

## **Planning Appeal - Proof of Evidence**

**David Howard on behalf of Better Wetherby**

**APPEAL REF: APP/E2734/W/19/3236153**

APPEAL BY: Hallam Land Management and Stockeld Park

SITE AT: Land Comprising Field At 439236 449205 Harrogate Road Stockeld  
North Yorkshire

PROPOSAL: Outline application for the erection of up to 210 dwellings and  
associated infrastructure, with access to (but not within) the site  
considered. (Site Area 13.17Ha)

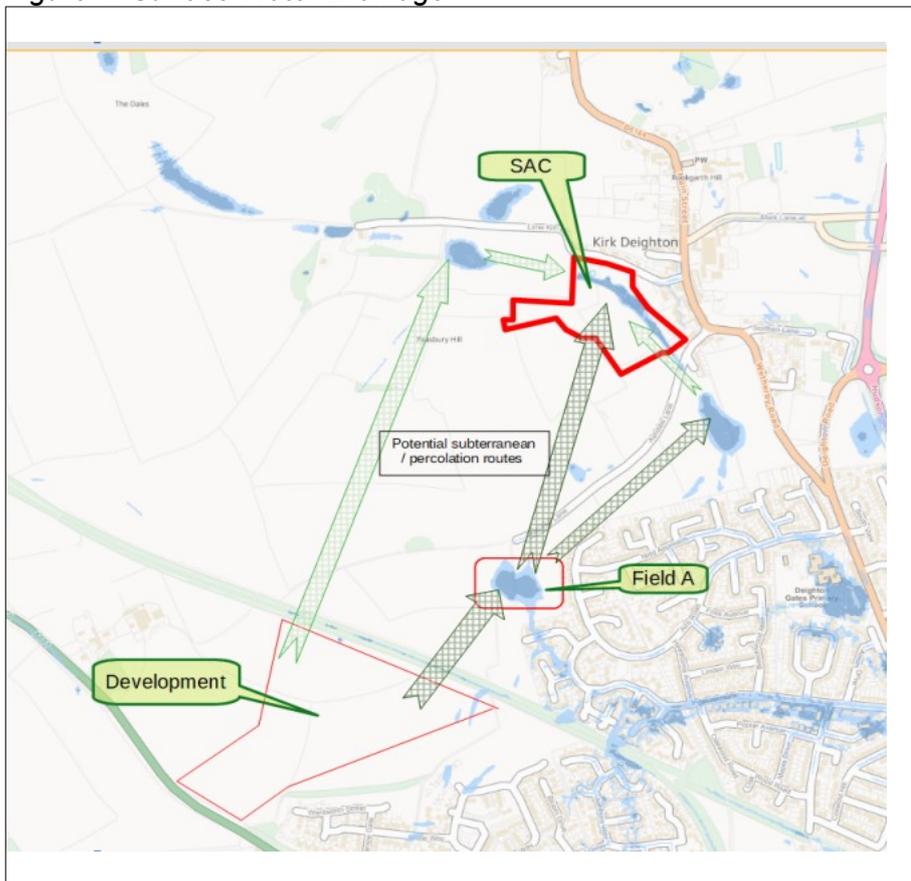
## 1 INTRODUCTION

- 1.1 I have submitted objections (doc\_ref's 9141999 and 9209839) to this proposed development, highlighting the potential impact on the nearby Kirk Deighton SAC. As a result of these comments the developers submitted a Hydrological Assessment (doc\_ref 9150707) which concluded that “..*development of the site will have a low impact on the SSSI..*”. A further representation (doc\_ref 9597599) was made that questioned the evidence and conclusion of the report, however further assessments were not performed.
- 1.2 This Proof of Evidence (PoE) will identify shortcomings and omissions in document 9150707, and will contend that there is a significant risk that Great Crested Newt (GCN) ponds will be subject to irreparable damage due to drying.
- 1.3 The PoE will also show that the ongoing “Bellway” development, adjoining the site, has had a considerable impact on nearby water levels, providing further evidence that development in this area will significantly affect water levels within the SSSI / SAC.
- 1.4 I shall refer to the following documents which are appended to this PoE.
  - BWHy1 – PoE Appendix BWHy1. D Howard on behalf of Better Wetherby
  - BWHy2 – European Site Conservation Objectives: Supplementary advice on conserving and restoring site features. Kirk Deighton SAC (UK0030178)

## 2 SITE LOCATION / PROPOSED SURFACE WATER DRAINAGE

- 2.1 The site is located within the National Character Area 30: Southern Magnesian Limestone (<http://publications.naturalengland.org.uk/publication/5733629942562816>). The underlying bedrock is defined as a principal aquifer - “*..geological strata that exhibit high intergranular and/or fracture permeability and they usually provide a high level of water storage, supplying water and/or river base flow on a Strategic Scale..*”
- 2.2 It is my opinion that the principal drainage from the proposed site follows the underlying dip and strike of the dolomitic limestone / dolostone bedrock (traditionally referred to as Magnesian Limestone) to the North / North-East as depicted below. Note that the map below is based on the UK Flood risk map (<https://flood-warning-information.service.gov.uk/long-term-flood-risk/map>)

Figure 1: Surface Water Drainage



- 2.3 Appendix BWHy1 demonstrates that there has been a significant change in the drainage pattern in the area to the north of Harland Way adjacent to the Bellway (and proposed Hallam) developments. This has occurred since groundwork's started for the Bellway development thus indicating a strong causal link and supporting the proposed scheme in Figure 1.

### 3 COMMENTS REGARDING HYDROLOGICAL ASSESSMENT (Doc\_ref 9150707)

- 3.1 I believe that there are a number of discrepancies within this report, and contend that their conclusion is incorrect, and that there is a significant risk that the proposed development will have an “effect” on the SAC.
- 3.2 The report has provided no evidence to “*demonstrate that water levels on the SAC will not be affected*”, as recommended by Natural England (Doc\_ref 9122809). There has been no assessment of the impact on meeting, for example, the conservation target to “*Maintain the permanence of water within ponds present within the site, with a minimum summer water depth of 10cm for both ponds at least three years out of four*” (BWHy2 pages 5 & 6). Furthermore the hydrological report fails to even recognise the Kirk Deighton site as an important SAC.
- 3.3 The report (paragraph 2.1) concludes that groundwater flows southwards to the River Wharfe rather than towards the SSSI. This would be contrary to the dip of the limestone bedding, and ignores the major role played by bedding planes and joints for allowing percolation of water through limestone. I also do not believe there is any evidence of springs, or other water ingress, in this area of the River Wharfe.
- 3.4 The conclusion of southwards flow is drawn solely on the hydraulic gradient to the River Wharfe of 1 in 35 as compared with a gradient of 1 in 70 to the SSSI. The authors contradict themselves by concluding a southerly flow to the River Wharfe as they previously contend that “*...the hydraulic gradient would tend to suggest any ground water from the site will flow in a north-easterly direction towards open water at 25 mAOD ...*”
- 3.5 The report surprisingly omitted the ‘occasionally’, but well documented, open water to the north east, depicted as Field A in Figure1. This surface water pond is 300 metres from the easterly corner of the site at a level of 33mAOD, thus giving a hydraulic gradient of approx 1 in 30. If this open water had been identified in the report, it should have been concluded as the most likely route for groundwater from the site. I believe that it is also a much more ‘feasible’ route for groundwater – in addition to the proximity to the site, it lies in the ‘north-easterly’ direction suggested by the report authors.
- 3.6 The report (paragraph 2.1) suggests that the SAC ponds are all formed on “impermeable” mudstone bedrock (Edlington formation). There is no evidence, for example springs, that these calcareous mudstones are actually impermeable in this area. Furthermore the majority of ponds are NOT formed on these mudstones but are actually on Dolomitic Limestone bedrock (Brotherton formation), potentially on impermeable local dips/hollows arising from the gentle folding of the bedrock. Furthermore, there is no mention that ALL the ponds are formed on the ‘porous’ Devensian Glaciofluvial Terrace deposits, this might be a significant factor in their formation? It is also noticeable that these Glaciofluvial deposits closely follow the flood risk map of water close to the SAC, potentially providing a ‘rapid’ migratory route for water from Field A (Figure 1) once it has percolated through the clays/sands/gravel of the Vale of York formation.

- 3.7 The statement (paragraph 2.1) suggesting that the mudstones and an East-West fault will produce an 'impermeable barrier' cannot be substantiated. The thin band of calcareous mudstones may actually be permeable, furthermore faults in limestone bedrock often provide a conduit, rather than barrier, for water migration.
- 3.8 The statement in paragraph 3 ("*Groundwater flows from the site are **expected** [my emphasis] to be impeded on their flow northwards by the presence of impermeable mudstone bedrock and by impermeable clay superficial deposits*") is very vague and open to scrutiny.
- The superficial (Vale of York) deposits are defined by BGS as "*Dominantly glacial till (sandy clay, clayey sand and clay with gravel and boulders) with interbedded sand, gravel and laminated clay...*", with no indication that they are impermeable. Even if they were primarily impermeable, they are fairly shallow in this area and are underlaid by permeable Limestones (Brotherton and Cadeby formations) so are unlikely to impede any groundwater flows.
  - The mudstone (Edlington formation) bedrock occurs predominantly as a narrow band starting at the northern edge of the SAC, continuing eastward for approximately 500 metres before heading southward towards the western edge of the site. Without further evidence, it is impossible to predict the effect on groundwater, however if it did actually impede northbound flows it is likely to divert water in an easterly direction towards the SAC, hence might actually increase water flows into the ponds.

#### **4 CONCLUSION**

- 4.1 Housing development on Spofforth Hill has already affected the Kirk Deighton SAC.
- 4.2 The Hydrological Assessment (9150707) has numerous omissions, all of which question its conclusion of 'low impact'.
- 4.3 There has been no appropriate assessment to assess/quantify the actual affect on the integrity of SAC and the resulting impact on the Great Crested Newt population.
- 4.4 I believe that the proposed development **will** impact the water levels in the SAC. Accordingly, approval of this development would be contrary to NPPF paragraph 177:

*"The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site."*