



**JEREMYS COTTAGE,
BOLNEY, HAYWARDS HEATH**

**DRAINAGE STRATEGY &
MANAGEMENT & MAINTENANCE PLAN**

LANDIVAR ARCHITECTS

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Date: 10th February 2026

1.00 Introduction

- 1.01 vkhp consulting limited has been instructed to prepare a Drainage Strategy and Management & Maintenance Plan for a proposed residential redevelopment at Jeremys Cottage, Bolney, Hayward Heath.
- 1.02 The site is rectangular on plan and is located at National Grid Reference TQ 26452 24677, occupies an approximate area of 1.040 hectares. The site is a greenfield site containing a sand school and outbuilding.
- 1.03 The Proposals are to remove the sand school and to construct 2 new residential dwellings.
- 1.04 Surface water run-off from the new development will be collected and addressed by means of sustainable urban drainage systems (SuDS),
- 1.05 Greenfield run-off rate estimation using uksuds by hr Wallingford indicates the Mean Annual Flow (Q_{bar}) would be 5.3l/s
- 1.06 The site is located in a sparsely populated area, on a sloping site.
- 1.07 The Environmental Agency maps indicate that the proposed development is located within Flood Zone 1, therefore there is no recognised risk of flooding to the site.

2.00 Existing Drainage

- 2.01 There are no Public Sewers in close proximity to the development.
- 2.02 Existing surface water discharges to ground. There are ponds and watercourses located south of the proposed development.
- 2.03 The existing development is mostly undeveloped with surface water discharging freely to ground.

3.00 Site Geology

- 3.01 A desk top study using Geology of Britain data indicated that the proposed development is found to be located on Upper Tunbridge Wells Sand-Sandstone and Siltstone.
- 3.03 The Sandstones are generally permeable, acting as aquifers, while interbedded silty/clayey layers act as aquitards. Permeability is often dictated by secondary factors like clay content or cementation, with high permeability localized in cleaner sandstone units.
- 3.04 Subject to Infiltration testing to BRE 365 it is likely that Infiltration rates would not be considered sufficient for conventional soakaways.

4.00 Development Drainage Proposals

Surface Water

- 4.01 For the consideration of the surface water drainage generated by this proposed development, the principal factor is the impermeable roofs area and hard paved areas.
- 4.02 The properties of Upper Tunbridge Wells Sand would suggest that infiltration is achievable, subject to infiltration testing to BRE365.
- 4.03 The anticipated rate of discharge from an infiltration system would range from 9.16×10^{-5} m/s to 6.9×10^{-6} m/s. For the purpose of this report we have assumed the low range of the infiltration rates.
- 4.04 The external driveway is proposed to be a free draining permeable paving. Causeway Flow calculations reference 683826-01 indicates that for the peak 1 in 100 year rainfall event with a 40% allowance for climate change would require a sub-base depth of 399mm.

- 4.05 The impermeable roof area is intended to be drained with conventional roof guttering and downpipes, directed into an underground surface water drainage system via 100mm and 150mm diameter pipes at a gradient not less than a 1:100 to ensure self-cleansing velocities. To reduce the risk of contaminants and silt entering into a SUD's features, all water will pass through a silt trap prior to discharge.
- 4.06 Plot 1 has an area of 440m² and surface water is proposed to be drained via ring soakaways located in the rear garden. Causeway Flow calculations reference 683826-02 indicates that for the peak 1 in 100 year rainfall event with a 40% allowance for climate change would require 2 x 1800mm diameter ring soakaways with a 3600 x 3600 pit size to a depth of 1500mm below the incoming pipe.
- 4.07 Plot 2 has an area of 300m² and surface water is proposed to be drained via ring soakaways located in the rear garden. Causeway Flow calculations reference 683826-03 indicates that for the peak 1 in 100 year rainfall event with a 40% allowance for climate change would require a 1 x 1800mm diameter ring soakaways with a 3600 x 3600 pit size to a depth of 2000mm below the incoming pipe.
- 4.08 Surface water calculations have been provided for rainfall events up to and including the 1 in 100 year return period with an additional allowance of 40% for climate change. These indicate that there is no surface water flooding during the 1 in 100 year + 40% critical storm with peak discharge rates indicating no flooding.

Foul Water

- 4.09 There are no recorded foul water sewer in proximity to the development.
- 4.10 Foul water drainage from the proposed development will be treated in a Package Treatment Plants and discharge to the watercourse. These will be owned and maintained by the property owners.
- 4.11 The daily volume of discharge from each Package Treatment Plant based on British Waterways, Code of Practice, Flows and Loads is estimated to be approximately 1.0m³ per dwelling.

4.12. The discharge and installation of the Package Treatment Plant needs to comply with The Environment Agencies General Binding Rules.

4.13 Drawing 683826-100 details the proposed drainage layout for the development.

5.0 Protection during Construction Phase

5.01 During construction, surface water will continue to discharge as per the existing site. It is recommended that the access road is regularly cleaned during the construction phases.

5.02 The following measures will be employed on-site during construction:

- Stockpiles of materials to be located away from any watercourse or site drainage system. Protective coverings will help prevent runoff stripping the stockpile
- Plant and wheel washing are to take place in designated locations
- The use of oils and hydrocarbons on construction sites create an inherent risk of leakages and spillages, which could potentially lead to pollution incidents. Measures are to be taken to prevent oil and hydrocarbons becoming entrained in surface runoff, such as:
 - i) Appropriate maintenance of machinery and plant
 - ii) Drip trays
 - iii) Regular checking of machinery and plant for oil leaks
 - iv) Correct storage facilities
 - v) Checking for signs of wear and tear on tanks
 - vi) Care with specific procedures when refuelling
 - vii) Designating areas for refuelling
 - viii) Emergence spill kit located near a refuelling area
 - ix) Regular emptying of bunds
 - x) Tanks located in secure areas to stop vandalism

6.00 Maintenance and Management

Maintenance Activity	Remedial Action	Inspection Frequency]	
Gullies and rainwater inlets	Clear out sediment or detritus found in the chambers. If sediment is found in the pipe network this should be cleared out with rodding equipment or professional jetting techniques	Pre completion	Monthly
		Post Completion-up to 1 year	Quarterly
		On- going	Annually
Silt Traps	Clear out sediment or detritus found in the chambers. If sediment is found in the pipe network this should be cleared out with rodding equipment or professional jetting techniques	Pre completion	Monthly
		Post Completion up to 1 year	Quarterly
		On going	Annually
Inspect Catch-pits & Chambers	Clear any sediment or detritus found in the chamber/s. If sediment has built up within the pipe network, this should be cleared with rodding equipment or professional jetting techniques.	Pre-completion	
Package Treatment Plant	Professional Servicing including: - 1. Mechanical Checks 2. Biological Health 3. Safety & Alarms 4. Effluent Quality Desludging	Annually	
		Every 6 -12 months	

7.00 Exceedance Flows

7.01 The site falls from the west to the east and from the north to the south. Any exceedance flows would flow away from the proposed development and towards open fields, finally making its way to the watercourse.

7.02 Drawing 683826-100 indicates the directions of any surface water exceedance.