The Town and Country Planning Act 1990
Appeal Reference: APP/C1435/W/23/3321978

Planning Appeal by Gleeson Land

LAND AT DOWNLANDS FARM, UCKFIELD

Objection

Ref: 3321978 Downlands Farm, Uckfield – Amended plans

I object to the proposed development of this site, including the amended plans, in the strongest possible terms due the threat to the site's unique **mosaic of habitats.** The balance of biodiversity at the site (which I contend has not yet been fully realised due to gaps in ecological surveying) has been established over many hundreds of years.

On reviewing the appeal documentation **Dr Ross Piper** – entomologist, zoologist, ecological consultant and Fellow of the Royal Entomological Society stated:

> 'I haven't seen any housing development proposals on sites with such a superb range of habitats. A full invertebrate survey of this site would yield hundreds of species with many more rarities being added to the list'.

No attempt at mitigation will compensate for the loss of habitat during construction phases nor prevent the ongoing and permanent impacts caused by the development. Loss of habitat includes the replanted woodland that is growing on ancient woodland soils with ancient woodland indicator flora clearly present. Post-construction, **negative anthropogenic effects** on the ancient woodland and other high value habitats are inevitable given the proximity of the hundreds of residential houses and associated traffic. These include increased footfall and recreational activities; predation by domestic pets such as cats; dog and cat faeces; pesticides leaching into soils; introduction of microplastics from road dust and increased noise and light pollution.

The build site is connected to Budletts Wood (a broad-leaved semi-natural ancient woodland) abutting Paygate Wood and Shermanreed Wood (a wooded Ghyll). The valleys of both Longwood Gill (a wooded ghyll valley) and Shermanreed Ghyll flow into Shortbridge Stream, home to migratory Sea trout (*Salmo trutta)*, European eel (*Anguilla anguilla*) from Lake Wood and part of the upper Ouse basin. The **ecological continuity** of this ecosystem is an important functional characteristic and land fragmentation caused by the development will disrupt this continuity leading to loss of connected habitats, creating isolated 'habitat islands' which can directly affect species abundance (Lázaro et al., 1999 and Steffan-Dewenter et al., 1999). Invertebrates tend to be sedentary compared to other fauna which may be visiting the site for forage (nevertheless the importance of the site as a food resource should not be dismissed). Increased fragmentation means that local populations of invertebrates are increasingly vulnerable to local extinction, especially when subject to additional environmental stresses such as climate change.

Gaps in ecological surveying

A data search for the application area by Sussex Biodiversity Record Centre (SxBRC) (Sussex Biodiversity Record Centre, 2023) revealed:

3 x terrestrial mammals with attributed principal importance by the Natural Environment and Rural Communities Act 2006 Section 41 (NERC S41): -
European water vole (*Arvicola amphibius*)
European hedgehog (*Erinaceus europaeus*)
Brown hare (*Lepus europaeus*)

1 x NERC S41 Fungi: -
Zoned rosette (*Podoscypha multizonata*)

1 x NERC S41 Bryophyta: -
Slender thread-moss *(Orthodontium gracile)*

4 x NERC S41 ferns: -
Chamaemelum nobile
Euphrasia officinalis subsp. Anglica
Euphrasia pseudokerneri

Sium latifolium

35 x NERC S41 invertebrates including: -

Lepidoptera including 2022 and 2023 records of:

White Admiral *(Limenitis camilla)*
Small Heath *(Coenonympha pamphilus)*

Necklace ground beetle (*Carabus monilis*)

European mole cricket (*Gryllotalpa Gryllotalpa)*

These findings throw doubt onto the assurances from the appellant's environmental statement that 'no evidence for the presence of any protected, rare or other notable invertebrate species was recorded within the site' (Aspect Ecology, 2023a). Protected species surveys are not sufficient to make a realistic survey of the biodiversity of the site and any reasonable attempt at surveying terrestrial invertebrates would include a field survey listing over 500 different species, otherwise the thoroughness or timing of the survey should be called into question. Freshwater invertebrates should also have been surveyed at the site. The SxBRC advises that their data search should act as a starting point to on-site surveys. Due to the relatively high number of invertebrates of principal importance featured in the SxBRC report, the omission of a full on-site invertebrate survey is a matter of significance.

As the summary of the SxBRC report states 'even where data are held a lack of records for a species in a defined geographical area does not necessarily mean the species does not occur there – the area may simply not have been surveyed'. This reason for this caveat is in fact demonstrated by the results of an NBN Atlas search (NBN Trust 2022) of the site area which lists many additional invertebrate species. A pantheon analysis (Web et al., 2017) of these data show 21 species with conservation status (mostly insects) including the Wall brown (*Lasiommata megera*) (see table 1).

Species	**Family**	**Order**	**SQS**	**Conservation status**	**Habitat/resource**
Chaetocnema subcoerulea	Chrysomelidae	Coleoptera	4	NS	Acid & sedge peats; deep litter, wetland vegetation
Dolichopus virgultorum	Dolichopodidae	Diptera	4	NS	Acid & sedge peats; deep litter, wetland vegetation

Elodes elongata	Scirtidae	Coleoptera	4	NS	Wetland; coarse woody debris
Hydrochus angustatus	Hydrophilidae	Coleoptera	4	NS	Acid & sedge peats; shallow freshwater pond, sphagnum/moss lawn
Hydroporus neglectus	Dytiscidae	Coleoptera	4	NS	Acid & sedge peats, shaded woodland
Lythraria salicariae	Chrysomelidae	Coleoptera	4	NS	Tall sward, scrub
Mantura obtusata	Chrysomelidae	Coleoptera	4	NS	Tall sward, scrub
Trachys troglodytes	Buprestidae	Coleoptera	8	NR	Tall sward scrub; sward/field layer (damp)
Stenus kiesenwetteri	Staphylinidae	Coleoptera	4	RDB2 - vulnerable	Acid & sedge peats and sphagnum moss; wet/damp peat
Somatochlora metallica	Corduliidae	Odonata	8	NS & VU & Sussex Rare	Marshland, shaded woodland floor
Pachyatheta cribrata	Staphylinidae	Coleoptera	4	Notable or NS	Shaded woodland floor; dung and carrion, heavy shade
Lasiommata megera	Nymphalidae	Lepidoptera	1	NERC S41	Short sward, bare ground
Pelenomus waltoni	Curculionidae	Coleoptera	4	Nb	Marshland and wetland vegetation
Platydracus latebricola	Staphylinidae	Coleoptera	4	Nb	Short sward & bare ground; litter & ground layer
Tropiphorus elevatus	Curculionidae	Coleoptera	4	Nb	Shaded woodland floor
Xyleborus dispar	Curculionidae	Coleoptera	4	Nb	Decaying wood; dead trunks & branches, freshly dead
Phenacolimax major	Vitrinidae	Pulmonata	4	NS & NT (EU) & NT (global)	Shaded woodland floor
Clemnius decoratus	Dytiscidae	Dytiscidae	1	Nb	Marshland; shallow freshwater pond
Byctiscus betulae	Rhynchitidae	Coleoptera	4	Nb	Aboreal; understory
Ceutorhynchus constrictus	Curculionidae	Coleoptera	4	Nb	Tall sward & scrub; sward/field layer
Anopleta corvina	Staphylinidae	Coleoptera	4	RDB K – insufficiently known	Dung & carrion; damp
KEY: -					

NS = Nationally Scarce; NR = Nationally Rare; RDB2* = vulnerable; RDB K* – insufficiently known; VU = Vulnerable; Notable* = Notable or Nationally Scarce; Nb* = Notable B; NT = Near Threatened *pre-1994 criteria

Table 1 – extract from pantheon analysis of NBN Atlas data search results (Webb et al., 2017) listing species with nationally scarce and nationally rare status at Downlands Farm

Specialist species

A number of species present in the NBN Atlas data belong to assemblage types associated with heartwood decay (A211) and sapwood and bark decay (A212) (see table 2). This is evidence of saproxylic insects (specialists that inhabit wet and decaying woods) which are indicative of the presence of biodiverse microhabitats. This belies the statement made by the appellant that 'the majority of the site…supports few microhabitats that would typically indicate elevated potential for invertebrates' (see table 7.8 in Stantec, 2023). The woodland survey included in evidence by the appellant (Aspect Ecology, 2023b) shows that 14 out of 15 of the woodland compartments contain dead or decaying wood. Three of these, including Fir Tree Grove, suggest very significant amounts of deadwood including veteran trees. Fir Tree Grove 'contains a Veteran Oak T8036, which has a range of veteran features and a Veteran Beech T8039, having major stem decay with Ganoderma fungal fruiting bodies present' and the ash coppice stools in Shermanreed Wood are described as 'having substantial basal cavities and deadwood.'

It is reasonable to assume that the extensive wet, decaying wood on the site and within the site environs support a diverse assemblage of saproxylic insects and an interception trap survey is required to provide a meaningful study. Many of these species are difficult to identify in the absence of such a survey because the larvae inhabit inaccessible microhabitats and the adult stage of the life cycle is short-lived.

Species	**Family**	**Order**	**Specific assemblage type**	**Notes**
Choerades marginatus	Asilidae	Diptera	A212	
Agrilus laticornis	Buprestidae	Coleoptera	A212	
Anaspis fasciata	Scraptiidae	Coleoptera	A212	
Anaspis regimbarti	Scraptiidae	Coleoptera	A212	
Anisotoma humeralis	Leiodidae	Coleoptera	A212	
Cerylon ferrugineum	Cerylonidae	Coleoptera	A212	

Pogonocherus hispidulus	Cerambycidae	Coleoptera	A212	
Scaphidium quadrimaculatum	Staphylinidae	Coleoptera	A212	
Solva marginata	Xylomyidae	Diptera	A212	
Xyleborus dispar	Curculionidae	Coleoptera	A212	Nb – Notable B
Pachyatheta cribrata	Staphylinidae	Coleoptera	A212	
Lasiommata megera	Nymphalidae	Lepidoptera	A212	
Pelenomus waltoni	Curculionidae	Coleoptera	A212	
Platydracus latebricola	Staphylinidae	Coleoptera	A212	
Tropiphorus elevatus	Curculionidae	Coleoptera	A212	
Xyleborus dispar	Curculionidae	Coleoptera	A212	
Xestobium rufovillosum	Anobiidae	Coleoptera	A211	

Table 2 – extract from pantheon analysis of NBN Atlas data search results (Webb et al., 2017) listing species associated with specific assemblage types A211 (heartwood decay) and A212 (sap and bark decay)

It is noteworthy that the nearby SSSI site at Buxted Park, part of a historic nature corridor extending through Views Wood and Lake Wood, has been found to be of exceptional importance for conservation of invertebrates. These include saproxylic insects *Ptenidium gressneri* and *Prionocyphon serricornis* and otherwise nationally scarce beetles and flies – this is the same status attributed to many of the insects found in the NBN Atlas data (NBN Trust 2022) for Downlands Farm. This highlights the scientific importance of the numerous **invertebrates with conservation status** found in this desktop study and adds weight to the argument that more extensive surveying of the development site, including interception vane traps, is a necessity.

Other habitats on site which have potential to support a diverse assemblage of specialist species include: -

- Scrub in sheltered conditions
  (forming ecoclines between wood/hedges)
- Springs and seepages
- Wet flushes
- Bare ground
- Temporary ponds
- Geomorphological features in outcrop of Ardingly Sandstone at adjoining Lake Wood and Rocks Park including caves (Lake Wood)

Further evidence of specialist species such as *Necrophorus investigator* (Burying beetle) and *Cylindrinotus laevioctostriatus* (Darkling beetle) have been recorded in the site environs by Dr Martyn Stenning.

Light pollution and invertebrates

132 moth species have been identified at Lake Wood by Dr Martyn Stenning and 55 species appear in the local biodiversity record centre data search (SxBRC, 2023) – 27 of these are listed as NERC S41. It has been established that both the construction phase and post-construction life of the development will result in the widespread adoption of artificial lighting at night (ALAN) that will no doubt affect the sub-populations of moths at and around Downlands Farm. Insects, such as glow worms (*Lampyris noctiluca*) that use bioluminescence for signalling are known to be disorientated by ALAN and glow worms were recorded during the reptile survey of April/May 2023 (Aspect Ecology, 2023c). This is a growing field of research as scientists seek to understand the ramifications to insect dispersal behaviours and how ALAN may exacerbate effects of habitat fragmentation. Studies have shown that ALAN not only directly impacts reproduction and larval development of moths but also has indirect effects on all aspects of the moth life cycle together with top-down effects, as predators like bats are also affected (Stewart, 2021).

Comments on mitigation

The proposal for a SANG has not sought to avoid an area of high nature conservation value that includes ancient and wet woodland. Increased visitor numbers will inevitably lead to greater disturbance to a previously quiet site. Nutrient balance will be affected by dog faeces. Risks of fire, damage to trees and erosion from trespass are all introduced by the creation of a SANG. Although the appellant has cited precedent for structures such as a boardwalk through ancient woodland, these case studies cannot be directly comparable to the site of Downlands Farm and should not be cited as the justification for the deployment of a boardwalk here.

The mitigation hierarchy gives priority to **avoiding and minimising the impact of development on biodiversity** and it is perverse and contrary to the principles of mitigation to value a proposed future gain over and above the high value of biodiversity that already exists at the site. The gaps in ecological surveying are concerning, initial field observations and desktop surveys undertaken as part of this objection, together with historic survey data

from 2006, indicate that Downlands Farm already supports diverse assemblages and through habitat connectivity supports the biodiversity of the special habitats in its vicinity.

Studies have shown that the success of future biodiversity gains depend on unbiased modelling and whether they are ecologically realistic. Without proper governance to enforce the implementation of biodiversity net gains (BNG), it is recognised by experts to be a risky approach that is subject to real-world changes. It is a huge risk to compensate for the loss or damage of ancient habitat with a promise of **only a potential** future gain (Bezcombes et al, 2019 and Damiens et al, 2021).

Glossary of terms:

Mosaic of habitats
A network of different habitat types occurring closely together and are of ecological importance in supporting biodiversity.

Ecological continuity
A term often used to describe habitat with a continuous presence in the environment supporting habitat specialist species.

Habitat island
Distinct patches of habitat surrounded by an intervening matrix of contrasting habitat, having become separated as a result of habitat fragmentation.

Saproxylic insects
Term describing insects that rely on deadwood for their survival, either feeding on the wood directly or the fungi and mould species that inhabit decaying tree cavities. Others are predators of the species that feed on wood or parasitic species invading wasp or ant nests.

Specialist species
An organism that survives on a narrow diet or environmental condition (opposed to a generalist which can thrive in varied environmental conditions).

References

Aspect Ecology (2023a): *Baseline Ecological Appraisal (updated September 2023),* 5: Faunal Use of the site, p. 57

Aspect Ecology (2023b): *Baseline Ecological Appraisal (updated September 2023)*, Annex 5719/4: Woodland Botanical Survey Results 2020 – Compartment Descriptions and DAFOR Lists

Aspect Ecology (2023c): Table 5.23, *Baseline Ecological Appraisal (updated September 2023),* 5: Faunal Use of the site, p. 54

Lázaro, A., Fuster, F., Alomar, D. and Totland, Ø. (1999) 'Disentangling direct and indirect effects of habitat fragmentation on wild plants' pollinator visits and seed production'*, Ecological Applications,* 30(5). Available at: https://doi.org/10.1002/eap.2099

NBN Trust (2022). The National Biodiversity Network (NBN) Atlas. https://ror.org/00mcxye41

Stantec (2023): Table 7.8, *Enclosure 2: June 2022 Environmental Statement Biodiversity*, Chapter 7A, amended to reflect updated baseline survey information and SANG boardwalk proposal

Steffan-Dewenter, I. and Tscharntke, T. (1999) 'Effects of habitat isolation on pollinator communities and seed set'*, Oecologia,* 121, pp. 432-440. Available at: https://doi.org/10.1007/s004420050949

Stewart, A.J.A. (2021) 'Impacts of artificial lighting at night on insect conservation'*, Insect Conservation and Diversity,* 14(2), pp. 163-166. Available at: https://doi.org/10.1111/icad.12490

Sussex Biodiversity Record Centre (2023), report reference SxBRC/23/389 prepared 04/09/23

Webb, J., Heaver, D., Lott, D., Dean, H.J., van Breda, J., Curson, J., Harvey, M.C., Gurney, M., Roy, D.B., van Breda, A., Drake, M., Alexander, K.N.A. and Foster, G. (2017). *Pantheon - database version* **3.7.6**. [online] Available at: http://www.brc.ac.uk [Accessed **28/08/22**].

Appendix I

Downlands_pantheon_08/2022.xls