Town and Country Planning Act 1990

Appeal by Gleeson Land and John Alison Land and Research Ltd

Land at Land at Downlands Farm, Uckfield, TN22 3PU

Wealden District Council Ref:	Planning Inspectorate Ref:
WD/2022/1637/MEA	APP/C1435/W/22/332978

PROOF OF EVIDENCE

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1 Introduction

1.1. My name is Graham Kean. I hold a BSc Honours degree in Land Surveying and Cartography, awarded by North-East London Polytechnic. I have worked for 40 years, which for the most part, has been at Wealden District Council. I am currently the Engineer and Countryside Officer at Wealden and have been in post since 1986.

1.2. The evidence which I have prepared and provided within this proof is true. I can confirm that the views expressed are my own professional opinions.

1.3 This appeal is against the Council's refusal of the hybrid application relating to Land at Downlands Farm. The elements of the refusal (full and outline) are set out in the respective Statements of Case ('SoC') (Appellant **CD1/5** and then LPA **CD1/6**) and need not be repeated in full for this Proof of Evidence. For the purposes of this Proof, I am talking to Reason for Refusal 4 relating to surface water drainage at the site. This says:

Whilst the site is within Flood Risk Zone 1, details in the flood risk assessment and surface water drainage strategy in relation to surface water flooding for this major development fail to demonstrate to the satisfaction of the Local Planning Authority and the County Council, as the Lead Local Flood Authority, that the proposed development on the site would not increase flood risk elsewhere. This is because it relies upon works to and within the Ancient Woodland which are unacceptable and will cause loss of irreplaceable habitat. It is accepted on the applicants' own evidence that on-site infiltration cannot occur due to geology and ground conditions. Whilst the scheme is outline, it is not considered possible to proceed without the drainage strategy being worked upon and to demonstrate avoidance of Ancient Woodland.

The details as submitted and determined by the Local Planning Authority fail to demonstrate that adequate provision for Sustainable Drainage Systems can be satisfactorily accommodated within the site layout and that the development would not lead to increased risk of surface water flooding both on and off-site and therefore the proposal is contrary to Saved Policies EN1 and CS2 of the Wealden Local Plan 1998; SPO1, SPO13 and Policy WCS14 of the Core Strategy Local Plan and having regard to National Planning Policy Framework 2021, specifically paragraphs 167 and 169 and guidance offered within Chapter 4 Paragraphs 8.6, 8.7 and 8.8 of the Wealden Design Guide.

1.4 My Proof of Evidence should also be read in the context of the drainage specific Statement of Common Ground (SoCG) agreed between the Council and Appellants (**CD1/65**). To be clear, I do not repeat any point covered in the SoCG.

2 Drainage Context to Site and Surrounding Area

2.1 A description of the site is within the Drainage SoCG (**CD1/65**)

2.2 Extensive description of the site is unnecessary but I note the following:

- The Site comprises several parcels of land which combine to provide a total area of circa. 46 hectares (ha) to the north-west of Uckfield. It comprises a mixture of woodland and agricultural land, alongside the residential property of Chicory Cottage and its associated curtilage.

- The majority of the woodland on the Site, with the exception of the woodland within the north and southeast, is classed as Ancient and Semi-Natural Woodland.

- The land slopes generally from east to west, from about 60 m AOD at Snatts Road to about 25 m AOD at the A22 bypass. Owing to the ghylls, the land has a rather complex and detailed topography.

- Infiltration is the first recommended drainage method in the SUDS hierarchy but the mixed, underlying mapped geology of the site and the presence of watercourses and ponds on the surface suggests that this may not be a usable solution for this site.

- There are no adopted, public surface water sewers in the vicinity of the site so this method of drainage is unavailable.

- The site drainage proposals are concept and comprise a series of swales and attenuation ponds directing water to the existing ordinary watercourses within the Ancient Woodland. That is proposed via new ‘directionally drilled’ connections through and under the Ancient Woodland.

3 Reason for Refusal 4 – Surface Water

3.1 The site lies wholly within EA Flood Zone 1. Most of it is not at risk from tidal, sea or fluvial flooding or from failure of a drainage asset such as a canal or reservoir. The majority of the site is at very low risk of flooding from surface water but as agreed in the drainage SoCG (**CD1/65**), there are high-risk flow paths associated with the ordinary watercourses on site. These are in the Ancient Woodland at Budletts and Shermanreed Wood. The site-specific Flood Risk Assessment (**CD2/82**) shows a bespoke flood zone around the confluence of two watercourses in the north-western part of the site. It is common ground in the SoCG that these should be treated the same as Flood Zone 3. The SANG route crosses this high risk flood area. In his Proof (**CD1/41**), Mr. Robins refers to this a 'water compatible development' but says it has an impact on this part of the Ancient Woodland and all year round use of the SANG. Others, notably Ms. Graham and Mr. Massheder, deal with the principle of a SANG and its use within an Ancient Woodland (**CD1/44** and **1/47**).

3.2 Groundwater levels are stated to be typically greater than 1.9 metres below ground level. There are ordinary watercourse systems which rise within the site and flow westwards off the site towards the Shortbridge Stream. The majority of these are ghyll streams located within areas of Ancient Woodland. There are ponds shown on the EA mapping within the application site, both associated with the watercourses and on their own.

3.3 There are no records of flooding close to this location within the Council's land drainage database.

3.4 I have also had regard to the contents of the Technical Briefing Note 08: Potential for hydrological connectivity to Sphagnum bed at Lake Wood (**CD2/98**) lodged by the Appellants. It is agreed that the Geological Map for the area is complex. The eastern side of the site is on the Upper Tunbridge Wells Sand Formation of interbedded sandstones and siltstones; the north-western area is on the Ardingly Sandstone Formation of sandstones and the south-western area is on the Grinstead Clay Formation of mudstones.

3.5 The Appeal Scheme includes a concept drainage strategy with majority of focus relating to the outline and housing component. Soakage testing was undertaken across the Site, which demonstrated that soil permeability was too low to calculate the infiltration rate in most locations. The Geo-Environmental Site Investigation report

concludes that the disposal of surface water to soakaways will not be feasible at this Site due to the predominantly cohesive nature and proved low permeability of the underlying soils and geological composition of this part of Uckfield. Discharge to ground is therefore precluded. Another scheme or system is required. (see paragraph 5.56 and Table 8.4 of the ES, **CD2/41)**. Therefore, the scheme proposed a new SuDS system. This is agreed in the drainage SoCG.

3.6 The Appeal Scheme proposes 13 SuDS ponds on the site. 9 of these are proposed within the minimum 15 metre buffer zone for Ancient Woodland. Whilst I rely on the submissions of others in regard to the ecological and arboricultural impact on Ancient Woodland, it seems clear to me that SuDS at these locations could not be accommodated without impacts upon the Ancient Woodland. It seems highly likely that the required excavations and associated engineering operations will cause root damage to trees on the edge of the Ancient Woodland. Moreover, there is bound to be associated ground compaction from all these works, including during the construction phase, where the 'working compound' will be larger than the resulting SuDS basins being constructed.

3.7 The Appeal Scheme shows connections from these SuDS basins into existing Ancient Woodland ghyll streams via new engineering works to form new piped connections. At 11 locations, the SuDS are proposed to have outflows passing through the Ancient Woodland, emerging in the Ancient Woodland at the ghyll streams. The evidence of Ms. Graham and Mr. Massheder (CD **1/44** and **1/47**) is that this will cause direct damage to the habitat and species where drilled or trenched pipes pass through Ancient Woodland soils and ongoing impacts through the proposed siting of what is described as "ground-bearing, prefabricated headwalls". Further, I consider that this aspect of the scheme is conceptual and lacks sufficient information to demonstrate that the drilling will, in any event, be successful. Whilst bore-hole surveying has been undertaken on the site, for assessing soakaway capabilities of the site, this is at sporadic locations. Such proposed directional drilling can be prevented by soil and rock composition on proposed routes, for example, seams of sandstone causing drilling to change direction or be aborted. I am aware that such geology is present very near and potentially on the site (**CD2/82** and agreed in the Drainage SoCG **CD1/65**). The likelihood that one or more of the proposed directional drillings will meet complication and not be able to be completed or will further damage Ancient Woodland habitat, soils or tree roots in the process, cannot be ruled out.

3.8 It is common ground that in excess of 9,000m3 of SuDS storage capacity is required to facilitate the Appeal Scheme (see Tables 8.5 and 8.6 of the ES, **CD2/82**). All of that water is to connect into the Ancient Woodland streams on the site via new piped connections. Whilst that flow rate will be to Q-Bar, or can be controlled to Q-Bar, it will focus flows onto a number of specific

locations in the ghyll stream woodland. The current undeveloped situation is where the water naturally flows within and around the irreplaceable habitat. The Appellant says this arrangement is "***anticipated*** *to successfully mimic the existing drainage regime within the Ancient Woodlands in terms of surface water runoff rate and water quality*" (paragraph 8.143 of the ES, **CD2/82** with my emphasis added). I fail to see how this can be the case. The entire SuDS proposal is to capture water and then direct it into the ordinary watercourses. It will no longer naturally sit and flow on the site, but instead will be directed via a network of piped connections to the watercourses. In addition, the concentration of water flows may cause accelerated, local erosion to parts of the gylll stream network. I consider that the Appellant has not provided sufficient evidence to demonstrate that this will not be the case.

3.9 Indeed, I have noted the submission within the Technical Briefing Note 08: Potential for hydrological connectivity to Sphagnum bed at Lake Wood (**CD2/98**). I have no reason or evidence to disagree with contents of paragraph 3.8 of that report that *"..on-site water remains on-site, currently draining with the lie of the land".*

3.10 In addition to flows with the lie of the land, in my opinion there may be some further, limited, potential for infiltration through bedrock joints of the Ardingly sandstone. Either way and in both scenarios, these flows are towards the lowest parts of the site which includes the Ancient Woodland. Post development, that surface water would be redirected to the ordinary watercourses via piped connections from the SuDS ponds.

3.11 As noted in the drainage SoCG (**CD2/98)**, the Appellants have known of the Council's concerns over drainage and the impact upon irreplaceable habitat for some time. However, the Appellant has not provided any evidence to demonstrate that its drainage proposals can be successfully implemented (i.e. the directional drilling) and will not adversely affect the Ancient Woodland. Instead, the suggestion is that this matter can be controlled at either Reserved Matters or by Planning Condition.

3.12 If consented, the SuDS basins would be positioned higher than the irreplaceable habit which is at a lower level in the land. I consider that it is not unreasonable to be cautious about what might happen in a breach scenario or exceedance.

3.13 I accept that, from a technical drainage point of view, it would be possible to control surface water drainage on the site by condition and as part of the reserved matters for the outline part of the appeal scheme. However, Mr. Robins sets out in his proof (**CD1/41**) that the decision-maker must be confident that the maximum quantum of growth proposed in the outline application can be accommodated acceptably at the Appeal Site. Having regard to the constraints on site,

including the irreplaceable habitat and the topography of the site, it is apparent in the context of the Appeal Scheme that there are limited options for the relocation of the 13 SuDSs attenuation ponds and especially their outlets in order to address the impacts upon the Ancient Woodland.

3.14 Overall, I consider that Appellant has failed to demonstrate that its drainage proposals will not impact upon Ancient Woodland. Above I have raised concerns regarding: the location of the SuDS basins, the drilled pipes and the potential for complications to arise during drilling, changes to the hydrological conditions onsite and the risk of exceedance of SuDS basins. It is for other witnesses to comment on what the ecological and arboricultural effect of this would be.

3.15 Finally, I note that my colleagues at the Local Lead Flood Authority concur that the drainage strategy is at concept stage and does not provide a design to fully demonstrate the illustrative layout is feasible in terms of a levels and drainage.

4 Conclusion

4.1 The Appeal Site is constrained by Ancient Woodland but also by the site geology and the high-water table which prevents infiltration which is the first recommended drainage method in the SuDS hierarchy. I note that the applicants have carried out infiltration testing which confirmed a high-water table and that the ground would not support an infiltration-based drainage system. The Technical Note (**CD2/98**) from the Appellants

4.2 It is also the case there are no adopted, public surface water sewers in the vicinity of the site, so this method of drainage is also unavailable.

4.3 The site drainage proposals comprise a series of swales and attenuation ponds directing water to the existing ordinary watercourses which are sited within the Ancient Woodland. I consider that the Appellant has not demonstrated that this will not materially affect the current hydrological conditions on the appeal site and ancient woodland.

4.4 13 SuDs basins are proposed. 9 of these are within highly sensitive areas amongst the buffers to irreplaceable habitat. The outflows from the SuDS are all via directional drilling within the Ancient Woodland. I rely on others to comment on the overall acceptability of effects on irreplaceable habitat, though I do see there are concerns about that. For example, what are described as 'ground bearing, prefabricated headwalls' are not shown in the submission (there is no drawing of what this might look like). Even so, I cannot see how these features will avoid soil compaction in the irreplaceable habitat. Owing to site geology, successful directional drilling can be prevented by soil and rock composition on proposed routes, for example, seams of sandstone, causing drilling to change direction or be aborted. In my view, there is a real likelihood that one or more of the proposed directional drillings will meet complication and not be able to be completed or will further damage Ancient Woodland habitat, soils or tree roots in the process.

4.5 In my view, it is possible to deal with the technical side of drainage matters. However, the drainage solution which has thus far been put forward by the Appellant raises a number of concerns with regards to its impact upon ancient woodland. As Mr Robins states, it is for the Appellant to demonstrate that it can accommodate the maximum number of housing numbers sought and, within the context of this application, it is

difficult to see how drainage could be achieved in a materially different way such that it would not adversely affect Ancient Woodland.