

26 Redington Road

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## BIA Screening

Prepared by

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## 1 Introduction

This BIA Screening report has been produced to cover the screening process required within a BIA as set out by Camden Planning Guidance – Basements and Lightwells (CPG4), including Camden Development Policies DP27 – Basements and Lightwells, in respect of the proposals at 26 Redington Road for the minor deepening of a small residential basement at the property.

## 2 Subterranean (ground water) flow screening

|   |     |                   |
|---|-----|-------------------|
| Q 1a: Is the site located directly above an aquifer?  | Yes | See figures below |
| Q 1b: Will the proposed basement extended beneath the water table surface?  | No  |                   |
| Q 2: Is the site within 100m of a watercourse, well (used/disused) or potential spring line?  | Yes | See figures below |
| Q 3: Is the site within the catchment of the pond Chains on Hampstead Heath?  | No  |                   |
| Q 4: Will the proposed basement development result in a change in the proportion of hard surfaced/paved areas?  | No  |                   |
| Q 5: As part of the site drainage, will more surface water (e.g. rainfall and run-off) than at present be discharged to the ground (e.g. via soakaways and/or SUDS)?  | No  |                   |
| Q6: Is the lowest point of the proposed excavation (allowing for any drainage and foundation space under the basement floor) close to, or lower than, the mean water level in any local pond (not just ponds chains on Hampstead Heath) or spring line. | No  |                   |

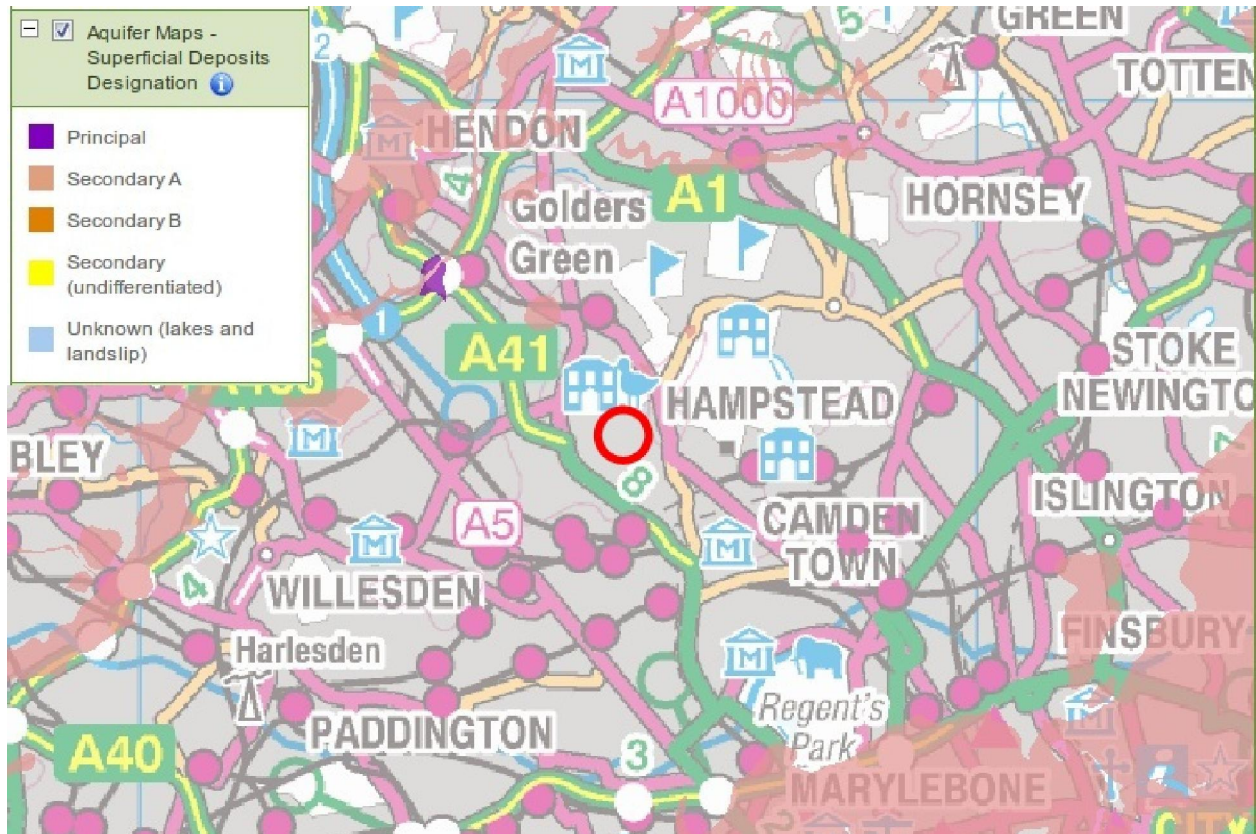


Figure 1: Superficial Deposit Aquifer

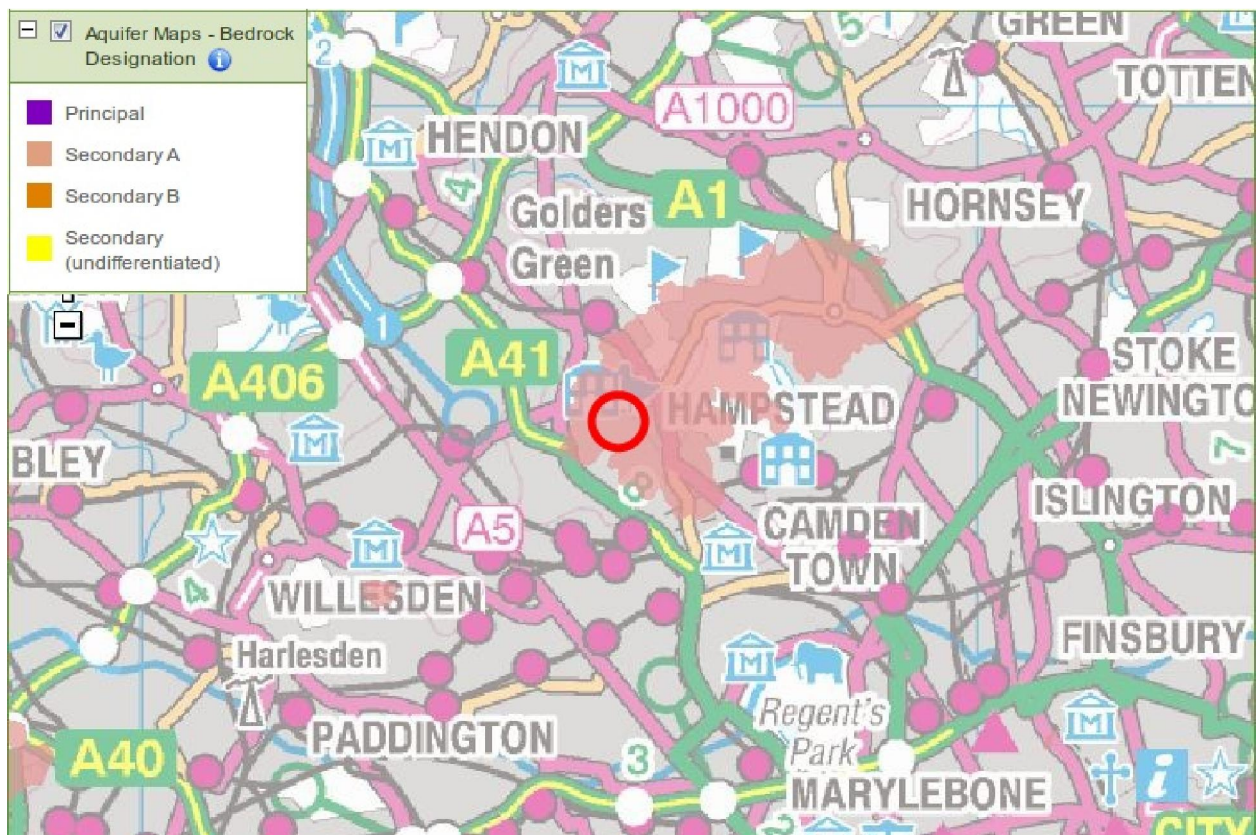


Figure 2: Bedrock Aquifer



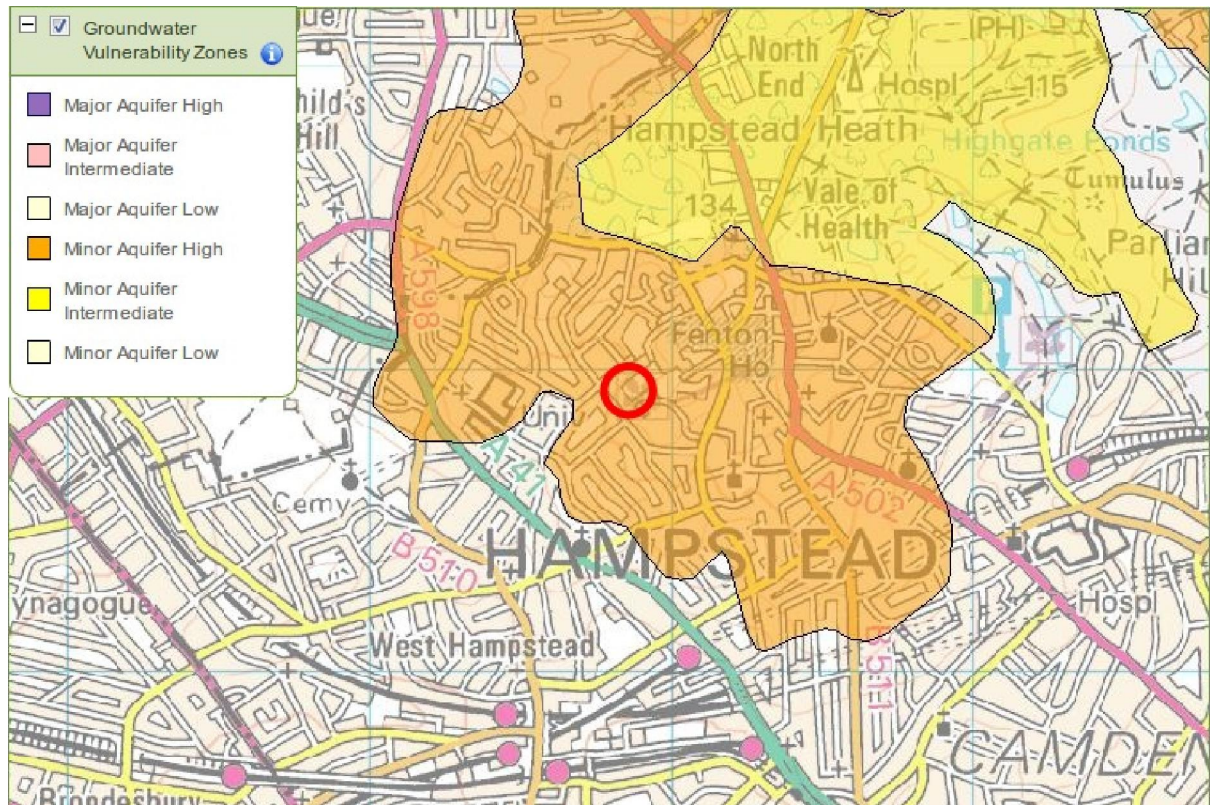


Figure 3: Groundwater vulnerability map

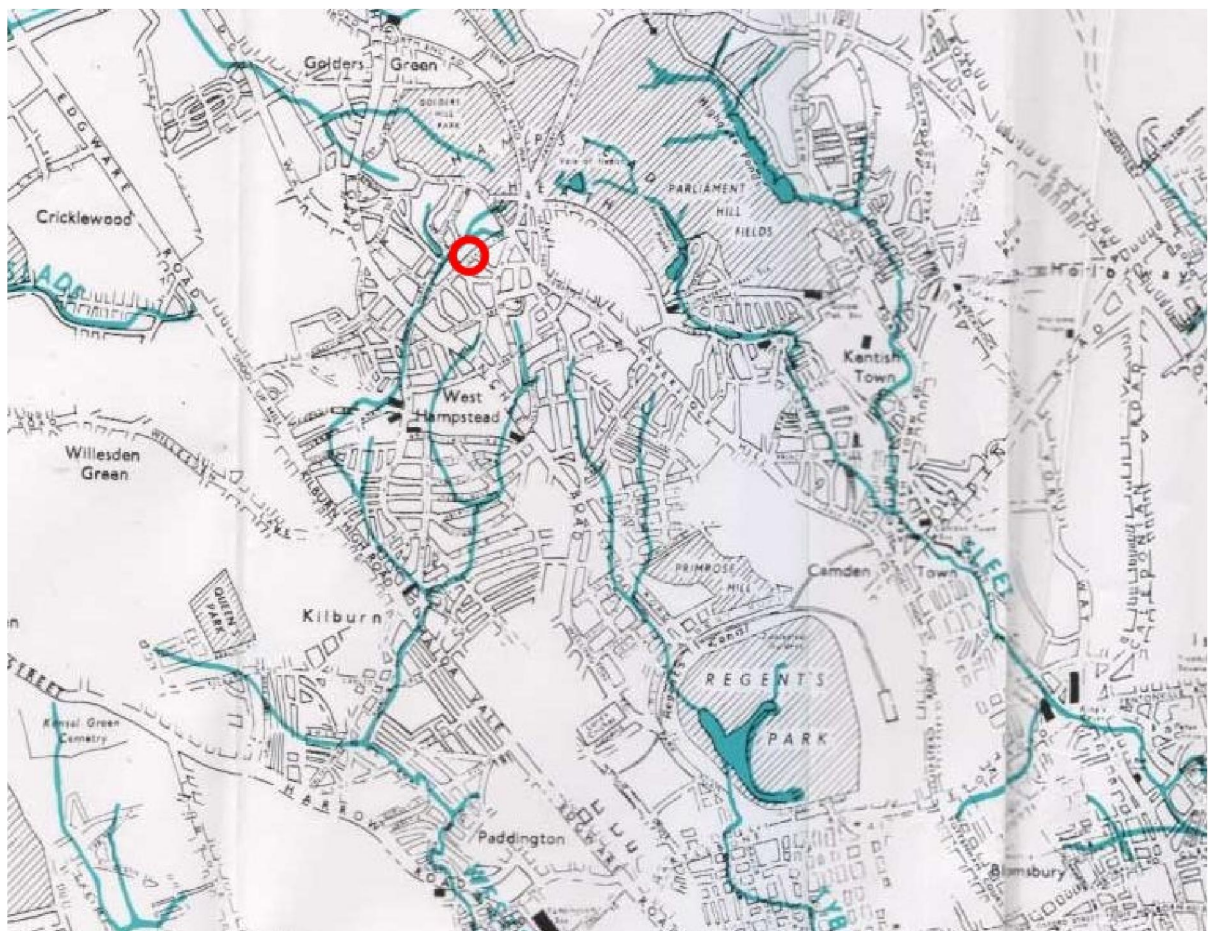


Figure 4: Lost Rivers of London Extract

3 Slope stability screening

|   |            |   |
|---|------------|---|
| Q 1: Does the existing site include slopes, natural or manmade, greater than 7° ? (approximately 1 in 8)  | No         |   |
| Q 2: Will the proposed re-profiling of landscaping at site change slopes at the property boundary to more than 7° ? (approximately 1 in 8)                      | No         |   |
| Q 3: Does the development neighbour land, including railway cuttings and the like, with a slope greater than 7° ? (approximately 1 in 8)                        | No         |   |
| Q 4: Is the site within a wider hillside setting in which the general slope is greater than 7° ? (approximately 1 in 8)   | No         |   |
| Q 5: Is the London Clay the shallowest strata at the site?  | No         | See Figure 5                            |
| Q 6: Will any tree/s be felled as part of the proposed development and/or are any works proposed within any tree zones where trees are to be retained?          | No         |   |
| Q 7: Is there a history of seasonal shrink-swell subsidence in the local area, and/or evidence of such effects at the site?                                     | No         |   |
| Q 8: Is the site within 100m of a watercourse or a potential spring line?   | Yes        | See Figure 4                            |
| Q 9: Is the site within an area of previously worked ground?  | No         |   |
| Q 10: Is the site within an aquifer? If so, will the proposed basement extend beneath the water table such that dewatering may be required during construction? | Yes,<br>No | Above aquifer but not below water table |
| Q 11: Is the site within 50m of the Hampstead Heath ponds?  | No         |   |
| Q 12: Is the site within 5m of a highway or pedestrian right of way?  | No         |   |
| Q 13: Will the proposed basement significantly increase the differential depth of foundations relative to neighbouring properties?                              | No         |   |
| Q 14: Is the site over (or within the exclusion zone of) any tunnels e.g. railway lines?  | No         |   |



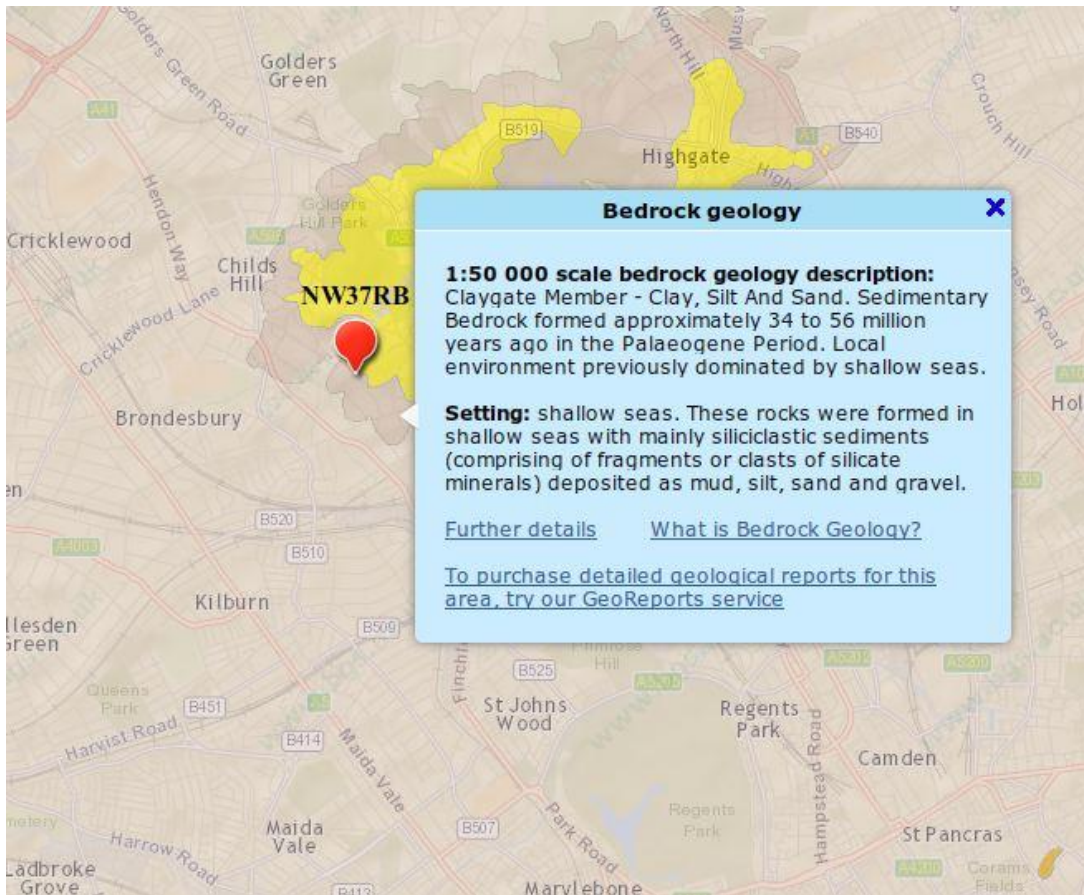


Figure 5: Extract from British Geological Maps

#### 4 Surface flow and flooding screening

|   |    |          |
|---|----|----------|
| Q 1: Is the site within the catchment of the ponds on Hampstead Heath   | No |          |
| Q 2: As part of the proposed site drainage, will surface water flows (e.g. volume of rainfall and peak run-off) be materially changed from the existing route?  | No |          |
| Q 3: Will the proposed basement development result in a change in the proportion of hard surfaced / paved external areas?   | No |          |
| Q 4: Will the proposed basement result in changes to the profile of the inflows (instantaneous and long-term) of surface water being received by adjacent properties or downstream watercourses?  | No |          |
| Q 5: Will the proposed basement result in changes to the quality of surface water being received by adjacent properties or downstream watercourses?   | No |          |
| Q 6: Is the site in an area known to be at risk from Surface water flooding, such as South Hampstead, West Hampstead, Gospel Oak and King's Cross, or is it at risk from flooding, for example because the proposed basement is below the static water level of a nearby surface water feature? | No | Figure 6 |

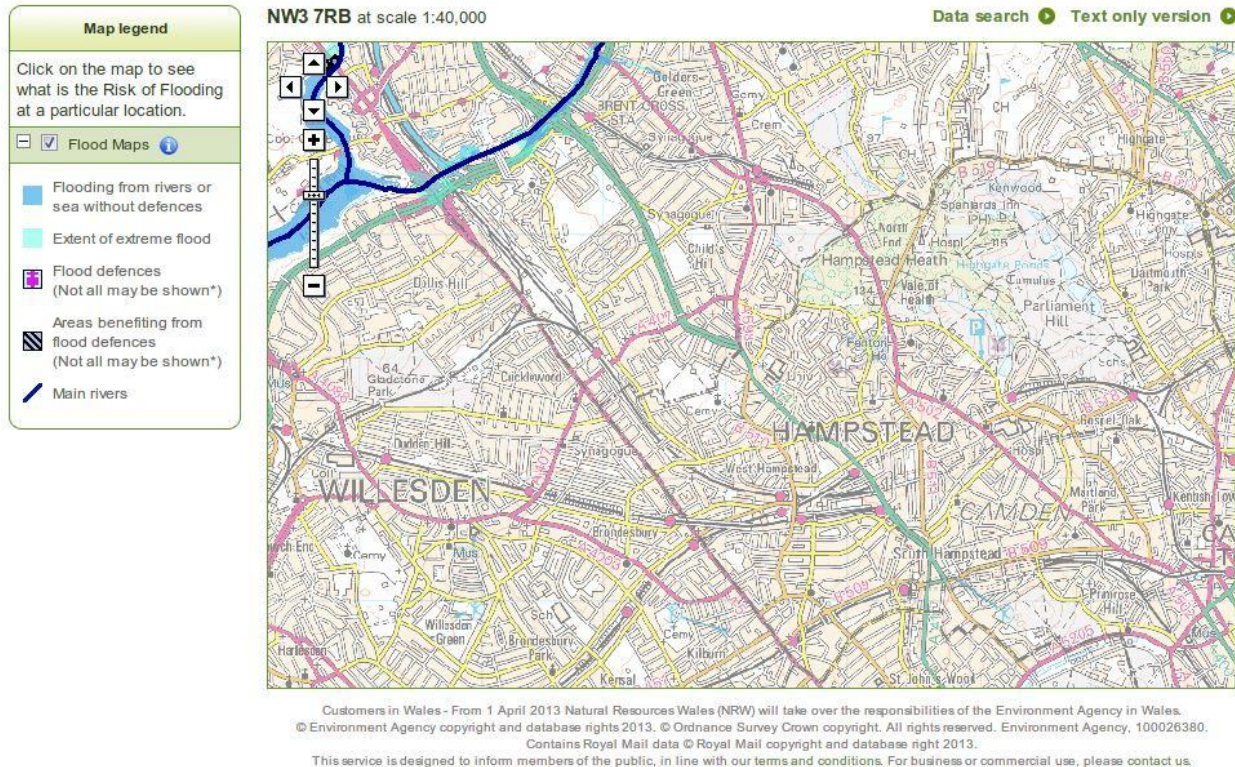


Figure 6: EA Flood Risk Map

## 5 Issues brought forward for screening and further study

### Subterranean (ground water) screening chart

Q 1a: Is the site located directly above an aquifer? **Yes**

#### Impact Assessment

The site is located above the Upper aquifer, designated as Minor Aquifer with high vulnerability (see Figure 3). Figure 6 shows that the site is outside the flood risk zone identified by the Environment Agency.

The London Clay acts as a barrier to flow between the lower (Chalk) aquifer and superficial groundwater. Water infiltrating the London Clay will generally tend to flow vertically downwards at a very slow rate towards the lower aquifer (Chalk). The current policy, implemented by the Environment Agency, is to maintain water levels in the Chalk at about their present levels. Thus, the property is unlikely to be influenced directly by groundwater levels in the Chalk, even in the long-term. There are no known underground structures in the vicinity of the site that might indirectly induce local changes of water pressures in the London Clay, which could affect the development.

The proposed works only increase the depth of the existing basement by approximately 600mm. The existing house is founded on the Bagshot or Claygate beds (which a nearby site investigation show to be around 4m deep) above the London Clay and above the ground water table. As the proposed basement extension will only be 600mm deeper into this formation, it is not expected to intercept the water table.

#### Review

Given the anticipated depth of the water table and the nature of the soils at the site, water will tend to continue to flow underneath the formation level of the slightly deeper lower ground floor without any restriction.

## 6 Conclusions

A BIA Screening exercise has been undertaken in accordance with Camden Planning Guidance – Basements and Lightwells (CPG4), this has shown that the only issue to be brought forward for further study is the location of the site above an aquifer. Given that the proposed works constitute a minor change of level of an existing lower ground floor and lowering of an existing terrace, rather than a full new basement, and that the works will not interrupt any groundwater flows, a full BIA is not required.