

**Appeal by RJD Limited and Gowling WLG Trust Corporation Limited**

**Site at Land at Ware Park, Wadesmill Road Hertford**

**Appeal Reference: APP/M1900/W/17/1378839**

**STATEMENT OF CASE ON BEHALF OF STOP BENGEO QUARRY  
(a Rule 6 interested party)**

**December 2017**

## INTRODUCTION

1. This Statement of Case is submitted on behalf of Stop Bengo Quarry, a Rule 6 interested party (“**SBQ**”), in opposition to this appeal by RJD Limited and Gowling WLG Trust Corporation Limited (the “**Appellants**”).
2. It is noted that the Appellants seek to appeal on the basis of an amended development proposal (the “**amended scheme**”). SBQ does not comment further on this issue in its Statement of Case but reserves the right to do so at a later stage.
3. SBQ was formed in April 2016 by local residents in response to the Appellants’ original development proposal (the “**original scheme**”). It coordinated a successful campaign against that original scheme, generating significant, widespread support within the local community, including from local businesses and politicians. It currently has approximately 3,000 active supporters. SBQ will refer to the document, entitled “*Stop Bengo Quarry opposes the extraction of sand and gravel...*”, [Appendix: No. 18] as an overview of SBQ’s activities as well as the broader concerns regarding the proposed development.
4. SBQ will also refer to the significant number of written representations received by the Inspectorate in opposition to this appeal.
5. SBQ continues to campaign against the new planning permission application [HCC ref: 3/2352-17] in respect of the amended scheme, which is scheduled to be heard by the Development Control Committee of Hertfordshire County Council (respectively, the “**DCC**” and “**Herts CC**”) on 25 January 2018. SBQ reserves the right to amend its Statement of Case to take into account matters or evidence arising in the course of this ongoing application.
6. SBQ’s intervention in this appeal is limited to the issue of the water pollution risk posed by the proposed development to the chalk aquifer, or groundwater source, which supplies the Wadesmill Road pumping station owned and operated by Affinity Water (the “**Wadesmill Rd PWS**”).
7. In summary, SBQ will show that the proposed development poses an unacceptable risk of pollution to that groundwater source and that the measures proposed by the Appellants do not sufficiently mitigate that risk to the extent that planning permission should be granted.

## WATER POLLUTION: The Relevant Policies

8. The potential impact of mineral extraction on groundwater is a material consideration in any planning decision relating to such development.
9. Both national and local policy requires decision makers to assess the cumulative impact of such development on the environment as a whole, as well as on the local community (*National Planning Practice Guidance, Minerals*, ¶17 [Appendix: No. 2]; *Minerals Local Plan (“MLP”)*, ¶4.2 and policy 11 [Appendix: No. 3]). SBQ’s concerns as to water pollution should therefore be considered alongside the objections presented by Herts CC and other opponents to this appeal.

## National Policy

10. SBQ will refer to the relevant provisions of the National Planning Policy Framework (“**NPPF**”) [*Appendix: No. 1*] which state that:
  - 10.1. The planning system should prevent new development from contributing to unacceptable levels of water pollution [¶109];
  - 10.2. An element of such prevention is ensuring that the new development is appropriate for its location, taking into account the effects of pollution on the natural environment and the potential sensitivity of the area to adverse effects from pollution [¶120]; and,
  - 10.3. When determining mineral planning applications in particular, it must be ensured that there are no unacceptable adverse impacts on the natural environment or human health. [¶144]

## Local Policy

11. SBQ will refer to the relevant provisions of the MLP which state that:
  - 11.1. The natural environment in Hertfordshire is subject to significant pressures from development and use of natural resources. In particular, water supply in the county is under pressure due to the increasing population and groundwater resources across the region are now at or approaching full utilisation. Water resources must therefore be used efficiently and in such a way which protects water quality. [¶¶3.1.1 – 3.1.2; A4.21-22, 24]
  - 11.2. “*Proposals for mineral extraction and related development... (iv) **shall not be permitted if the development and/or subsequent after-use would have a negative quantitative and/or qualitative impact on the water environment, including...groundwater resources, unless appropriate measures can be imposed to mitigate any harmful effects***”. (emphasis added) [policy 17]
  - 11.3. “*All proposals for mineral extraction and related development **shall...(ix) demonstrate that no significant degradation of...water quality or quantity – with respect to both groundwater and surface water will occur***”. (emphasis added) [policy 18]
12. SBQ will also refer to the provisions of the consultation draft of the emerging Herts CC Minerals Local Plan (the “**draft MLP**”) [*Appendix: No. 4*] in which the issue of water pollution and the duty of Herts CC to ensure minerals extraction does not have an unacceptable adverse impact on the natural environment are emphasised. [¶12.7, 13.9, policy 15]
13. In particular, the draft MLP states that:
  - 13.1. The purpose of the MLP is to achieve a balance between the need for minerals extraction and the potential impacts that extraction could have on the local community and environment. [¶13.56]; and,

- 13.2. Mineral developments must not cause any unacceptable adverse impact on local water bodies. As roughly 70% of Hertfordshire is covered by Source Protection Zones, which provide much of the county's drinking water and maintain the flow in many of our rivers, this is of particular local importance. [¶13.10]
14. It should be noted that the site at Ware Park has been removed from the Preferred Area category in the draft MLP.

#### **WATER POLLUTION: *The issue as before the DCC***

15. SBQ raised the issue of water pollution as a material consideration in the course of the planning application for the original scheme. During the meeting to consider the original scheme on 22 March 2017 (the "**DCC meeting**"), Dr Bryan Lovell addressed the DCC on behalf of SBQ on the issue [Appendix: No. 15], which was also raised on that occasion by Hertfordshire County Councillor Andrew Stevenson.
16. The issue of water pollution was rightly a relevant consideration in DCC's decision to refuse permission for the original scheme.

- 16.1. SBQ will refer to minutes of the DCC meeting which state [¶¶1.6 – 1.7] that:

*"[1.6] ...the Committee were united in raising concern that the Environment Agency had failed to object from a water supply point of view, particularly as the location of the site was situated within an Environment Agency defined groundwater Source Protection Zone relating to [the Wadesmill Rd PS] ...[this] had the potential to open up a pollutant pathway directly to the chalk aquifer. [1.7] The Committee considered that a further condition of refusal should be included, however agreed, following legal advice, that an information letter could be included with the response to the applicant, raising very serious concerns on the issue...Members also considered that the site should be totally removed from the Minerals Local Plan, which officers confirmed was currently under consideration". (emphasis added)*

- 16.2. SBQ will refer to DCC's Decision Notice, dated 24 March 2017, which stated that:

*"Hertfordshire County Council's Development Control Committee has raised serious concerns regarding the potential for Hertford's water supply to become contaminated as a result of this development due to the proximity of boreholes to the site".*

- 16.3. SBQ will also refer to the letter from Brian Owen on behalf of the DCC to Mr Symes on behalf of the Appellants, dated 24 March 2017, which informed the Appellants of DCC's refusal of permission and DCC's "*very serious concerns regarding the potential for [the] development to contaminate Hertford's water supply due to its proximity to the boreholes*".

#### **WATER POLLUTION: The Appellants' Statement of Case**

17. The Appellants acknowledge DCC's concerns in their Statement of Case [at ¶3.4].
18. However, they erroneously state that the amendments to the scheme "*do not change [their consultant's] assessment of the original scheme*" with regard to water [at ¶4.2.1],

concluding that “*the amended scheme reduces the environmental impacts through the smaller footprint of the development and the reduced timescale*” [at ¶4.2.2].

19. SBQ will show that the Appellants’ consultant, Hafren Water (“**Hafren**”) identified *increased* pollution risks to groundwater as a result of the amended scheme, referring to Hafren’s Addendum to Hydrogeological Impact Assessment Ware Park, Hertford. Dated July 2017 (the “**Hafren 2017 report**”) (see ¶23 below).
20. The Appellants’ Statement of Case otherwise fails to address the issue of water pollution or DCC’s concerns.

#### **WATER POLLUTION: The expert evidence**

21. As well as the Hafren 2017 report, SBQ will refer to the original report produced by Hafren for the Appellants, entitled “Hydrogeological Impact Assessment in support of gravel extraction at Ware Park, Hertford, Hertfordshire”, dated July 2014 (the “**Hafren 2014 report**”) - which states that:
  - 21.1. “***The aquifer is very vulnerable to contamination due to the presence of the fracture network. Very rapid flows can occur through the fracture system in both the unsaturated and saturated zones...In addition, once contamination enters the Chalk matrix it is very difficult to remove***”. [at ¶3.6.2] (emphasis added);
  - 21.2. “...*any polluted material that reaches the chalk has the potential to be rapidly transported in the direction of flow. In the case of Ware Park, this could mean contamination reaching the Wadesmill Road PWS in a very short period.*” [at ¶3.6.7] (emphasis added); and,
  - 21.3. “***Groundwater flow in the chalk is via a fracture network and, therefore, vulnerable to pollution due to potentially rapid transport times...An assessment of the risks posed by the site to groundwater quality in the Chalk and specifically to the public water supply abstraction, has indicated the potential for adverse impacts from suspended solids (turbidity) or contamination by the accidental release of oils or fuels from equipment in use on the site***”. [at ¶7] (emphasis added)
22. The Hafren 2014 report concluded there are two potential contamination risks posed by the development:
  - 22.1. “...*a risk to groundwater quality from increased turbidity if fine materials are mobilised in the workings and transported into the Chalk aquifer. This could then be rapidly transported, via fracture flow, to the nearby public water abstraction...Without any mitigation of impact of this is considered to be medium with a significance of impact of major*”. [at ¶5.3.2(a)] (the “**turbidity risk**”)
  - 22.2. “...*a risk of contamination of the sand and gravel, and therefore the chalk aquifer, as a result of accidental spillage of oil and fuel [i.e. hydrocarbons] ...This may result in contamination of groundwater in the Chalk aquifer and the nearby public water supply abstraction...Without mitigation measures, the potential for impact on groundwater from hydrocarbon spills is considered to be ‘high’ with a significance of impact of ‘major’*”. [at ¶5.3.2(b)] (the “**hydrocarbon risk**”)

23. The Hafren 2017 report stated that, due to the relocation of the wheelwash, offices and weighbridge in the amended scheme, there were “*additional risks from hydrocarbons washed off vehicles in the wheelwash and foul drainage from the offices and mess facilities*”. [at ¶4.3.2]
24. By way of mitigation, Hafren proposes that the Appellants adopt the following measures:
  - 24.1. In terms of the turbidity risk, a layer of minerals would be left in the base of the excavation at varying levels of between 5m – 1m across the site [at ¶6.1.2(a)]. Hafren concludes that this reduces the turbidity risk to ‘negligible’; and,
  - 24.2. In terms of the hydrocarbon risk, a variety of measures would be adopted regulating the storage, movement and use of fuel around the site and imposing training requirements and protocols to deal with spillage. The Hafren 2014 report does not assess the extent to which these proposed mitigation measures would reduce the hydrocarbon risk. [Ibid.];
  - 24.3. To address the increased hydrocarbon risk and the additional risk from foul drainage, the Hafren 2017 report proposes that all water from the wheelwash be recycled with no drainage to a soakaway. Foul drainage from the office and welfare block would be conveyed by pipe to a tank to be emptied; likewise, no soakaway would be used. [at ¶5.1.2(b) and (c)]
  - 24.4. The Hafren 2017 report concluded that “*with these mitigation measures in place, residual impact to the Chalk aquifer is considered to be ‘negligible’*”. [Ibid.]

#### **WATER POLLUTION: SBQ’s Case**

25. SBQ accepts that the aforementioned risks identified by Hafren are accurate and considers them indicative of the unacceptable adverse impacts which the proposed development could have on the chalk aquifer.
26. However, SBQ does not agree that the measures proposed by Hafren mitigate those risks to the extent that planning permission should be granted.
27. Relying on the expert evidence of Professor Frederick Brassington as set out in his proof of evidence [Appendix: No 7], SBQ will say that:
  - 27.1. The characteristics of the chalk aquifer make it a highly valuable water resource but also particularly vulnerable to pollution.
    - 27.1.1. Fractures and karstic features in the chalk which allow water to flow swiftly through the aquifer to the Wadesmill Rd PWS supply boreholes would also allow rapid contaminant flow to the same destination.
    - 27.1.2. The dual porosity of the chalk means that any contaminant would also be retained within the aquifer for a significant period of time, from as little as 10 to as much as 100s of years.

27.1.3. There have been instances of chalk aquifer pollution in the local area within the last decade. In 2001, for example, significant bromate pollution was discovered in two public water supply boreholes in Hatfield, Hertfordshire, again owned by Affinity Water, originating from former chemical works at Sandridge, Hertfordshire. Additional boreholes as far away as Hertford itself were found to be at risk and significant expense was incurred in investigating and treating the affected water.

28. In respect of the turbidity risk mitigation measure proposed by Hafren, SBQ will say:

28.1. Even if a 5m layer of gravel were sufficient to act as a filter in a range up to 300m from the supply boreholes (which is not accepted), the Appellants have provided no evidence in support of their assumption that a lesser layer would be adequate to perform the same function at greater distances. The water-bearing fractures and karstic features in the aquifer could exist across the whole of the proposed site meaning that there would be little or no difference in site wide flow rates. On this basis, if Hafren's assumption regarding the 5m layer were correct, the same thickness of overlay should be left across the entire site.

28.2. In any event, the Appellants' assumption that this mitigation measure would be sufficient is based on inadequate data concerning:

28.2.1. The contours of the chalk rockhead on which the gravel layer would rest and from which its thickness would be measured; and,

28.2.2. The nature and location of the fractures and karstic features within the chalk itself.

28.3. Hafren's drawings of the contours of the chalk rockhead appear to have been created using a smoothing programme to determine the rockhead elevations between specific data points. This methodology is inappropriate for generating contours of a chalk rockhead which, due to the way in which the geology of the site was formed, is unlikely to be smooth. If Hafren proceeded on the basis of these flawed contours, it is likely that there would be significant irregularities in the depth of the layer, negating its alleged protective qualities.

28.4. An appropriate geophysical survey could provide more detailed information concerning the contours and features of the chalk rockhead. However, it would be technically difficult to detect and identify the fractures and karstic features within the chalk itself with sufficient accuracy to assess the adequacy or otherwise of proposed mitigation measures.

28.5. In any event, no permission should be granted on the basis of the wholly insufficient data on which the Appellants currently rely.

29. In relation to the mitigation measures proposed to address the hydrocarbon and foul drainage risks, SBQ will say:

29.1. The location of the majority of the site within Zone 1 of the Environment Agency ("EA") Source Protection Zone for the Wadesmill Road PWS is a pre-eminent

consideration, especially given the local policy concerns regarding increasing pressure on water supplies in Hertfordshire.

- 29.2. The characteristics of the chalk, in particular the fractures and karst features, mean that the contaminant could travel to the supply boreholes quickly, in as little as a few hours.
- 29.3. In the event of contamination occurring as a result of a spillage or other incident, there is a significant possibility that the chalk aquifer would have to be abandoned as a water source in the long term due to the contaminant retentive nature of the chalk. This would represent a significant cost to the local infrastructure. The potential for contaminated water to be distributed to homes across the Hertford area if rapid and appropriate action were not taken cannot be disregarded.
- 29.4. As stated above, the information provided by the Appellants on the characteristics of the chalk aquifer is wholly insufficient and cannot be relied on as the basis for an assessment of the adequacy of any proposed mitigation measures.
- 29.5. In any event, due to the high probability of fractures and karstic features being present across the site, the measures proposed are not sufficient to reduce the level of this pollution risk from 'high' to 'negligible' as stated by Hafren.
- 29.6. SBQ's primary case is that the pollution risk posed by the proposed development is such that, given the nature and importance of the chalk aquifer, a precautionary approach should be taken and planning permission should be refused.
- 29.7. At the very least, planning permission should not be granted without highly prescriptive mitigation measures being put in place, in line with Professor Brassington's recommendations. For example, following any spillage of potential contaminants, the affected sand, gravel or other materials should be excavated, stored in a safe location and then removed from site as soon as possible.

### **The role of the Environment Agency**

30. SBQ acknowledges that the EA has not opposed permission being granted for the proposed development.
31. However, SBQ will refer to an email from Simon Hawkins (EA Area Director, Hertfordshire and North London) to Dr Lovell (dated 20 September 2017) [*Appendix: No. 17*], which states as follows:

*"I understand your main concern is regarding the current knowledge on the relief of the top of the chalk and the location of any fast flowing fissure systems. This limited information **could make it operationally difficult to know how much thickness can be quarried to achieve the minimal unworked basal layer which will be required to protect the aquifer**".* (emphasis added)
32. SBQ will also refer to a letter from Mr Hawkins to Mark Prisk MP and Cllr Andrew Stevenson (dated 27 November 2017) [*Appendix: No. 16*] in which Mr Hawkins stated that:

- 32.1. EA's assessment of the pollution risks posed by the proposed development was limited to a desk-based assessment;
  - 32.2. The EA had no in-house capability or competence to carry out non-intrusive geophysical surveys of the site, including as to the contours of the chalk rockhead; and,
  - 32.3. Herts CC should engage the services of a consultant geologist as part of the ongoing application process if they felt it was necessary.
33. Further, SBQ notes the letter from the Inspectorate to Mr Symes, on behalf of the Appellants, dated 24<sup>th</sup> November 2017, requesting them to provide additional environmental impact assessment data. SBQ reserves the right to amend its Statement of Case to take into account any relevant material which is produced as a result of this request.

### **CONDITIONS**

34. SBQ will endeavour to agree a list of possible conditions with Herts CC, the Appellants and the other parties to this appeal in advance of the Inquiry.

### **CONCLUSIONS**

35. SBQ will demonstrate that:
- 35.1. The commonly agreed pollution risks indicate that the proposed development could have an unacceptable adverse impact on the chalk aquifer and consequently the public water supply at the Wadesmill Rd PWS;
  - 35.2. In line with national and local planning policy, the proposed development can therefore not be permitted unless the Appellants can demonstrate that appropriate measures can be imposed to mitigate that impact;
  - 35.3. The mitigation measures proposed by the Appellants thus far are, for the reasons given above, wholly insufficient to mitigate the serious impact on the chalk aquifer.
36. Planning permission for the proposed development – whether the original or the amended scheme – should therefore be refused.

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12 December 2017