

From: **David Walker**

Date: Tue, 30 Jun 2026 at 21:08

Subject: 66a Ladydell Road Infiltration Testing WSP Letter Response

To: jacqueline.fox@adur-worthing.gov.uk <jacqueline.fox@adur-worthing.gov.uk>

Hello Jacqueline,
I hope you are well.

Please could you confirm receipt of this email?

My name is David Walker and I have been contacted by my client, Darren Howorth of Beachview Estates Ltd, who has asked me to respond to the comments made by WSP in their correspondence dated 26 June 2026 (attached: *View Document (4).pdf*).

In their letter, WSP state that the 1% Annual Exceedance Probability (AEP) drainage calculations, including the appropriate climate change allowance, have not been provided. However, you will see from the email forwarded to you on 15 June 2026 (attached: *Fwd: 66 Ladydell Road Infiltration Test Results*) that two separate reports were submitted:

- BRE365 Soakage Test Report; and
- Drainage Calculations Report demonstrating compliance with the 1% AEP event, including the required climate change allowance.

Could you please confirm whether WSP received both reports?

For completeness, I have also attached the drainage layout drawing provided by the Client (*25-Condition Discharge Plan 11072025.pdf*), which illustrates the drainage features installed on site.

WSP also raise concerns that the final soakage test data point (1.75 m bgl at 900 minutes (15 hours)) was extrapolated. Whilst this is correct, I consider that the extent of testing required to fully satisfy BRE365 in this instance would be disproportionate to the level of risk posed, particularly given that three full tests would each require monitoring over approximately 15 hours.

It is important to recognise that this is a retrospective application. The soakaway has already been constructed and has demonstrated satisfactory performance under actual rainfall conditions, with no evidence of flooding, prolonged ponding or operational failure.

Consequently, the purpose of the assessment was to verify the performance of the existing drainage asset rather than determine the suitability of a new infiltration location.

Whilst BRE Digest 365 recommends repeated testing when designing new soakaways, I consider that the demonstrated operational performance of the existing soakaway, together with a controlled infiltration test analysed using BRE365 principles, provides a proportionate and robust basis for confirming that the drainage system is functioning effectively and managing surface water without causing unacceptable flood risk or environmental harm.

The analysis submitted on 15 June 2026 incorporated a number of conservative assumptions and sensitivity checks. For example, using the measured infiltration period of 450 minutes produces an infiltration coefficient (f) of 6.64×10^{-6} m/s. Extending the infiltration period to the extrapolated 900 minutes reduces the coefficient to 3.0×10^{-6} m/s, which remains within the same order of magnitude and still equates to an adequately sized feature to account for Climate Change. These sensitivity checks demonstrate that the

conclusions of the assessment are robust and are not materially affected by the extrapolation of the final data point.

I therefore hope you agree that sufficient evidence has been provided to support a proportionate approach to the assessment of an existing soakaway that has already demonstrated satisfactory performance in service.

Should you have any questions, or if any additional information would assist, please do not hesitate to contact me.

Kind regards,

David

David Walker (MSci, FGS, IAH)

Director & Hydrogeologist

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