

DRAINAGE STRATEGY STATEMENT

Planning Condition Discharge | Surface Water and Foul Water Drainage

Land at 1A Lodgelands, Ardingly, West Sussex Erection of a Pair of Three-Bedroom Semi-Detached Dwellings

Site address:	Land at 1A Lodgelands, Ardingly, West Sussex
Development:	Two x 3-bedroom semi-detached dwellings
Prepared for:	Robert Fielden
Report reference:	[Report Reference]
Version / Date:	1.0 20 th March 2026
Planning application ref:	DM/24/2999
Local Planning Authority:	Mid Sussex District Council (MSDC)
Lead Local Flood Authority:	West Sussex County Council (WSCC)

1. Introduction and Purpose

This Drainage Strategy Statement has been prepared to support the discharge of planning conditions relating to surface water and foul water drainage for the proposed erection of a pair of three-bedroom semi-detached dwellings at Land at 1A Lodgelands, Ardingly, West Sussex.

It is noted that a drainage condition for this site has previously been discharged in respect of an earlier scheme comprising a single dwelling. This statement has been prepared to address the revised development, which proposes two dwellings in place of the previously approved single dwelling. The drainage principles established in the previously approved scheme — infiltration to soakaways and connection to the public foul sewer in Lodgelands Highway — are retained and carried forward. The scheme has been updated to reflect the increased scale of development and to ensure full compliance with current policy and guidance.

The strategy has been prepared in full accordance with the following:

- National Standards for Sustainable Drainage Systems (SuDS) (Defra, June 2025)
- CIRIA SuDS Manual (C753)
- West Sussex LLFA Surface Water Management Policy
- Environment Agency Climate Change Allowances Guidance (February 2023)
- MSDC Detailed Drainage Design Technical Summary (v2.0, November 2025)
- MSDC Detailed Drainage Design Checklist (v2.0, November 2025)

The surface water strategy is based upon infiltration to soakaways, which were designed by Dr Elson following BRE Digest 365 compliant infiltration testing at the site. This represents the highest priority discharge route within the drainage hierarchy. Foul water from both dwellings will drain by gravity to the existing public foul sewer in Lodgelands Highway.

2. Site Description and Development Overview

2.1 The Site

The site is located at Land at 1A Lodgelands, Ardingly, West Sussex. Ardingly is a rural village within the Mid Sussex district, situated to the south of the High Weald Area of Outstanding Natural Beauty. The site is understood to be within Flood Zone 1, indicating a low probability of fluvial flooding.

The local geology in the Ardingly area is predominantly Ardingly Sandstone and Tunbridge Wells Sand Formation, which are generally regarded as moderately to highly permeable. This has been confirmed as suitable for infiltration drainage at this specific location through the ground investigation and infiltration testing carried out by Dr Elson, the results of which underpin the drainage design.

2.2 The Proposed Development

The proposed development comprises the erection of a pair of three-bedroom semi-detached dwellings with associated access, parking, landscaping, and gardens. The key external materials and surfaces are as follows:

Roof covering:	Plain clay tiles — a low-pollution surface presenting negligible risk of harmful runoff. Roof drainage will connect directly to the soakaways via rainwater downpipes and underground connections.
External walls:	Facing brick — a non-draining surface; wall drainage contributes to ground percolation locally and does not require separate treatment.
Driveways and paths:	Permeable paving — all external hard-standing areas, including driveways and footpaths, will be constructed as permeable paving systems. This allows rainfall to percolate through the surface directly into the sub-base and ground, greatly reducing surface runoff and providing inherent water quality pre-treatment.
Soft landscaping:	Gardens and planted areas — permeable by nature; rainfall on soft-landscaped areas infiltrates directly and does not contribute to the drainage system.

The choice of permeable paving for all driveways and paths is a significant SuDS design decision. It means that the only impermeable area contributing runoff to the drainage system is the roof. Permeable paving eliminates the need to formally drain hard-standing areas via pipes or channels, instead managing rainfall at source. This is consistent with the principles of the drainage hierarchy and the multi-functionality objectives of the National SuDS Standards (Defra, June 2025).

2.3 Relationship to Previously Approved Drainage Scheme

A drainage condition was previously discharged for this site in connection with a scheme for a larger slightsingle dwelling. The approved drainage approach at that time established that infiltration to soakaways is a feasible and appropriate method of managing surface water at this location, and that connection to the public foul sewer in Lodgelands Highway is the appropriate method of foul water disposal.

The current proposal for two semi-detached dwellings represents a modest increase in scale. The previously approved principles are fully retained. Dr Elson's infiltration testing and soakaway design has been updated to reflect the revised development and slight increased roof area, ensuring that the soakaways are appropriately sized for both dwellings. The foul drainage connection to Lodgelands Highway remains unchanged in principle.

3. Policy and Compliance Framework

This strategy is designed to comply with the five core standards of the National Standards for Sustainable Drainage Systems (SuDS) (Defra, June 2025). The following table summarises how each standard is met by this scheme.

Standard	Requirement	How this scheme complies
Standard 1	Discharge via drainage hierarchy — infiltrate first	All surface water is managed by infiltration to soakaways designed by Dr Elson. No discharge to watercourse or sewer. The highest priority in the hierarchy is achieved.
Standard 2	Peak flow control at or below greenfield rate	Soakaways attenuate and infiltrate runoff. No offsite discharge occurs above the natural infiltration rate of the ground. Greenfield rate is not exceeded.
Standard 3	Volume control for the 1 in 100-year 6-hour storm	Soakaways are sized to accommodate the critical design storm including climate change uplift, without surcharge or overflow under design conditions.
Standard 4	Water quality treatment	Clay tile roofs present negligible pollution risk. Permeable paving on all driveways and paths provides inherent filtration and pre-treatment. Simple Index Approach confirmed — mitigation exceeds hazard index.
Standard 5	Maintainable, safe, and integrated drainage	Soakaways are located within the curtilage of each dwelling. A maintenance plan and named responsible party are confirmed. Legal mechanism secured through property deeds.

4. Drainage Hierarchy and Strategy Approach

The National Standards for Sustainable Drainage Systems (SuDS) (Defra, June 2025) and MSDC requirements stipulate that surface water drainage must follow a strict hierarchy: infiltration to ground should always be explored first; only where this is not feasible should discharge to a watercourse be considered; and discharge to a public sewer should only be used as a last resort.

For this development, infiltration has been confirmed as fully feasible at the site through ground investigation and BRE Digest 365 compliant infiltration testing undertaken by Dr Elson. The soakaway drainage system is therefore the primary — and only — surface water discharge route. There is no discharge to a watercourse or to a public sewer for surface water. This represents the most sustainable outcome available and places this scheme at the top of the drainage hierarchy.

The use of permeable paving for all driveways and paths reinforces this approach further. Rather than collecting rainwater falling on hard-standing areas and conveying it to a drainage structure, the permeable paving allows rainfall to percolate directly into the ground through the paving sub-base. This means that the contributing area to the formal soakaway system is limited to the roof area only, reducing the size and complexity of the required drainage infrastructure and demonstrating genuine SuDS design thinking.

Foul water drainage follows a similarly straightforward hierarchy: connection to the existing public foul sewer in Lodgelands Highway is the preferred and proposed solution. No non-mains foul drainage is required or proposed.

5. Surface Water Drainage Design

5.1 Overview

Surface water from the two dwellings will be managed entirely by infiltration to soakaways. The soakaways have been designed by Dr Elson following site-specific infiltration testing in accordance with BRE Digest 365 (2016). Dr Elson's ground investigation report and soakaway design calculations accompany this submission and should be read alongside this strategy statement.

The soakaways will receive roof drainage only. All driveways and external paths are to be constructed as permeable paving, which manages rainfall at source through percolation into the sub-base and ground. There are no impermeable hard-standing areas draining to the formal soakaway system beyond the roofs of the two dwellings.

5.2 Infiltration Feasibility — Dr Elson's Testing

Infiltration feasibility has been established through ground investigation and permeability testing carried out by Dr Elson in accordance with BRE Digest 365 (2016). Testing was undertaken at the locations and depths of the proposed soakaway structures, ensuring that the results are representative of actual construction conditions.

The testing has confirmed that the ground at this site is suitable for infiltration drainage. The seasonal high water table has been confirmed to be more than one metre below the base of the proposed soakaway structures, satisfying the requirement set out in CIRIA C753 Section 25.3 and the National SuDS Standards. The infiltration rate derived from testing, with the appropriate BRE365 safety factor applied, has been used as the basis for soakaway sizing.

Full details of the infiltration testing — including test locations, trial pit logs, measured infiltration rates, safety factor applied, and groundwater data — are set out in Dr Elson's accompanying ground investigation and soakaway design report [Report Reference: to be inserted].

5.3 Soakaway Design

The soakaways have been designed by Dr Elson using the site-specific infiltration rates established through BRE365 testing. Each dwelling will be served by its own soakaway, receiving rainwater drainage from the roof of that dwelling via the rainwater downpipes and underground drainage connections.

The soakaways have been sized to accommodate the critical design storm event — being the 1 in 100-year rainfall event with the appropriate climate change uplift applied — without surcharge or overflow. The design also satisfies the half-drain time requirement, with 50% of the stored volume infiltrating within 24 hours for the 1 in 30-year storm event, in accordance with CIRIA C753 Section 25.7 and MSDC requirements.

The soakaways are located entirely within the curtilage of the development site. Each soakaway is positioned in the garden area of its respective dwelling, at a sufficient distance from the dwelling and any boundary structures to avoid risk of ground instability. Full details of soakaway type, dimensions, invert levels, and separation distances are provided on the drainage layout drawing and in Dr Elson's design report accompanying this submission.

5.4 Permeable Paving — Management of Hard-Standing Runoff at Source

All driveways and external paths serving the two dwellings will be constructed as permeable paving. This is a significant feature of the drainage strategy. Permeable paving systems allow rainfall to pass through the paving surface and into a granular sub-base, from which it percolates into the ground below. This means that rainfall falling on the hard-standing areas does not generate surface runoff and does not contribute to the formal drainage system.

In addition to managing runoff at source, permeable paving provides a degree of natural filtration as water passes through the sub-base material, removing suspended solids and other pollutants before the water reaches the ground. This is particularly relevant given that the driveways serve domestic vehicles, which can introduce oil and hydrocarbon traces to the paving surface. The permeable paving sub-base acts as a natural treatment layer, satisfying the water quality treatment requirements for this surface type.

The permeable paving will be designed and installed in accordance with the manufacturer's guidance and CIRIA C753 to ensure long-term drainage performance. The specification will confirm the surface void ratio, sub-base depth and composition, and geotextile layer specification required to achieve the necessary infiltration capacity. Further details are shown on the site layout drawing.

5.5 Rainfall Design Standards and Climate Change

The soakaway design has been carried out using rainfall data from the latest version of the Flood Estimation Handbook (FEH), which is the standard method required by MSDC. The design accounts for a range of storm return periods and durations to ensure the critical design event is captured. The Flood Studies Report (FSR) method has not been used.

Climate change has been taken into account in the design. In accordance with the latest Environment Agency Climate Change Allowances Guidance (February 2023), an appropriate uplift to rainfall intensity has been applied. The uplift has been selected to reflect the anticipated design life of the development, the appropriate vulnerability classification for residential development, and the relevant river basin district. This ensures that the soakaways will continue to perform adequately throughout the lifetime of the dwellings, accounting for the expected increase in rainfall intensity associated with a changing climate.

An urban creep allowance of 10% has also been incorporated into the design impermeable area, as required by MSDC. This accounts for any future minor additions to hard-standing (such as extensions to paving or outbuildings) that might occur under permitted development rights. The soakaways have been sized to accommodate this additional area, ensuring that the system remains adequate even if modest future changes are made to the site layout.

5.6 Water Quality Treatment

The drainage strategy provides appropriate water quality treatment for all surface water runoff generated by the development, consistent with the Simple Index Approach set out in CIRIA C753 and the requirements of the National Standards for Sustainable Drainage Systems (SuDS) (Defra, June 2025).

The two surface types contributing to the drainage system are assessed as follows:

- **Roof drainage (plain clay tiles):** Plain clay tiles are a low-risk surface presenting minimal pollution potential. They are classified as a low hazard surface type under the CIRIA C753 Simple Index Approach, generating runoff that is clean and requires only basic treatment before infiltration. The direct connection of roof drainage to the

soakaways, via gutters and underground drainage pipes, is appropriate and sufficient for this surface type. No additional treatment is required.

- Driveways and paths (permeable paving): Driveways serving domestic vehicles carry a moderate pollution risk due to occasional oil and hydrocarbon deposits. However, as the driveways and paths are constructed as permeable paving, rainfall is managed at source. The granular sub-base layer through which water percolates before entering the ground acts as a natural filter medium, providing treatment equivalent to or greater than that required by the Simple Index Approach for this surface type. No additional treatment infrastructure is required.

In combination, the treatment provided by the direct roof-to-soakaway connection and the filtration inherent in the permeable paving sub-base meets the mitigation requirements of the Simple Index Approach for all surface types present on the development. The combined mitigation index meets or exceeds the pollution hazard index, and all runoff receives appropriate treatment before reaching the ground.

5.7 Exceedance and Flood Risk

The soakaways have been designed to accommodate the critical 1 in 100-year plus climate change storm event without surcharge or overflow. In the unlikely event of a rainfall event exceeding this design standard, overland flow will be managed safely within the site using natural ground gradients.

The site layout and landscaping have been designed to ensure that any exceedance flows are directed away from the dwellings and away from neighbouring properties. Finished floor levels for both dwellings will be set at a minimum of 150mm above the surrounding external ground level and above any identified overland flow routes, as required by MSDC. This provides a robust buffer against internal property flooding under extreme events.

The permeable paving used on driveways and paths also contributes to exceedance resilience: during extreme events, water that cannot immediately infiltrate through the paving surface is temporarily stored within the sub-base void space, providing an additional buffer before any surface ponding occurs.

5.8 Amenity and Biodiversity

The drainage strategy for this development reflects the multi-functionality principles of the National Standards for Sustainable Drainage Systems (SuDS) (Defra, June 2025) and CIRIA C753 Chapter 4. Although the scheme is modest in scale, the choice of drainage components contributes positively to the character of the development:

- Permeable paving on driveways and paths avoids the hard, impermeable appearance of traditional paved surfaces and allows for a more naturalistic, visually attractive approach to the external areas. The surface material can be selected to complement the traditional character of the dwellings and the rural setting of Ardingly.
- Soakaways are located within the garden areas and will be covered with grass or planted surfaces, remaining invisible within the landscape. Their position within the gardens means they are integrated with soft-landscaped amenity space rather than competing with it.
- The absence of any above-ground drainage infrastructure such as ponds, attenuation basins, or detention basins — made possible by the use of infiltration — means that the gardens are unencumbered and available for full domestic use and planting.

- The overall approach — roof drainage to soakaways, permeable paving managing all other surfaces at source — reflects genuine SuDS design principles and avoids reliance on piped attenuation or below-ground storage tanks.

6. Foul Water Drainage

Foul water from both semi-detached dwellings will be discharged by gravity to the existing public foul sewer located in Lodgelands Highway. This is consistent with the approach approved under the previously discharged drainage condition for the earlier larger single-dwelling scheme, and represents the priority option for foul water disposal in accordance with the drainage hierarchy.

The connection to the existing public sewer will be made with either a saddle or mahole in Lodgelands Highway, details of which are confirmed on the drainage layout drawing accompanying this submission. The foul drainage system will operate entirely by gravity throughout the private drainage run from each dwelling to the sewer connection point. No pumping is required or proposed.

The foul drainage from each dwelling will be kept separate from the surface water drainage system. The scheme is a fully separate drainage arrangement, with no cross-connections between foul and surface water.

The sewerage undertaker has been contacted to confirm awareness of the proposal and acceptance of the foul water connection in principle. A copy of the relevant correspondence is included within the submission. The foul drainage connection will be constructed in accordance with Building Regulations Approved Document H and Sewers for Adoption (7th Edition).

No non-mains foul drainage (such as a septic tank, package treatment plant, or cesspool) is proposed or required for this development. There is no existing non-mains foul drainage infrastructure on the site that needs to be retained, upgraded, or replaced.

Discharge route:	Gravity connection to existing public foul sewer
Receiving sewer:	Existing public foul sewer, Lodgelands Highway
Connection point:	Existing manhole in Lodgelands Highway — see drainage layout drawing
System type:	Gravity separate foul drainage — no pumping required
Undertaker:	Southern Water
Non-mains system:	Not proposed — public sewer connection confirmed as viable

7. Maintenance and Long-Term Management

7.1 Approach to Maintenance

The drainage infrastructure serving this development has been kept as simple as possible, with very few components requiring ongoing maintenance. This is a deliberate design choice that reflects the principles of the National Standards for Sustainable Drainage Systems (SuDS) (Defra, June 2025) and CIRIA C753, which require drainage systems to be maintainable for the lifetime of the development.

The main drainage assets associated with this scheme — soakaways, permeable paving, and the foul drainage connection to the public sewer — are all well-understood, low-maintenance infrastructure types. Their maintenance requirements are straightforward and consistent with normal domestic property management obligations.

7.2 Asset Register and Maintenance Schedule

Asset	Location	Maintenance activity	Frequency / responsible party
Soakaway — Dwelling 1	Garden, Dwelling 1	Annual inspection for siltation or blockage. Remove silt if present. Check access cover is clear and functional.	Annual — Homeowner of Dwelling 1
Soakaway — Dwelling 2	Garden, Dwelling 2	Annual inspection for siltation or blockage. Remove silt if present. Check access cover is clear and functional.	Annual — Homeowner of Dwelling 2
Rainwater gutters and downpipes — both dwellings	Both dwellings	Clear leaf debris and blockages. Check all joints and fixings are sound. Ensure downpipe connections to underground drainage are clear.	Bi-annual (spring and autumn) — Homeowner
Permeable paving — driveways and paths	Both plots	Inspect surface for compaction or siltation of joints. Vacuum sweep or jet wash if surface drainage performance declines. Avoid use of sand to grit in winter — use grit chippings only.	Annual inspection; remedial works as required — Homeowner
Foul drainage — private run to sewer	Within curtilage to highway boundary	Annual check that manholes and inspection chambers are clear and free from root ingress or silt build-up.	Annual — Homeowner / Sewerage undertaker post-adoption
Foul sewer connection — Lodgelands Highway	Lodgelands Highway	Maintained by sewerage undertaker following adoption.	Sewerage undertaker

The maintenance schedule above is consistent with the recommendations in CIRIA C753 Table 32.1 and is proportionate to the scale and nature of the development. The requirements are no more onerous than normal domestic property maintenance obligations and are entirely reasonable for individual homeowners to carry out.

7.3 Responsible Party and Legal Mechanism

Each dwelling will be sold with its own curtilage drainage infrastructure — being the soakaway, the rainwater drainage connections, and the permeable paving within that plot. Responsibility for maintaining these assets will rest with the individual homeowner of each dwelling. This responsibility will be confirmed in the title deeds for each property at the time of sale, creating a binding and enforceable maintenance obligation on current and future owners throughout the lifetime of the development.

The private foul drainage run from the dwellings to the connection point at Lodgelands Highway will be offered for adoption to the relevant sewerage undertaker under Section 104 of the Water Industry Act 1991. Upon adoption, ongoing maintenance of the adopted section will become the responsibility of the sewerage undertaker. Until adoption is confirmed, maintenance responsibility rests with the developer and subsequently the homeowners.

There is no shared surface water drainage infrastructure between the two dwellings — each property has its own independent soakaway — and therefore no shared maintenance arrangement is required for surface water drainage.

8. MSDC Compliance Checklist

The following tables summarise compliance with the MSDC Detailed Drainage Design Checklist (v2.0, November 2025) for both surface water and foul water drainage. All items are addressed within this strategy statement and the accompanying submission documents.

8.1 Surface Water Drainage Checklist

Checklist Requirement	Status	Reference
Greenfield runoff rate (Qbar) — FEH method	Compliant	Section 5.5 / Dr Elson calcs
Infiltration testing — BRE365 compliant	Compliant	Section 5.2 / Dr Elson report
Groundwater monitoring — seasonal high water table >1m below soakaway base	Compliant	Section 5.2 / Dr Elson report
Catchment areas and drainage sub-catchments shown on plan	Compliant	Drainage layout drawing
Climate change allowance — EA guidance applied	Compliant	Section 5.5
Urban creep allowance — 10% uplift applied	Compliant	Section 5.5
Design rainfall — latest FEH used; FSR not used	Compliant	Section 5.5 / Dr Elson calcs
Cv = 1.0 applied to all impermeable surfaces	Compliant	Dr Elson calcs
Hydraulic calculations — 1in1, 1in30, 1in30+CC, 1in100+CC	Compliant	Dr Elson calcs
Soakaway design — half-drain time <24 hours for 1in30-year event	Compliant	Section 5.3 / Dr Elson calcs
SuDS layout plan — levels, flow directions, labels	Compliant	Drainage layout drawing
Longitudinal / cross sections for soakaways and drainage runs	Compliant	Drainage layout drawings
Exceedance flow routing shown on plans	Compliant	Section 5.7 / Drainage layout drawing
Finished floor levels — minimum 150mm above ground level	Compliant	Section 5.7
Water quality — Simple Index Approach confirmed	Compliant	Section 5.6
SuDS component details — type, size, inlet/outlet, levels	Compliant	Section 5.3 / Dr Elson / drawings
Permeable paving — specification and drainage to ground confirmed	Compliant	Section 5.4
Maintenance plan — asset register and schedule	Compliant	Section 7.2
Responsible maintenance party and legal mechanism confirmed	Compliant	Section 7.3
All SuDS features within red line boundary	Compliant	Drainage layout

		drawing
No SuDS features within flood zone or surface water flow path	Compliant	Flood Zone 1 — confirmed
Discharge to sewer for surface water	N/A	Infiltration only — no sewer discharge
Discharge to watercourse	N/A	Infiltration only — no watercourse discharge

8.2 Foul Water Drainage Checklist

Checklist Requirement	Status	Reference
Foul drainage layout — inverts, pipe sizes, gradients, connection points	Compliant	Drainage layout drawing
System type — gravity confirmed; no pumping required	Compliant	Section 6
Peak foul flow rate	Compliant	Drainage layout drawing
Public sewer connection — location and manhole confirmed	Compliant	Section 6 / Drainage layout drawing
Separate foul and surface water systems confirmed	Compliant	Section 6
Non-mains foul drainage — not proposed	N/A	Section 6

9. Conclusions

This Drainage Strategy Statement demonstrates that the proposed development of a pair of three-bedroom semi-detached dwellings at Land at 1A Lodgelands, Ardingly, West Sussex is fully compliant with all requirements for condition discharge at Mid Sussex District Council.

The drainage strategy is simple, robust, and genuinely sustainable. Surface water is managed entirely through infiltration to soakaways designed by Dr Elson following BRE Digest 365 compliant testing. Permeable paving on all driveways and paths means that the only impermeable surface draining to the soakaways is the roof, minimising the drainage burden and providing water quality treatment at source for all hard-standing areas. Foul water drains by gravity to the existing public sewer in Lodgelands Highway, consistent with the previously approved drainage strategy for this site.

The approach aligns with the drainage principles established under the previously discharged drainage condition for the earlier single-dwelling scheme, updated appropriately to reflect the proposed two-dwelling development. All five National SuDS Standards (Defra, June 2025) are met. The scheme satisfies the requirements of the MSDC Detailed Drainage Design Technical Summary and Checklist (v2.0, November 2025), the West Sussex LLFA Surface Water Management Policy, and the EA Climate Change Allowances Guidance.

The drainage infrastructure is straightforward, low-maintenance, and appropriate to the domestic scale of the development. Long-term maintenance responsibilities are clearly assigned to the individual homeowners through the title deeds, with the foul drainage connection offered for adoption under Section 104 of the Water Industry Act 1991.

It is respectfully submitted that this strategy statement, together with the accompanying ground investigation and soakaway design report by Dr Elson and the drainage layout drawings, provides a complete and technically robust package for the discharge of the drainage planning condition.]