

TECHNICAL NOTE

Site Name: Fontwell Avenue, Fontwell



Note Number: TN001
Date: 07th December 2020
Subject: Condition 13 – Risk to Controlled Waters
Revision: B
Undertaken by: Christian O'Brien MEng (Hons) GMICE, Engineering Manager

Item	Subject
1.	<u>Introduction</u> This Technical Note has been produced to address matters raised by Condition 13 of the Outline Application (Reference: WA/22/15/OUT) in relation to the Land East of Fontwell Avenue, Fontwell, West Sussex, BN18 0SB. Condition 13 states: <i>No infiltration of surface water drainage into the ground is permitted other than with the express written consent of the local planning authority, which may be given for those parts of the site where it has been demonstrated that there is no resultant unacceptable risk to controlled waters. Development shall be carried out in accordance with the approval details.</i> This Technical Note therefore aims to signpost those reviewing the application to the appropriate report findings that directly address the matters of concern raised by Condition 13. The Report that will be referenced to within this Technical Note is: • LEAP Environmental - Phase II Intrusive Site Investigation Report dated 27th June 2018 (Report Reference: LP1649)
2.	<u>Preliminary Environmental Risk Assessment</u> Within Section 9 of the Report, an Environmental Risk Assessment was undertaken to assess the potential risk involved with source of potential contamination, receptors and the pathway link between them. Section 9.6 of the Report (page 28) states the following within the Conclusions of the Environmental Risk Assessment: • The Principal aquifer and therefore the groundwater on site has been identified as a high sensitivity receptor due to the location of some of the site within a Zone I Source Protection Zone. However, based on the BGS logs, about 10m of head and Lambeth Group soils are anticipated overlying the chalk, which will provide some protection from near surface sources of contamination. The site therefore poses a low to moderate risk to groundwater;

3.	<u>Risk Assessment on Controlled Waters</u> Within Section 35.2 of the Report (page 64), a Risk Assessment was undertaken on the Controlled Waters following the instructive and more detailed site investigation than the Preliminary Risk Assessment detailed above. Section 35.2 states the following: 35.2 Controlled Waters 35.2.1 Groundwater The Principal aquifer and therefore the groundwater on site has been identified as a high sensitivity receptor due to the location of the site within a Zone 1 Source Protection Zone. The nearest groundwater abstraction is located 127m south west of the site and is licensed as a Potable Water Supply from Eastergate Pumping Station operated by Portsmouth Water Ltd. The measured levels of potential contaminants encountered soils are negligible, when compared to GACs for a Residential end use. Furthermore, no visual or olfactory evidence of PHC were encountered during the site investigation. On this basis, the ground conditions on site are not considered to pose a significant risk to groundwater. This assessment should be reconsidered if significant contamination is identified at a later stage. 35.2.1 Surface Water The nearest surface water feature is an unnamed tertiary river, located approximately 50m east of the site. However, based on the recorded concentrations of contaminants the site is not considered to pose a risk to surface water receptors.
4.	<u>Proposed Surface Water Drainage</u> In accordance with the information submitted as part of the Reserved Matters application and information submitted under Condition 12 of the Outline Application, a summary of the propose infiltration is detailed as follows: Infiltration tests and groundwater monitoring show that the site is suitable for the use of soakaways and other sustainable infiltration drainage methods. The principle of Sustainable Drainage Systems (SuDS) has been adopted for the whole site, calculations have been carried out using Micro Drainage with a storm return period of 100 years and an allowance of 40% for climate change plus 10% urban creep. Surface water from a proportion of the site will be infiltrated via the infiltration basin in the southwest corner. The remaining dwellings will be drained by their respective standalone soakaways. All roads, footways and parking courts and associated parking bays to dwellings are to be drained directly by infiltration into permeable paving with a granular sub-base.

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	The proposed development will utilise SuDS techniques to provide treatment trains which safeguard water quality. The strategy of managing surface water runoff at source will also ensure that groundwater levels are not compromised and that the potential yield of surface and groundwater resources are not reduced.
5.	<u>Conclusion</u> Based on the above noted Sections of the Phase II Intrusive Site Investigation Report undertaken by LEAP Environmental as Dandara's Geo-Environmental Consultant and the proposed surface water strategy, it provides demonstrable evidence that the site is not considered to pose a risk to both groundwater and surface water.