of the banks are not compromised. Impact on any existing trees also need to be considered. The invert level of the existing culvert under Eastergate Lane must be included on the longitudinal section. The reprofiling may require Land Drainage Consent from the Lead Local Flood Authority. If so, evidence of consent approval will be required. It appears that the outfall headwall is proposed to be set back from the ditch. Consent will be required under our Land Drainage Byelaws for the outfall structure which will require full construction details of the bank modifications and bagwork reinforcement will be required. Confirmation of approval will need to be submitted with the next resubmission. Please email land.drainage@arun.gov.uk for an application form and accompanying guidance notes.				
3)	Dimension distance between pond top of bank and ditch				

	top of bank ensuring min. 3m clearance.				
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If a designer would like a .docx version of this document to aid administration of responses, please request this by email to land.drainage@arun.gov.uk.

From: Nicola Oktay on behalf of Planning.Responses
Sent: 04 November 2025 11:50
To: Planning Scanning
Subject: FW: Planning Consultation on: WA/62/25/DOC
Attachments: WA-62-25-DOC Brookfield Farm, Eastergate Lane.docx

Drainage Engineers response

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Our priorities...

Improving the wellbeing of Arun

Delivering the right homes in the right places

Supporting our environment to support us

Fulfilling Arun's economic potential

From: Paul Cann <Paul.Cann@arun.gov.uk>
Sent: 03 November 2025 14:38
To: Planning.Responses <Planning.Responses@arun.gov.uk>
Cc: Sarah Burrow <Sarah.Burrow@arun.gov.uk>; Amber Willard <Amber.Willard@arun.gov.uk>
Subject: RE: Planning Consultation on: WA/62/25/DOC

Please find enclosed my consultation, an objection.

Regards

Paul Cann
Principal Drainage Engineer, Coastal Engineers and Flood Prevention

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From: Planning.Responses <Planning.Responses@arun.gov.uk>
Sent: Friday, July 25, 2025 10:48:29 AM (UTC+00:00) Monrovia, Reykjavik
To: Land Drainage <Land.Drainage@arun.gov.uk>
Subject: Planning Consultation on: WA/62/25/DOC

To: **Engineers (Drainage)**

NOTIFICATION FROM ARUN DISTRICT COUNCIL

TOWN AND COUNTRY PLANNING ACT 1990

Application No: **WA/62/25/DOC**
Registered: 24th July 2025
Site Address: Brookfield Farm Eastergate Lane Walberton BN18 0BA
Description of Works: Approval of details reserved by condition imposed under reference WA/43/25/S73 relating to condition number 3 - proposed surface water drainage scheme and condition number 4 - discharge flows to watercourses.

The Council have received the above application to discharge conditions. I shall be pleased to receive any observations you may wish to make in respect of those conditions relating to your field of expertise.

[Click here to view the Discharge of Condition application and view the documents](#) The website is updated once a day in the evening, so you may need to wait until the day after this notification to view the documents.

[Click here to view the original application and decision notice](#)

Should you wish to make any comments click on the link and click into ?Enter Comment? or if this is not possible email your response to planning.responses@arun.gov.uk by **8th August 2025**.

Please be aware that any comments you may make will be available on our website so please do not insert personal details or signatures on your reply.

In the absence of a reply within the period stated, I shall assume that you have no observations to make.

Yours sincerely

Amber Willard

Planning Case Officer- Arun District Council

Telephone: 01903 737942

Email: amber.willard@arun.gov.uk