

South Oxfordshire District Council
Development Control
South Oxfordshire District Council 135
Eastern Avenue
Mitlon Park
Abingdon
OX14 4SB

Our ref: WA/2024/131698/02-L01
Your ref: P24/S2642/FUL
Date: 26 February 2025

Dear Sir/Madam,

ENGINEERING OPERATIONS ASSOCIATED WITH GROUND STABILISATION WORKS. THAMES FARM, READING ROAD, LOWER SHIPLAKE, RG9 3PH

Thank you for consulting the Environment Agency on the amended plans for the above proposal. We have reviewed relevant documents, and our comments are set out below:

Documents reviewed:

- **ENVIRONMENTAL STATEMENT ADDENDUM APPENDIX 6.2A. Hydrogeological impact assessment for proposed development works at Shiplake. Date: 13/12/2024 Status: Final Reference: 30438R7.1 © H Fraser Consulting Ltd 2024 Including:**
 - Appendix A - 30438TN3 Shiplake Detailed Quantitative Risk Assessment (DQRA) 13/12/2024. HFCL 2024
 - Appendix D - 30438TN1 Shiplake western ground conditions Version: 1 Date: 13/12/2024. HFCL 2024
- **Hydrogeological impact assessment for ground stabilisation works, Lower Shiplake. Date: 17/12/2024 Status: Final Reference: 30438R6.1 © H Fraser Consulting Ltd 2024**
- **ENVIRONMENTAL STATEMENT ADDENDUM APPENDIX 2.1A. THAMES FARM, SHIPLAKE FLOOD RISK ASSESSMENT AND DRAINAGE STRATEGY TAYLOR WIMPEY 18 DECEMBER 2024. Abley Letchford Partnership Limited. Document Reference: A253-R010 v6.**

The Environment Agency objected to the proposal in November 2024. The Environment Agency's previous objection (our ref: WA/2024/131698/01-L01, dated 20 November 2024) was comprised of two parts. The documents above have been submitted subsequently and have provided clarifications and amendments. We have reviewed these documents and to an extent they address our concerns. **We are now in a position to remove our objection, however this is subject to planning conditions which we recommend below. Without these planning conditions, we would object to the proposed development.** Our latest comments relating to our earlier objections are set out below in the same order:

1. **Grout composition**

We note that this composition has now been modified to not use any pulverised fuel ash (PFA) or other man-made materials. The Hydrogeological Impact Assessment (HIA) for ground stabilisation works (17.12.24) states:

145 The compaction grout mix will comprise cement, gravel and sand, together with bentonite so avoiding the introduction of any man-made materials that give rise to environmental concerns affecting the groundwater quality.

In terms of risks to groundwater quality from the grout, the HIA states:

154, bullet point 2: It is not known whether the type of grouting operation proposed is likely to create turbidity (suspended fine sediment in groundwater).

AND

99 The exact extent of the encountered soft ground is still unknown and is therefore speculatively positioned on the cross section. It can be seen that even if grouting is well above the structured Chalk and the water table, there is a small possibility that grout could be forced through the soft ground to below the water table.

AND

111 If grout enters fractures/voids below the groundwater table it is possible, although by no means certain that this may cause turbidity in the groundwater, either caused by particulates from the grout itself or from erosion of the Chalk matrix.

It cannot be known in advance how much, if any, grout will end up being placed below the water table or how much erosion of the Chalk matrix will occur. The report discusses reasons why this is not considered likely, and if it did occur, why it would not present a high risk of causing turbidity in the groundwater. As a precautionary measure, the detailed monitoring scheme (below) will need to have sufficient capability to detect any resultant turbidity in groundwater.

1.2 **Monitoring**

We note that there is now a monitoring programme proposed in Hydrogeological impact Assessment (HIA) for ground stabilisation works (17.12.24), which states:

7 MONITORING:

146 It is recommended that a groundwater monitoring programme is put in place for the duration of the grouting works. The outline of the proposed monitoring scheme is detailed here.

We note that this is an outline programme, and that a **Source protection Strategy** has also been indicated:

150 The monitoring and sampling data will be assessed following the initial three months of baseline monitoring. Trigger and action levels to implement during the grouting operations will be determined from the baseline data. A Source Protection Strategy will be developed as a condition of planning, detailing the monitoring baseline, monitoring frequency, parameters, duration, reporting arrangements, and trigger and action levels, along with mitigation measures to be followed if action levels are exceeded.

This detailed source protection strategy has not been submitted at this stage, so we are unable to review any details. We note that the monitoring locations outlined are provisional. However, we have concerns that the outline locations do not sufficiently cover the downgradient boundary of the site, which, from the groundwater contours is approximately to the north-east of the site in the direction of the public water supply (PWS). If this development is approved, it would have to be subject to a number of planning conditions, and we would request that we are consulted on any detailed monitoring strategy (by way of discharge of condition). As part of that design, we also request a new single figure is produced which combines the groundwater investigation

locations, the areas to be grouted and the proposed infiltration area(s), groundwater flow directions and the groundwater monitoring network locations.

The strategy must be designed to detect any adverse impacts in advance of impacts to the PWS, and that the proposed mitigation measures are suitable. Any off-site downgradient monitoring for groundwater quality that can be set up, is also strongly recommended.

We would also expect that all grout volumes used are accurately measured and recorded, and if there are any deviations beyond the expected volumes used, this should be flagged to our attention immediately, works stop, and procedures reconsidered. This information should all form part of the monitoring programme/source protection strategy, as required by our proposed condition 1 below.

Environment Agency position

Condition 1

The development hereby permitted may not commence until such time as a scheme for the proposed scheme for monitoring/ Source protection Strategy has been submitted to, and approved in writing by, the local planning authority

The scheme shall, where necessary, be supported by detailed calculations and include a programme for future maintenance if needed. The scheme shall be fully implemented and subsequently maintained, in accordance with the timing/phasing arrangements embodied within the scheme, or any details as may subsequently be agreed, in writing, by the local planning authority.

Reason

To ensure that the proposed development, including mineral extraction, does not harm the water environment in line with paragraph 187 of the National Planning Policy Framework, and Position Statements A & B of the [‘The Environment Agency’s approach to groundwater protection’](#)

Informative: Permitting:

This proposed grouting activity **proposal may qualify as a groundwater activity** and therefore an Environmental Permitting Regulations permit would be required (this is irrespective of any planning decisions).

This development **may** require a permit under the Environmental Permitting Regulations (England and Wales) 2016. [The Environmental Permitting \(England and Wales\) Regulations 2016](#).

2. Surface water infiltration

The long-term strategy has now been changed (see **APPENDIX A and C, HFCL 2024**), to relocate the proposed permanent infiltration area from the east, to the far west of the site, where there is thicker unsaturated thickness and where grouting work is not indicated to be needed (Figure 2.4 Site area requiring ground improvement). From a controlled waters perspective this is generally a better location for this infiltration area due to the thicker unsaturated zone. However, it appears to rely on the waters being collected in the east and pumped upgradient to the west to the infiltration area. This does not appear to be especially sustainable, and we have not seen any sustainability appraisal, or risk assessment if the pumping system were to fail.

From a controlled waters perspective, we prefer the western infiltration area for the general reasons above, however, it is subject to a dedicated risk assessment in line with position G13 of [The Environment Agency’s approach to groundwater protection](#):

Where infiltration SuDS are proposed for anything other than clean roof drainage (see G12) in a SPZ1, a hydrogeological risk assessment should be undertaken, to ensure that the system does not pose an unacceptable risk to the source of supply.

We have reviewed the submitted dedicated hydrogeological risk assessment DQRA for SuDS infiltration for this site. The method and assumptions of this work are broadly acceptable, with the quantitative assessment showing a low risk of impacts to groundwater quality, under the conservative assumption of no SuDS treatment.

However, for assurance we would endorse that an amended report is produced, showing outcomes of a sensitivity assessment of the key modelling parameters to provide more confidence in the predicted outcome and conclusions.

We can comment further on this application once an updated hydrogeological risk assessment specifically for SuDS is submitted. Note that this is also related to the application for discharge of CONDITION 11 of outline planning permission (Ref: P16/S0970/O (See our reply REF WA/2025/131942/01 – dated 26 February 2025)/

Condition 2

No drainage systems for the infiltration of surface water to the ground are permitted other than with the written consent of the local planning authority. Any proposals for such systems **must be supported by an updated hydrogeological risk assessment of the risks to controlled waters**. The development shall be carried out in accordance with the approved details.

Reason

To ensure that the development does not contribute to and is not put at unacceptable risk from or adversely affected by, unacceptable levels of water pollution caused by mobilised contaminants. This is in line with paragraph 187 of the National Planning Policy Framework.

Advice to applicant

The Environmental Permitting (England & Wales) Regulations 2016 make it an offence to cause or knowingly permit a groundwater activity unless authorised by an environmental permit which we will issue. A groundwater activity includes any discharge that will result in the input of pollutants to groundwater.

We do not have enough information to know if the proposed development can meet our requirements to prevent, minimise and/or control pollution.

The development proposal is to place grout into the ground within an SPZ 1. To reduce the risks to people and the environment and obtain a permit,

- the suitability of the location with respect to the protection of groundwater will need to be considered.
- the method and grout composition and the depths of placement relative to groundwater elevations will need to be considered.

We will not be able to determine a permit application until this information has been provided. If you believe that this proposal meets exemptions from the Environmental Permitting Regulations (England and Wales) 2016, please indicate why this is the case.

We recommend that the developer considers parallel tracking the planning and permit applications as this can help identify and resolve any issues at the earliest opportunity. Parallel tracking can also prevent the need for post-permission amendments to the planning application. We would welcome a joint discussion with the applicant and planning authority to discuss this further.

Further guidance can be found at <https://www.gov.uk/government/collections/risk-assessments-for-specific-activities-environmental-permits>

Please send us a copy of any decision issued in respect of this application.

Yours faithfully

Judith Johnson
Planning Specialist

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