

## Engineers Comments Regarding Surface Water Drainage

<b>Application Reference:</b>	BN/46/25/PL	<b>Reviewer Reference:</b>	ADC/SB
<b>Planning Officer:</b>	Amber Willard	<b>Date of Review:</b>	06/08/2025
<b>Site Name:</b>	Land South of Wandleys Lane Eastergate PO20 3SE		
<b>Application Description:</b>	Application for construction of 10 No. dwellings with new access from Wandleys Lane, landscaping and areas for ecology & amenity space. This application is a Departure from the Development Plan and is in CIL Zone 3 and is CIL Liable as new dwellings.		
<b>Assessment Number:</b>	1 of 1		

### Policy and Guidance Information

Arun District Council Surface Water Drainage Guidance - <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/> and <https://www.arun.gov.uk/land-drainage-consent/>

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

National standards for sustainable drainage systems (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

<b>Response</b>	<b>No objection subject to condition.</b>
-----------------	---

### Critical Items for Surface Water Drainage Design Conditions

The failure to adequately address the following items will result in an objection to a surface water drainage design.

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.

Critical Item	Reason	Status
<b>Winter groundwater monitoring data.</b>	<p>Adequate winter groundwater monitoring data must be supplied to evidence that infiltration designs have sufficient freeboard from the base of structures and the peak groundwater level.</p> <p>The same data is necessary to ensure that the potential for buoyancy has been adequately considered in attenuation designs.</p>	<b>Compliant</b> , however depth restricted by the depth of the holes rather than the groundwater. Further monitoring may be required to demonstrate 1m unsaturated ground

		between infiltrating features and groundwater.
<b>Winter infiltration testing data.</b>	<p>Adequate winter infiltration testing must be supplied to justify the proposed discharge method and design infiltration rates.</p> <p>Infiltration tests must be completed strictly in accordance with BRE DG 365, CIRIA R156 or a similar approved method. Testing depths must account for peak groundwater levels and correspond with the location and depth of proposed infiltration features.</p> <p>Designs must be based upon the <u>slowest</u> infiltration rate evidenced closest to a proposed infiltration feature. Average design rates will not be accepted.</p> <p>The results of incomplete tests should not be extrapolated to obtain design values for infiltration rates.</p>	<b>Insufficient</b> – the infiltration testing has not been included in the ground investigation report, dates of testing are unknown. Only one trial pit at the correct depth for two of the areas of permeable paving.
<b>The hierarchy for sustainable drainage.</b>	<p>The proposed discharge method must accord with the SuDS hierarchy as given below. Evidence must be supplied to justify the proposed discharge method.</p> <ol style="list-style-type: none"> <li>1. Rainwater reuse where possible.</li> <li>2. Complete discharge into the ground (infiltration).</li> <li>3. Hybrid infiltration and restricted discharge to an appropriate water body or surface water sewer.</li> <li>4. Restricted discharge to an appropriate water body.</li> <li>5. Restricted discharge to a surface water sewer.</li> <li>6. Restricted discharge to a combined sewer.</li> </ol> <p>A water body may be defined as a river, watercourse, ditch, culverted watercourse, reservoir, wetland or the sea.</p> <p><b>Engineers cannot support any proposed connection of surface water to the foul sewer.</b></p>	<b>Compliant</b> with secondary option available.

<p><b>Calculations</b></p>	<p>Calculations for pre-development run off rates must be based upon the positively drained area only.</p> <p>Proposed discharge rates must not increase flood risk on site or elsewhere. Discharge rates must be restricted to QBAR or 2 l/s/ha, depending on whichever is higher.</p>	<p><b>Not assessed</b> – due to infiltration design</p>
	<p>Designs must be based on the most recently available rainfall data at the time of conditions being applied. <b><u>FSR rainfall data will not be accepted.</u></b> FEH rainfall data is based upon more recent records and continues to be updated.</p>	<p><b>Compliant</b></p>
	<p>Designs must use the correct climate change allowances at the time of determination of the outline or full planning application.</p> <p>CV values for all events must be set to 1. This includes summer, winter, design, and simulation events.</p> <p>The correct allowance for urban creep must be applied.</p> <p>Additional storage must be set to zero unless it can be evidenced where this is provided.</p> <p>Infiltration half-drain times must be less than 24 hours.</p> <p><b>Infiltration design rates must be applied to the sides of soakaways, or to the base of infiltration blankets. Design rates must not be applied to both the base and sides of infiltration structures.</b></p> <p><del>A surcharged outfall must be modelled.</del></p>	<p><b>Insufficient</b> – unclear where the design rate is applied on the modelling – to be clarified via condition.</p>
<p><b>Natural catchments design.</b></p>	<p>The submission must define the natural drainage characteristics within, and hydraulically linked to, the site and demonstrate that the drainage proposals will integrate with and not compromise the function of the natural and existing drainage systems.</p> <p>The condition, performance (including capacity where appropriate) and ownership of any existing site surface water drainage infrastructure must be accurately reported.</p>	<p><b>Compliant</b></p>

	<p>Appropriate easements to watercourses and other services must be shown on all plans.</p> <p>Where there are areas of flood risk from any source on the site, it must be shown how a sustainable surface water drainage design can be accommodated on the site without conflicting with those areas of flood risk.</p> <p>Designs must replicate the natural drainage catchments of the site. All surface water drainage designs must therefore drain via gravity to corresponding points of discharge.</p> <p><b>The use of pumps for surface water drainage is not sustainable and will only be considered where the designer has fully demonstrated that they are proposed as a last resort.</b></p>	
<b>Plans</b>	Plan areas, depths and levels of drainage infrastructure must accurately correspond with the supporting calculations.	<b>Insufficient</b> – the contributing areas have not been fully modelled. Only 1500m <sup>2</sup> is accounted for in the modelling (of 1737m <sup>2</sup> ).
<b>Water quality benefits.</b>	An assessment of water quality is necessary to evidence that the proposed design provides adequate treatment of surface water.	<b>Compliant</b>
<b>Biodiversity and amenity benefits.</b>	The surface water drainage design must provide biodiversity and amenity benefits.	<b>Insufficient</b>
<b>Trees and planting</b>	<p>There should be no conflict between surface water drainage infrastructure and existing or proposed trees or planting.</p> <p>The design must consider the potential growth of proposed trees and adequate mitigation must be provided to protect drainage infrastructure where conflict <b>cannot</b> be avoided.</p>	<b>Insufficient</b> – mitigation will be required for pipework beneath proposed trees.

#### Drainage Impact on Other Planning Matters

This application has been assessed with regards to surface water drainage design only.

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, groundwater source protection zones)
- Southern Water (foul drainage and surface water disposal to public sewer network)
- Portsmouth Water (groundwater source protection zones)
- Lead local flood authority (all other sources of flooding and ordinary watercourses)
- Other:
- None

#### Additional comments to the planning officer

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' 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.

This consultation has been primarily informed by The SuDS Manual.

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

- Surface Water Drainage Design Summary and Calculations, reference D2345 dated 01/04/2025 (v1.0). Uploaded in 4 parts on the planning portal.
- 230010 -16 Rev A – Proposed Landscape Strategy
- Arboricultural Implications Assessment and Method Statement for Land at Wandleys Lane, Eastergate. Reference 241637 – AIA dated 21 March 2025.

It is noted that a consultation with no objection and a suggestion of conditions has already been provided by the Lead Local Flood Authority, West Sussex County Council.

As illustrated by the critical items table above, the surface water drainage design does not meet the requirements for approval. Further ground investigations may be required to establish the correct design infiltration rate or to ensure that 1m of unsaturated ground is achieved between the base of the permeable paving and the peak groundwater level. The modelling needs to be adjusted to reflect the design.

At present the design includes no provision for biodiversity or amenity benefit, nor are these discussed in the design summary. The inclusion of features to meet biodiversity and amenity standards may affect the layout and landscaping strategy.

The applicant has submitted enough information to provide confidence that an infiltrating scheme will be viable on the site. On this basis, the application of conditions to determine the final detailed surface water drainage design may be acceptable. The planning officer should consider how biodiversity and amenity benefits can be included post approval if minded to grant permission.



**From:** Nicola Oktay on behalf of Planning.Responses  
**Sent:** 08 August 2025 12:37  
**To:** Planning Scanning  
**Subject:** FW: Planning Consultation on: BN/46/25/PL  
**Attachments:** BN-46-25-PL - South of Wandleys Lane.docx

Drainage Engineers response

**Nikki Oktay**  
**Planning Receptionist, Planning Department**







**T:** 01903 737965  
**E:** Nicola.Oktay@arun.gov.uk

Arun District Council, Civic Centre, Maltravers Rd  
Littlehampton, West Sussex, BN17 5LF  
[www.arun.gov.uk](http://www.arun.gov.uk)

To register to receive notifications of planning applications in your area please go to <https://www1.arun.gov.uk/planning-application-finder>



**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:** Sarah Burrow <Sarah.Burrow@arun.gov.uk>  
**Sent:** 07 August 2025 15:28  
**To:** Planning.Responses <Planning.Responses@arun.gov.uk>  
**Cc:** Amber Willard <Amber.Willard@arun.gov.uk>; Paul Cann <Paul.Cann@arun.gov.uk>  
**Subject:** RE: Planning Consultation on: BN/46/25/PL

Hi Amber,

Find the consultation, no objection subject to condition – attached. I have no objection to the application of the conditions suggested by WSCC LLFA.

Kind regards







**Sarah Burrow**  
**Flood Risk and Drainage Engineer, Coastal Engineers and Flood Prevention**

**T:** 01903 737815  
**E:** [sarah.burrow@arun.gov.uk](mailto:sarah.burrow@arun.gov.uk)  
**M:** 07733 125764

Arun District Council, Civic Centre, Maltravers Rd  
Littlehampton, West Sussex, BN17 5LF  
[www.arun.gov.uk](http://www.arun.gov.uk)



**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:** Planning.Responses <[Planning.Responses@arun.gov.uk](mailto:Planning.Responses@arun.gov.uk)>  
**Sent:** 16 April 2025 10:04  
**To:** Land Drainage <[Land.Drainage@arun.gov.uk](mailto:Land.Drainage@arun.gov.uk)>  
**Subject:** Planning Consultation on: BN/46/25/PL

To: **Engineers (Drainage)**

#### **NOTIFICATION FROM ARUN DISTRICT COUNCIL**

**Town & Country Planning Act 1990 (as amended)**

**Town and Country Planning (Development Management Procedure) (England) Order 2015**

#### **Planning Permission**

**Application No:** BN/46/25/PL  
**Registered:** 8th April 2025  
**Site Address:** Land South of Wandleys Lane Eastergate PO20 3SE  
**Grid Reference:** 495021 106282  
**Description of Works:** Application for construction of 10 No dwellings with new access from Wandleys Lane, landscaping and areas for ecology & amenity space. This application is a Departure from the Development Plan and is in CIL Zone 3 and is CIL Liable as new dwellings.

The Council have received the above application.

[Click here to view the application and 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.

This application has been identified as CIL Liable. Therefore please be aware that, in accordance with Appendix 2 of the Arun CIL Charging Schedule, your consultation response should only include requests for Section 106 for onsite mitigation, Pagham Harbour Management Contributions (if applicable) or Affordable Housing. "Off" Site mitigation measures directly related to this development should be dealt with by condition if possible to ensure the scaling back of Section 106 if possible. CIL contributions will be used for "off" site infrastructure mitigation schemes. Therefore if this proposal triggers the need for "off" site mitigation, please ensure that you engage in the CIL Infrastructure List Consultation process upon receipt of a consultation letter.

Should you have any comments to make, these should be sent by replying to this email by 23rd May 2025 . You can also monitor the progress of this application through the Council web site:

<https://www.arun.gov.uk/planning-application-search>

The application will be determined having regard to the development plan policies (if any are relevant) and other material considerations. The development plan can be accessed via the website <https://www.arun.gov.uk/development-plan> as can information on what comments we can consider <https://www.arun.gov.uk/planning-application-comments>

**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.**

Should the application go to appeal the Planning Inspectorate will publish any comments made to the Council on their website:<https://acp.planninginspectorate.gov.uk/> but they will protect personal details.

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 Officer- Arun District Council

Telephone: 01903 737942

Email: [amber.willard@arun.gov.uk](mailto:amber.willard@arun.gov.uk)