

Ecology response amended for F 23 94713 Cockpit Farm Barn, Knowle Lane, Horton Heath

Construction of six dwellings, including landscaping, parking and associated works following demolition and site preparation.

Alex Webb

10/5/23

Ecology

I have reviewed the amended PEA report by Ecosupport (revised 2 May 2023).

I maintain my objection as outlined in the previous ecology response 3/4/23, however the amended report has attempted to address the issue that ***the pre-development biodiversity value for the site is to be taken to be its biodiversity value immediately before carrying out the clearance activities.***

As stated in section 6.4.4 Limitations, *the BNG assessment was conducted using historical aerial imagery and photographs therefore it may not be a true representation of the habitats that were on site.*

Amendments were made to the following sections of the report. 1.2 / 4.2 / 4.5.2 / 4.6.3 / 4.7.2 / 4.8.2 / 5.0 / 5.2.1 / 6.4.

In Section 1.2 the aerial photo with the red line boundary shows that the red line boundary has been extended to include the entire formerly wooded area to the west and south of the current buildings, extending to the edge of the agricultural field. This has not been amended in all of the figures in the report, however it is taken to be understood.

The amended report lists the protected species potential of the pre-clearance site as:

low potential for foraging and commuting badgers, limited potential for reptiles, negligible potential for GCN, low potential for Dormice (restricted to the northern and the eastern boundary habitats on-site), high potential for nesting and breeding birds and moderate potential for hedgehogs. This has not been amended in the introduction (1.1) but was explained in sections 4.2 through 4.9.

Section 4.2 has been amended to include retrospective vegetation survey results based on historical aerial imagery and photos within the expanded red line boundary. The report states that the site had been recently cleared prior to the Phase 1 habitat survey done by Ecosupport in May 2022. The PEA for F/22/93315 (WD October 2022) (section 3.5.1), also written by Ecosupport states that the clearance occurred in December 2021. The bare ground in the photos looks cracked and dry with little vegetation remaining.

The removed woodland has been described as w1g other broadleaved woodland. I am not sure how accurate the prior-to-clearance species lists can be as it is not clear when that data was collected or by whom, however the photos that have been added to the report show that habitat did exist and has been cleared. I couldn't find any other ecological reports on any of the other

prior applications listed for this site (Q/08/62085 (no documents available), PN/21/92092, PN/22/92315).

Section 4.3.3 states that none of the trees remaining on site supported potential roost features (prfs) for bats. Some of the trees that were removed may have contained prfs but we have no way to determine this post clearance. Additional mitigation may be needed to replace woodland features for bats.

Section 4.5.2 states that the site has limited potential for reptiles. Although the cleared scrub may have had some reptile habitat suitability it is stated that *the areas of scrub on site do not support understorey vegetation* in the form of tussocky grassland (but there is no evidence for or against this statement) and there are records of reptiles within 1 km of the site.

Section 4.6.3 states that the site would have had negligible potential for great crested newts which I can accept due to lack of ponds nearby. I would also agree that potential for dormice to be using the site is low (but cannot be ruled out) and continues to be low due to lack of habitat connectivity with the nearest record 0.9 km to the southeast (fig 14, 4.7.2).

Comparing the pre and post development habitat maps the proposal would result in:

an increase in artificial unvegetated unsealed surface to the west of the proposed dwellings (replacing some of the already cleared woodland)

an increase in developed land sealed surface

an absence of dense scrub

the inclusion of two ponds within an area of other neutral grassland (which replaces scrub and woodland)

None of the dwellings appears to be allocated any vegetated private garden space in the post development habitat map, which would put recreational pressure on the areas shown as other neutral grassland, ponds and the retained woodland. The artificial unvegetated unsealed surface (marked u1c) is located in areas where I would expect to see domestic gardens for the residents of these houses.

The report mentions an increase in hedgerow units, but this is not shown on the UK Hab plans. The only area I can see with a linear feature is the w1g6 line of trees, which appears to be the same in both the pre and post development maps. No hedgerows (h2) are shown on either map and no features have been described in either version of the PEA which would meet the UK Hab definition of hedgerows. If there are any existing hedgerows on site they must be described and any proposed hedgerows should be shown on the plans. If the two lines of trees along the road are being used as hedgerow units for the purposes of the biodiversity metric, no evidence has been provided to show an increase in these units.

Since site clearance works were taken without adequate mitigation, an adverse impact on wildlife (as specified in the PEA report) would have already occurred.

The recommendations in section 6 of the report include one dusk emergence or dawn re-entry bat survey on the chicken barn, and a precautionary working method for dormice. Nesting birds, reptiles and hedgehogs should also be included in a precautionary working method which can be conditioned in a CEMP if this application is approved. Biodiversity enhancements as recommended in the report could also be conditioned. Further habitat enhancements could be provided as compensation for loss of habitat due to pre-survey clearance.

Surface water drainage

I have reviewed the surface water drainage report with the diagram/site plan (Aqua Callidus Consulting, no date) but added to the record 26/4/23). This includes a swale in addition to the two ponds shown on the post development UK Hab map in the most recent PEA (2 May 2023). Porous paving with attenuation storage is also shown in the access road and parking areas for the dwellings. On page 4 references are made to *dual use as a football field, chapter 7.2 and figs 7.4 and 7.5*. which is confusing. These are likely to be copy and paste errors and should be corrected.

Infiltration test results are required to determine whether porous paving would be effective on this site. The diagram at the beginning of the report implies that there would be 4 water quality treatments (porous paving with attenuation, 2 basins/ponds and a swale) and all surface water would be discharged off site to a watercourse. Attenuation ponds are not always water quality features so the design needs to reflect this function also. The CIRIA SuDS manual provides further guidance on this. EBC requires pollution mitigation calculations in addition to surface water volume. Further information is needed on whether any water is expected to infiltrate into the ground, how the water would move from the swale to the watercourse, the location of the swale (within the site boundary/woodland?) and ponds/basins with respect to the root protection zones of the existing trees, the profiling of the ponds (which have also been submitted as features to enhance biodiversity net gain), any pipe work that would be needed, how pipes would be routed, outflow details and exceedance routes. SuDS management and maintenance plans would also be expected but these can be conditioned.

Lisa Malter

Ecologist

3/4/23

Documents reviewed:

Preliminary Ecological Appraisal report by Ecosupport (February 2023)

Phase II Bat Survey Report by Ecosupport (July 2022)

Planning Design and Access Statement by NOVA Planning (February 2023)

Ecology response from previous application F/22/93315 (September 2022)

Landscape Strategy Plan by Deacon Design (Rev C, February 2023)

Response:

My colleague Sarah Boyd has objected to the previous proposal F/22/93315 in principle. These relate to any proposed development at this site. The proposals for this application have changed from the previous application, however the principle of development in this location has not changed. I also object to the development in principle.

Our objections are due to the following factors:

This site is not allocated for housing within the Local Plan and is allocated as Countryside Gap.

Additionally, the site is located within a Priority Biodiversity Link (identified in Eastleigh Borough's Biodiversity Action Plan) and an Ecological Opportunity Area (identified by HBIC).

The development will result in an unacceptable loss of habitat, including trees and broad-leaved woodland (a UK BAP Priority Habitat).

Development at this location will adversely affect biodiversity and limit ecological enhancement opportunities and contravene Policy DM11 which seeks to protect, conserve and enhance these ecological links, areas and habitats.

*Substantial clearance has taken place on the site prior to the ecological surveys being undertaken and habitat loss has already occurred. The surveys therefore do not reflect the true pre-development ecological value of the site. A significant area of trees, shrubs and understorey has been cleared which is likely to have provided suitable habitat for a range of species including reptiles, birds, bats, invertebrates, dormice, foraging barn owl and hedgehogs, all which have been recorded nearby. This has resulted in an unacceptable loss of habitat. In line with Schedule 14 of the Environment Act 2021 (which updates the Town and Country Planning Act 1990), **the pre-development biodiversity value for the site is to be taken to be its biodiversity value immediately before carrying out the clearance activities.***

The Preliminary Ecological Appraisal report identified that the site had high potential for breeding birds, moderate potential for hedgehogs, and low potential for foraging and commuting badgers. The Phase II Bat Survey report identified moderate commuting and foraging activity by multiple bats but no emergences from the building.

If the principle of development is deemed appropriate at this site, the following information would be required:

The entire area of the site as proposed and shown on the landscape plan will need to be surveyed and mapped and the Preliminary Ecological Assessment will need to be done for the entire site. The areas of the Landscape Strategy Plan and the habitat map in the Preliminary Ecological Assessment must be the same. The Phase 1 Habitat Survey map in the current Preliminary Ecological Assessment does not show the full extent of the site to the edge of the property, only the eastern half.

The biodiversity net gain calculations will need to be re-done to reflect the baseline biodiversity of the site before site clearance was done and cover the entire site for this application.

If any exterior lighting is required for security purposes, any lighting used will need to be bat and wildlife sensitive, and follow the latest guidelines.

From the previous ecology response: Surface water drainage Information regarding the treatment of surface water or how the scheme complies with policy DM6 has not been provided. Therefore, the changes to the hydrological regime (including water quality, water volumes and direction of flows) cannot be assessed. With regards to satisfying DM6, the site is approximately 0.75Ha and therefore needs a minimum of two stages of naturalised filtration. However, the site also lies within 100m of a tributary which drains into the River Itchen SAC, therefore a SuDS scheme must include at least three forms of naturalised filtration unless hydrological studies and project-level Habitats Regulations Assessment demonstrate this to be unnecessary to protect the integrity of the SAC and its qualifying features.

Although triple stage treatment of surface water drainage is discussed on the landscape plan with several potential drainage features shown on the plan, no specific information has been submitted which explains the proposed treatment train, potential volumes expected, discharge rate off site, path of discharge off site, exceedance flow paths, soil conditions, feasibility of proposed drainage, or the simple index approach for pollution mitigation. All of these issues would need to be addressed in a surface water drainage strategy and plan.

The following information was provided in the PDAS:

5.19 Surface water will be directed initially to a new driveway of permeable surface construction. From here water will be conveyed below surface to the first of two open attenuation basins. A regulated discharge will be made between basins which will be planted with appropriate native species to offer wider biodiversity benefits. From the second basin water will be released to an open swale/ditch where it will then be directed to the existing watercourse to the north. 5.20 The surface water drainage system will be designed to accommodate a 1 in 100 year plus climate change plus urban creep rainfall event. 5.21 Water butts should be installed to intercept roof water run-off. These will reduce the annual volume of surface water discharge but will not make a material contribution to regulation of critical run-off as these tend to be full during winter months as there is minimal demand for irrigation of domestic gardens in these months. 5.22 In summary source control will be provided by: § Porous Pavement § Domestic rain gardens § SUDS basins and Swales 5.23 The surface water strategy will significantly better the existing run-off regime. There will therefore be no adverse impact on flood flow rates outside of the site. 5.24 The existing site morphology is not going to be materially altered and so there will be no impact on local internal flood flow pathway and exceedance flows will continue to flow in their existing alignment within the site. 5.25 It is envisaged that the detailed drainage scheme can be secured by appropriately worded condition.

The watercourse to the north does not appear to be on or connected to this property. What arrangements would be needed to be able to discharge surface water drainage into this watercourse? It must be shown that a detailed drainage scheme is possible before it can be agreed to condition it. Soil conditions, the height of the existing water table and the slope of the land must also be taken into account to determine whether this is a potentially viable surface water drainage plan. Connecting these features would need to avoid the root protection zones of the existing and retained trees shown on the plan.

A CEMP would be required to ensure that sediment and other pollutants are not allowed to enter the watercourse during construction. The CEMP would also need to include precautionary working methods to protect bats, breeding birds, hedgehogs and badgers during construction.

Lisa Malter

Ecologist