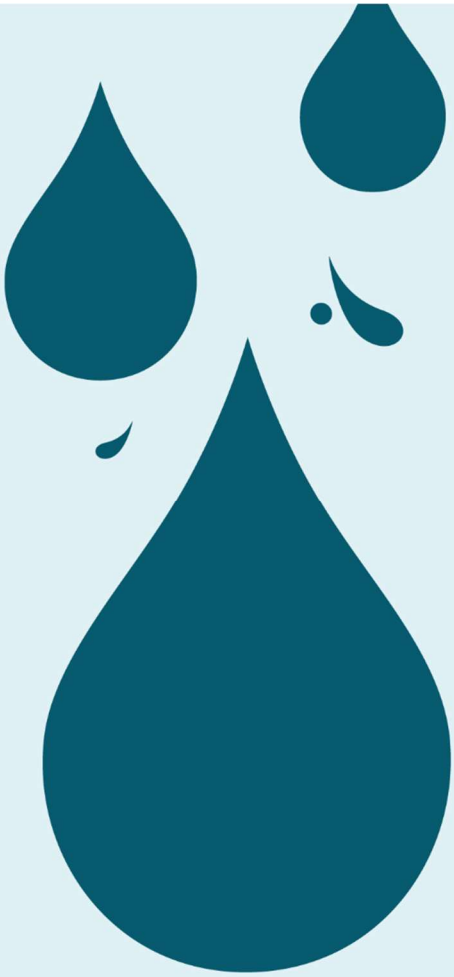
Planning Guidance for Developers

Deep-Bore Soakaways Technical Note



Hampshire County Council

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Hampshire County Council

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Notice

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This document has **7** pages including the cover.

Document history

Revision	Purpose description	Originated	Reviewed	Authorised	Date
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Rev 2.0					
Rev 3.0					

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Contents

Tables

Figures

1. Aims and Objectives

This guidance is for anybody proposing to submit technical drainage information as part of a planning application for major development with surface water drainage. This document is written to provide more detailed support for development proposing to use deep-bore soakaways as their site's drainage destination. It should be read in conjunction with Hampshire County Council's Planning Guidance document.

The level of detail required for supporting information varies depending on the type of planning application being made.

2. National and Local Positions

2.1. National Standards for Sustainable Drainage Systems

In July 2025, the government introduced the National Standards for Sustainable Drainage Systems (SuDS), replacing previous guidance. These standards guide developers, designers, and local authorities, and will apply to planning applications in Hampshire from January 2026. In relation to deep-bore soakaway the National Standards for SuDS 1.18 state:

'The use of deep-bore infiltration features is not considered to follow a 'SuDS Approach' and shall be by exception and an agreement in principle with the relevant risk management authority provided to the approving body.'

Hampshire County Council's position

'Hampshire County Council generally opposes the use of deep-bore soakaways. They are not considered to follow a SuDS approach. Deep-bore soakaways should only be used as an exception where all other options have been fully explored, and additional rigorous protections have been included.'

3. Deep-Bore Soakaway Guidance

3.1. What is a deep-bore soakaway

A deep-bore soakaway is a vertical borehole drilled into permeable strata beneath impermeable layers to drain a development site. They are typically deeper than 5 m and sometimes up to tens of meters deep. It is used where shallow infiltration is not possible, converting runoff sites into infiltrating ones, unlike standard soakaways that maintain pre-development infiltration albeit in more concentrated locations.

3.2. What are the problems with deep-bore soakaways

Deep-bore soakaways pose several issues that can make it difficult to ascertain accurately at planning their viability and face many issues that may reduce their long-term performance in practice. Below is a list of some of the concerns around deep-bore soakaways:

- The infiltration rate is hard to determine accurately.
- Borehole sides can smear during construction, reducing performance in practice.
- It is not clear whether maintenance is even possible due to the extreme depths involved and requirement for specialist equipment.
- If the borehole fails or collapses, additional boreholes may need to be drilled, with potential limitations on space and potentially significant cost implications.
- Risk of creating direct pollution pathways to groundwater. Groundwater pollution is extremely difficult to remediate so prevention is key.
- May reduce water flow to dependent habitats.
- Lack of official technical guidance to set out industry best practice for their design, construction, and maintenance.

For the above reasons, Hampshire County Council will object to any developments proposing deep-bore soakaways if we believe that there may be other options for draining the site or alternatives have not been fully explored.

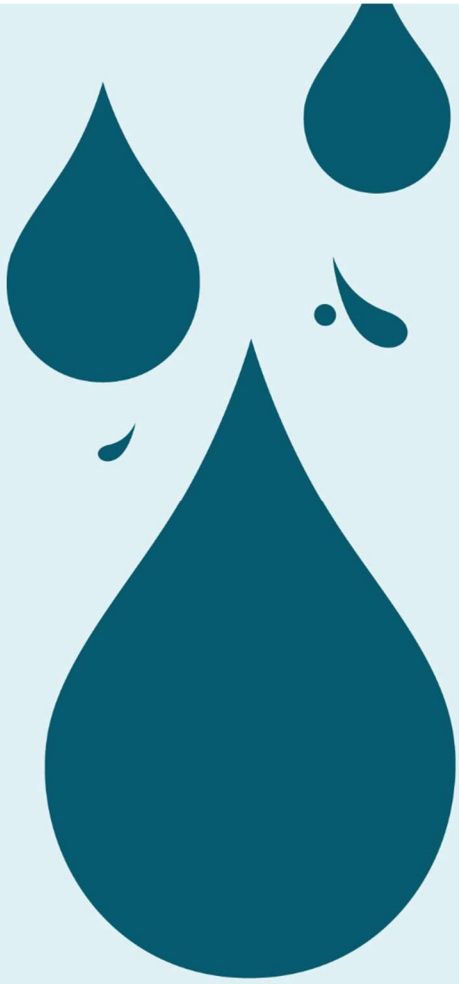
3.3. When should deep-bore soakaways be considered

Deep-bore soakaways should always be a last resort. The following should be considered before choosing deep-bore soakaways as a drainage destination:

- Developers must exhaust all other drainage options, including extending the surface water sewer network. We will use a rule of thumb of 30m extension per dwelling to determine a reasonable distance for a surface water sewer extension, equivalent to the 30m rule used for foul sewer connections. Evidence should be provided to show this option has been considered.
- Developers must use shallow infiltration wherever possible, including adjustments to site layout and use of pumping to avoid deep features.
- The area reliant on deep-bore drainage must be the minimum possible.
- Deep-bore soakaways will not be supported on contaminated land, where they risk groundwater or abstraction sites if maintenance falls to homeowners or if located upstream of water-dependent habitats where this is likely to reduce runoff beyond safe environmental levels (National Standards for SuDS 1.9).

3.4. Design considerations

- Falling head tests must be undertaken at varying depths to demonstrate the earliest opportunity to achieve the required infiltration.
- In-situ testing to be undertaken as part of installation to verify infiltration rates and provide verification.
- Evidence will be required to demonstrate a suitable separation from the highest likely groundwater level. In some circumstances, calibration with existing Environment Agency boreholes may help with this.
- Designs should apply a safety factor of 10 (instead of 2) unless justified otherwise due to unreliable infiltration rates and incompatibility with standard infiltration design standards. Any impact this has on storage must be provided upstream of the borehole.
- Bore-holes must be the minimum depth possible to minimize the risk to groundwater.
- Additional silt and pollution controls are required to reduce risks.
    - Additional silt traps or equivalent must be provided upstream of each borehole. This is on top of any requirements necessitated by the simple index approach. This is to minimize the need for maintenance to the borehole itself.
    - Features to contain and isolate pollutants must be provided before entering deep features. This is to protect the borehole in an emergency pollution incident.
- Borehole capacity cannot be counted towards surface water storage. This is to keep bore-hole depths to a minimum and to ensure that there is surface water storage available in a pollution incident when the borehole has been ‘shut-off.’
- Additional information will be required in relation to maintenance, enhanced pre silt removal checks and provisions for long term maintenance / replacement (a S106 may be appropriate).
- Prior to occupation, it is likely that a verification report will be needed, demonstrating that the borehole is functioning as designed.



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