

Land at Scotland Park, Haslemere – Phase 2

Rebuttal Proof of Evidence of Chris Jack (Ecology)

In the Re-Determination Appeal Against the Refusal of Application WA/2022/01887 by Waverley Borough Council
PINS Reference: APP/R3650/W/23/3327643

Prepared on behalf of

Redwood South West

Final Report

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1. INTRODUCTION

- 1.1 This Rebuttal Proof of Evidence (PoE) presents a response to matters raised within the Biodiversity and Ecology PoE prepared by the Rule 6 Party (R6P) formed by Haslemere South Residents Association (HSRA). It addresses in sequence each of the principal points of evidence presented in Sections 3 to 10 of the R6 PoE.
- 1.2 Several points and themes are reiterated at multiple occasions throughout the R6 PoE; as far as is practicable, I address each of these only once, in the section that appears most relevant. The fact that I may not have addressed any specific point in this rebuttal does not mean that I accept it.
- 1.3 Although principally attributed to Diane Moses, the R6 PoE is described as a collective production, and it is currently understood that Professor Tom Oliver and Dr Philippa Guest will respectively be speaking to the evidence provided in Sections 3 and 4 thereof. On this basis, I largely refer below to the R6P as being the collective author of this PoE, except where it can be presumed that the views expressed are those of Professor Oliver or Dr Guest.
- 1.4 I will be seeking to engage with Professor Oliver and Dr Guest in order to define and narrow the issues at dispute.

2. RESPONSE TO RULE 6 PARTY

Biodiversity Net Gain

'Relevance to this application'

- 2.1 From 3.1, the R6 PoE refers to the position, agreed between the Appellant and Waverley Borough Council (WBC), that the Appeal Proposal pre-dates and is not subject to the statutory requirement for measurable Biodiversity Net Gain (BNG), and to a supporting appeal decision cited in the Statement of Common Ground (SoCG).
- 2.2 At 3.2, the R6P cites another appeal decision ('Land to the west of Northwick Road'), with the apparent intention of contradicting the agreed position. The quoted excerpt states that, even in the absence of a statutory requirement, the provision of a net gain in biodiversity is required by the NPPF. This is consistent with the position agreed in the SoCG.
- 2.3 At 3.3, the R6P cites a reference to the then-emerging statutory target of 10% BNG in the Haslemere Neighbourhood Plan (HNP; **CD6.3**) and relates this to the requirements of HNP Policy H12.3. This should not however be taken to mean that Policy H12.3 itself provides for a 10% BNG target: it simply states that "*Development proposals should result in a net gain for biodiversity*".

- 2.4 The point (if any point is intended) is in any case academic given that the Appeal Proposal is projected to significantly exceed the 10% BNG requirement that now applies to new applications. For the avoidance of doubt, there is no mechanism by which the statutory requirement for BNG might retrospectively be applied to the Appeal Proposal.

'Biodiversity Mitigation Hierarchy'

- 2.5 From 3.4, the R6P asserts that “*proper adherence to the Biodiversity mitigation hierarchy principles would have led to selection of a more suitable site to avoid biodiversity impacts*”, and that the Appeal Proposal consequently fails to accord with paragraph 193 of the NPPF or the “*biodiversity net gain approach*”. In aid of this assertion, it is noted that the Appeal Site occurs within the ‘Surrey Hills AONB’ and ‘Landscape Character Area GW5’ (neither of which are nature conservation designations), and that there is “*high biodiversity value within the proposed site boundary*” – the nature and potential sensitivity of which the R6P forebears to expound at this stage.

- 2.6 193a of the NPPF requires that:

“if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused.”

- 2.7 As explained in my main PoE, the conclusion of the extensive process of assessment and consultation to which the Appeal Proposal has been subject is that important ecological features within the project’s zone of influence will not be subject to significant residual negative effects, and the Appeal Proposal will be capable of proceeding in accordance with relevant nature conservation related legislation and policy.

'Biodiversity Net gain through Woodland Restoration' [sic]

Effects of Proposed Conifer Removal

- 2.8 At 3.7, the R6P asserts that the phased removal and restocking of non-native coniferous plantation, proposed as an enhancement for biodiversity, will in fact make the woodland “*less biodiverse*”, on the basis that “*this will still be reduction to the current bird and insect diversity*” in addition to “*overall tree diversity*”.

- 2.9 This argument - for which no supporting evidence is provided - has no merit and is contradicted by a wide range of good practice guidance.

- 2.10 The Forestry Commission Practice Guide for the ‘Management of Semi-Natural Woodlands’ (2003; excerpt provided as **Annex 1**) advises that non-native conifers should be eradicated or thinned out:

“Several non-native tree species have colonised or have been planted into mixed broadleaved woodland, including beech (which is native in other forest types), several conifers and well-established denizens such as sycamore, chestnut and Norway maple. Chestnut and beech may be retained as part of the mixture on the ground they occupy, i.e. their spread should not be extended by planting. Others should be eradicated if they occupy less than 10% of the wood. If they are more widely and abundantly established, they should be controlled during thinning as minority constituents of the mixture.”

- 2.11 The benefits of “*increasing proportion and diversity of broadleaved species to support native ecological communities*” are also promoted in the Forestry Commission’s 2025 Research Note on ‘The Management and Creation of Woodland for Biodiversity and Wider Environmental Benefits’ (excerpt provided as **Annex 2**):

“Removing non-native conifers and reinstating native broadleaves can allow the re-establishment of native ground flora and create more available niches for wildlife.”

- 2.12 Under the Countryside Stewardship (Higher Tier) option ‘WD2: Woodland Improvement’ (excerpt provided as **Annex 3**), central government offers a financial incentive for landowners to “*reduce the percentage of coniferous species*” and restock with native tree species following the removal of conifers.

- 2.13 A joint publication of the People’s Trust for Endangered Species and Natural England, ‘Managing Small Woodlands for Dormice: A Guide for Owners and Managers’ (excerpt provided as **Annex 4**), advises that:

“The problem for dormice however, is that ageing conifer plantations cast dense shade and will prevent understorey and scrub regeneration thus reducing the food and nest sites available. Conifers should be removed over time, either in small blocks or to open rides.”

- 2.14 The relatively limited biodiversity value of non-native coniferous woodland is also recognised in Defra’s Biodiversity Metric, of which both the current ‘Statutory’ version and the 3.0 version used in the assessment of the Appeal Proposal categorise ‘other coniferous woodland’ as a habitat type of ‘low’ importance or ‘distinctiveness’ - the same weighting that applies to arable cropland, private gardens, and ‘bare ground’.

- 2.15 Even without allowing for any improvement in habitat ‘condition’ (a diverse and actively managed native broadleaved woodland would certainly be attributed with a higher level of condition than an even-aged stand of non-native conifers), the replacement of ‘other coniferous woodland’ with ‘other broadleaved woodland’ (a habitat type of moderate distinctiveness) registers as a significant measurable net gain under both the 3.0 and Statutory versions of the Metric versions.

Phase 1 Biodiversity Offsetting

- 2.16 At 3.8, the R6P refers to the “*track record of the developer*” in delivering biodiversity interventions which were proposed within the current Appeal Site to offset the ‘Phase 1’ Scotland Park development. The Appellant acknowledges that the proposed linear bands of scrub planting include a small proportion of non-native species that do not accord with the biodiversity-related objectives for these areas, and has committed to arranging their removal forthwith.

- 2.17 The R6P further suggests that “*Condition 21 of the Phase 1 application requires an Ecological Management Plan to be delivered and implemented before the first occupation but there is no evidence that this has occurred yet.*”

- 2.18 This is incorrect. Condition 22 of the Phase 1 permission (**CD9.1**; condition 21 is concerned with unexpected contamination) requires the submission and approval of a Landscape and Ecological Management Plan (LEMP) before the commencement of works. There is no requirement for the approved Phase 1 LEMP to be fully implemented before first occupation – nor would such a requirement be practicable.

- 2.19 The approved Phase 1 LEMP sets out prescriptions for annual ecological monitoring and the submission of a compliance report to the local authority, thereby providing a mechanism for securing the delivery of the proposed biodiversity-related interventions. In the event that the Appeal is granted, a further layer of security would be provided – in respect of both the Phase 1 ‘offsets’ and the proposed achievement of BNG by the Appeal Proposal – through the management and monitoring measures prescribed in the Phase 2 Outline LEMP (**CD1.41**; to be succeeded by a detailed LEMP pursuant to draft condition 35) and the SANG Management Plan (**CD1.42**; the provisions of which would be secured indefinitely by law), and additionally by the requirement for an updated BNG assessment and delivery and monitoring strategy pursuant to draft condition 38.
- 2.20 If the Inspector has any concerns about how the positive biodiversity interventions are to be secured, it seems to me that there is a clear framework for this to be addressed through suitable conditions, consistent with normal practice – in addition to the further significant level of in-perpetuity securement that applies to the SANG. I will seek to engage with Professor Oliver/the R6P to ascertain what conditions they are seeking.

‘Lines of Trees’

- 2.21 At 3.9, the R6P identifies a single point of ‘quantitative’ dispute with the submitted BNG assessment and notes that this:

“reflects a similar issue in the Phase 1 development, where the developer assessed woodland (both adjacent to the current Phase 2 and some within the site boundary) as poor quality, though my own independent assessment judged it to be moderate.”

- 2.22 I understand that this point is put forward by Professor Tom Oliver. As I observed in my main PoE, this reflects his submissions in respect of the Phase 1 application and appeal (which were previously cited as the basis for HSRA’s objections to the BNG assessment of the Appeal Proposal). That case was not accepted by Inspector Hockenull (see my PoE at 3.11-3.12).
- 2.23 The current point of dispute is whether the condition of a single line of trees (identified as HEN No. 10 in the R6 PoE) should be categorised as ‘moderate’ - as per the submitted BNG assessment - or ‘good’ - as per a recent report issued by GS Ecology and prepared by various contributors to the R6 PoE.
- 2.24 As I have noted in my main PoE, the baseline data which informed Engain’s assessment of the Appeal Proposal was assembled over the course of a comprehensive survey programme that has extended from 2018 to 2025. The assessment reported in the ‘Ground Truthing Haslemere Ecological Network (Red Court Corridors)’ document provided by the R6P was reportedly *“based on ecological surveys”* carried out during an accompanied site walkover on 6 February 2025 and a further visit of 26 February, of which the Appellant has no record.
- 2.25 The GS Ecology assessment was undertaken *“using the Statutory Biodiversity Metric condition assessment methodology”* – i.e., a different methodology from the Engain assessment, which used the then-current 3.0 version of the Metric. I note for completeness that the Appeal proposal pre-dates the statutory requirement for BNG and the institution of the now-extant Statutory Metric; there is no requirement for the submitted assessment to be updated in accordance with the current (or any subsequent) iteration of the Metric - and, quite properly, no party has asserted the contrary. Defra guidance holds that *‘If a project has already begun using a previous version*

of the Biodiversity Metric we do not recommend changing metrics midproject, as this may result in discrepancies between calculations¹.

2.26 In order to be attributed with ‘good’ condition under the respective Biodiversity Metric 3.0 habitat condition assessment guidance, a line of trees must pass all of five applicable condition assessment criteria, of which criterion 5 requires that:

“At least 95% of the trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.”

2.27 According to the submitted Tree Survey (**CD1.38**), which was conducted according to a standard and approved method by a suitably qualified arboriculturist, the feature in question comprises seven individually assessed trees (T173 – T179) and three small tree groups (G116 – G118). As set out in **Table 2.1** below, the Tree Survey entries for the respective trees include various relevant observations of adverse tree health indicators and evidence of damage arising from human activity.

Table 2.1: Relevant Excerpts from Tree Survey (Trees within ‘HEN No. 10’)

Tree	Species	Life-stage	Relevant Notes on Condition
T175	Silver Birch	Mature	Old pruning wounds Minor deadwood in crown
T176	Silver Birch	Mature	Unsuitable for retention Poor quality tree Major decay at base
T177	Silver Birch	Mature	Unsuitable for retention North trunk has apical dieback Decay at base of north trunk
G116	Holly Hazel	Early mature	Old pruning wounds Topped: growing beneath power lines
G118	Holly Rowan	Early mature	Basal suckers Rowan has decay at base Remove rowan to north end of group

2.28 My opinion is that the arboricultural evidence supports the conclusion that this line of trees fails to meet the requirements of criterion 5 above, and consequently that its attribution by Engain with ‘moderate’ condition is reasonable and credible.

2.29 Even if, contrary to my view and Engain’s, the R6P’s assessment of the condition of the tree-line were accepted, the resultant overall effect on the BNG assessment would be marginal: the Appeal Proposal would still be projected to achieve 33% net gain in habitat (area) units; the projected net gain in hedgerow (linear) units would fall from 24% to around 23%.

2.30 It is also important to note that the current assessment is in any case provisional: further opportunities for the incorporation of positive biodiversity interventions could be pursued at

¹ Natural England, 2022. Joint Publication JP039 Biodiversity Metric 3.1 Frequently Asked Questions.

subsequent planning and design stages, and in the update BNG assessment and strategy required by draft condition 38.

- 2.31 Accordingly, it seems to me that this point – while reasonable in the sense that it contests a matter of professional judgement – ultimately goes nowhere in terms of the issues to be decided on the Appeal.

‘Providing excess habitat units for development elsewhere’

- 2.32 At 3.10, the R6P asserts that *“For the reasons described above, this proposal is unlikely to lead to the promised net gain for biodiversity”, and that “this is even more of an issue when the appellants propose to use excess net gain units to enable further development”*.

- 2.33 I have already addressed the substantive points made by Professor Oliver in relation to the BNG calculation which can be summarised as:

- His argument that the phased removal of non-native coniferous plantation – widely recognised as good practice in woodland restoration – would be harmful to biodiversity;
- His argument around the confidence which can be had in the mechanisms to secure the biodiversity improvements proposed ; and
- His argument for an alternative condition assessment of a single line of trees.

- 2.34 As I have explained, none of these points are capable of having more than a marginal effect on the overall assessment.

- 2.35 In relation to the potential release of surplus biodiversity units, the R6P cites a 2023 Defra consultation document to the effect that these should be *“above and beyond the gains required by the original development to meet the mandatory BNG requirement and to make the development acceptable to the local planning authority.”*

- 2.36 The relevance of this point is not clear. Schedule 4 of the draft Section 106 agreement prepared for the first Inquiry (**ID5.49**) defined such ‘excess BNG units’ as those which exceed the quantum required to achieve the 10% BNG secured by the conditions of the planning permission plus a further 10% on-site net gain. In other words, only biodiversity units additional to the achievement of 20% on-site BNG (double the statutory requirement that now applies to new applications) would be made available to release sustainable development elsewhere.

Lack of complete impact assessment for Wildlife Corridors

‘Impact of Wildlife Corridors becoming “within settlement”’

- 2.37 From 4.1, the R6P (Dr Guest) asserts that the Haslemere Ecological Network (HEN) wildlife corridors would be adversely affected by what it describes, in relation to the aforementioned ‘HEN No. 10’ ‘Central Corridor’, as *“its presence and vulnerabilities of being within settlement”*. The purported basis of this point of objection is that:

“The HEN distinguishes between those Corridors within and those outside of the settlement boundary. Those Corridors within settlement are generally considered by HB not to meet the UK Habitats classification criteria of a native Line of Trees or Hedgerow, due to non-

native, undesirable species, fences, roads, drives, paths and other services or infrastructure generally impacting most Corridors 'within settlement'. Therefore, 'within settlement' Corridors are generally of lower-value for wildlife and biodiversity, because they often no longer meet UK Primary Habitat definitions such as a native Line of Trees or a Hedgerow, when compared to 'outside settlement' Corridors."

- 2.38 No reference is provided to the discussion of this purported point of distinction by or within the HEN or HB (Haslemere Biodiversity). The only relevant text in the 'Biodiversity Audit of Haslemere's Ecological Network' (CD7.54) states – without explanation - that corridors "*within the settlement boundaries are [mapped as being...] narrower than those without*".
- 2.39 While it may well be the case that existing hedgerows and tree-lines within the settlement of Haslemere generally have a more urban character than those beyond, it does not follow that that the Appeal Proposal would result in a fundamental change in the nature of the baseline linear habitats, such that the mere proximity of residential development would cause a 'native line of trees or hedgerow' to transition into a different habitat type – particularly where such features are retained within SANG or other open space, and subject to suitable conservation-led management pursuant to the LEMP or SANG Management Plan.
- 2.40 At 4.3, the R6P draws particular attention to the 'western corridor', adjacent to Midhurst Road, and suggests that the Engain assessment disregards its links to "*hedges and Ancient Woodland*" adjacent to Sturt Farm in addition to the impact of its becoming "*within settlement*".
- 2.41 This 'western corridor' is the roadside vegetation along the A286, extending from its junctions with the A287 to Haslemere High Street. The greater part of this corridor is already within the mapped settlement boundary, and there are numerous access junctions and streetlights along its length.
- 2.42 I should note for completeness that neither Natural England's provisional Ancient Woodland Inventory nor the Biodiversity Audit of Haslemere's Ecological Network identify any 'ancient woodland' at Sturt Farm; the purported occurrence of this habitat appears to represent the personal view of Dr Guest – although this is rather a moot point. The 'connection' between the Red Court and Sturt Farm areas is formed by the extensive tree canopy cover over the intervening Midhurst Road, and this would of course remain post-development, with the only difference being a further small break in the vegetation at one side of the road only, where access to the Appeal Site is proposed.
- 2.43 The corridor sections of particular concern to the R6P are listed as 'HEN No. 1, 2, 14, 15' - of which the latter is identified in Map 2 of the R6 PoE as a garden hedge. The retained vegetation within these sections would be generously buffered from residential development within the expanse of public open space and SANG proposed along the western edge of the Appeal Site.
- 2.44 It follows that I do not agree that the Midhurst Road and broader HEN corridors would be significantly impacted by the proposed development.

'Tree removal at proposed access road location'

- 2.45 At 4.8, the R6P suggests that the stumps of two roadside trees, felled by Surrey County Council in late 2024, have become home to stag beetles and other specialist invertebrates of decaying wood, and now comprise "*important woody residues of woody biomass and carbon balance.*"

The R6P asserts that the impact of removing these stumps – as part of the proposed provision of access to the Appeal Site - has yet to be evaluated by the Appellant.

- 2.46 It should hardly be necessary to state that the Appeal Proposal has been assessed and found to be acceptable and beneficial, in nature conservation terms, on the basis that it would require the wholesale removal of these no-longer-extant trees, and that this conclusion remains valid now that only the removal of their stumps is required.
- 2.47 At 4.9, the R6P asserts that the Appeal must be refused due to the presence of a veteran beech tree within the proposed access road area. It does not indicate which tree it considers to be a veteran or present any evidence in support of this opinion, which I assume is Dr Guest's.
- 2.48 Appendix 5 (**ID3.2**) to Mr Collins's Second Planning Rebuttal for the first Inquiry provides an arboricultural response to similar assertions made by Howard Brown of HSRA during the public session. I concur with its conclusion that none of the trees proposed for removal warrants the high level of policy protection afforded by 193c of the NPPF to veteran trees of "*exceptional biodiversity, cultural or heritage value*".
- 2.49 At 4.10, the R6P asserts that the proposed planting to either side of the access point fails to account for "*visual splay*", and that this "*demonstrates inadequacy in the assessment of the impacts and mitigation strategy*." This assertion is incorrect; the landscape proposals are in accordance with the visibility splays indicated in ESA Appendix 2 (**CD2.45**).

'Failure to adequately evaluate tunnel mitigation'

- 2.50 From 4.12, the R6P raises various concerns regarding the efficacy of a proposed wildlife tunnel which forms part of a suite of mitigation measures described in Matt Davies's Ecology PoE to the first Inquiry (**ID2.6**).
- 2.51 In particular, the R6P asserts that the "*literature*" cited by Mr Davies (at 4.18 of his PoE) to the general effect that "*Wildlife tunnels under roads can provide an effective means of reducing wildlife mortality*" is from "*studies in Australia and America and do not relate specifically to UK species*". While this is (quite literally) an academic point, the 'American' study cited by Mr Davies (*van der Ree et al., 2007*²) is in fact an international review into the effectiveness of strategies to mitigate the barrier effect of roads. The use of wildlife tunnels is well-established in the UK and promoted in the Herpetofauna Workers Manual among other articles of good practice guidance.
- 2.52 Other points of objection raised by the R6P include:
- That the tunnel proposals are insufficiently detailed (full details are required by draft condition 35);

² van der Ree, Rodney; van der Grift, Edgar; Gulle, Nadine; Holland, Kelly; Mata Estacio, Cristina; Suarez, Francisco (2007) Overcoming the barrier effect of roads - How effective are mitigation strategies? An international review of the effectiveness of underpasses and overpasses designed to increase the permeability of roads for wildlife. *International Conference on Ecology and Transportation*

- That the width of the tunnel would need to be at least 1m (significantly exceeding the standard diameter of tunnels prescribed for even relatively large animals, such as badgers);
- That the tunnel “*may succumb to flood*” (the nearest land within flood zone 2 or 3 is more than 300m distant); and
- That the tunnel and broader mitigation proposals “*would not work for most and possibly all of the targeted species.*”

- 2.53 The purpose of the proposed tunnel, as described in both Mr Davies’s PoE (ID2.6) and SWT’s response (ID5.5), is simply to “*facilitate the movement of wildlife*” along the Appeal Site’s western boundary. As related in my main PoE, this proposal, taken as part of the broader impact assessment and mitigation strategy set out in Mr Davies’ PoE, was sufficient to enable SWT to withdraw its concerns regarding potential effects on the HEN wildlife corridors.
- 2.54 From 4.14, the R6P asserts that dormice in particular are “*extremely unlikely*” to utilise road tunnels “*as they are known to rarely travel along the ground, with no reports of them utilising tunnels.*” This is not quite correct: although certainly preferring to disperse through arboreal habitat, dormice will readily cross short sections of open ground, including over roads, and have been recorded dispersing up to 500m at ground level³. Chanin & Gubert (2012)⁴ discuss the well-documented occupation of the central reservation of the A30 by dormice and advise that “*Medium sized roads (<12m) should not be seen as barriers to dormouse movement*”. The potential maintenance of habitat connectivity through tunnels and culverts is discussed in the Dormouse Conservation Handbook. Moffat *et al.*, (2022)⁵ describe the recent installation of dormouse ‘bridge’ structures within two >40m long highway underpasses. Chanin (2011)⁶ describes the installation of a similar underpass structure, under licence, as part of the mitigation strategy for a new road construction.
- 2.55 To put the matter in context: the affected ‘corridor’ is the roadside vegetation along the A286, extending from the A287 to Haslemere High Street, and intersected by numerous existing access junctions. As noted in Mr Davies’ PoE, the importance of this corridor as a dispersal route for dormice – *i.e.*, the need for dormice to commute to and from central Haslemere – is, at best, rather questionable. This point notwithstanding, given that there is canopy connection over a significant proportion of Midhurst Road – *i.e.*, continuous arboreal habitat links between one side and the other - the localised removal of vegetation from one side, to provide one additional access junction, will not significantly affect its permeability to dormice. For this reason, Mr Davies’s PoE characterises the proposed tunnel as no more than an “*alternative route*”.
- 2.56 Irrespective of the utilisation of the proposed wildlife tunnel by this species, my view is that the proposed provision of highways access will not result in a significant effect on the ability of

³ Buchner, S., 2008. Dispersal of dormice in a habitat mosaic. *Act Theriologica*, 53

⁴ Chanin, P. & Gubert, L, (2012). Dormouse movement in a landscape fragmented by roads. *Lutra*

⁵ Moffat, D., White, I., Béga, S. and Aburrow, K., 2022. Structural re-design of the Animex Wildlife Bridge for the Hazel Dormouse (*Muscardinus avellanarius*): Lessons learnt from two connectivity mitigation case studies in the UK. *Folia Primatologica*, 93(3-6)

⁶ Chanin, P. (2011). Underpasses for dormice? *The Dormouse Monitor*, spring 2011

dormice to disperse across and along the A286 corridor, as – even notwithstanding their readiness to cross minor (and medium-sized) roads – suitable arboreal habitat connectivity will remain.

Lack of complete assessment of impact on Hazel Dormice

- 2.57 From 5.2, the R6P raises various further concerns regarding dormice, including the assertion that Engain has incorrectly “*ruled out*” impacts upon dormice in relation to the ‘central’ and ‘eastern’ HEN corridors on the basis that no evidence of dormice was recorded within either feature during either the 2018 or 2022 surveys. This is not an entirely accurate characterisation of Mr Davies’s PoE to the first Inquiry (**ID2.6**) which in fact states that such “*impacts can be largely ruled out*”, while acknowledging that the survey evidence does not constitute “*exhaustive proof*” and that a “*small but acceptable risk of presence remains*”.
- 2.58 Given that the central and eastern corridors merely provide a connection to residential curtilage vegetation at the southern end of the existing settlement; the persistence of parallel opportunities for northward dispersal including along the A286 corridor (as related above); and that, in any case, dormice will (as I have also related above) cross even medium-sized roads, I am satisfied that the provision of road access through these corridors will not result in a significant effect on this species.
- 2.59 At 5.4, the R6P returns to the point of “*connectivity*” with habitats at Sturt Farm to the west. As I have explained above, this ‘connection’ is formed by the extensive tree canopy cover over the intervening Midhurst Road, which would of course remain post-development, with the only change being a further small break in the vegetation at one side of the road only, where access to the Appeal Site is proposed.
- 2.60 At 5.5, the R6P asserts that “*the assessment takes no account*” of operational phase effects, such as predation by pet cats. This is incorrect: such effects are discussed in Table 9.5 of the ES Ecology Chapter (**CD2.28**). I concur with Engain’s assessment that an increase in the local pet population will not result in such an increase in mortality as to constitute a significant effect on the dormouse population. As stated in the Dormouse Conservation Handbook, dormice are rarely predated by cats: cats are not proficient arboreal predators. Even in stronghold areas, dormice constitute a miniscule proportion of domestic cat kills⁷ (excerpts provided as **Annex 5**).
- 2.61 From 5.10, the R6P argues that the Appeal should be dismissed because there is no guarantee that any required protected species mitigation licences would be granted by Natural England. In doing so they misrepresent the conclusions of the Supreme Court in *Morge*, which I understand held that the duty of a planning authority was simply “*to have regard to the requirements of the Directives so far as they may be affected by the exercise of those functions*”.
- 2.62 They provide no evidence as to why this common form of mitigation licence would not be granted. I concur in the opinion shared by Engain and SWT that the Appeal Proposal will not result in significant adverse effects on the local dormouse population (or other ecological

⁷Lockwood, H.L., Bulling, M. and Huck, M., 2025. What the Cat Dragged in: Quantifying Prey Return Rates of Pet Cats (*Felis catus*) With Outdoor Access in the UK. *Ecology and Evolution*, 15(3)

features). There is no realistic basis for contending that a mitigation licence is unlikely to be granted. Engain has confirmed to me that such a licence has of course been granted to enable habitat clearance within the 'Phase 1' development, despite similar comments from local objectors.

Lack of complete assessment of bats

- 2.63 At 6.2, the R6P provides an anecdotal record to the effect that at least eight bat species, including the western barbastelle, have been recorded on "*National Trust land adjoining Red Court*". It is not clear why the R6P considers that this information supports its view that the "*assessment of bats*" that informs the Appeal Proposal is incomplete: as related in my main PoE, at total of nine bat species, including the western barbastelle, was recorded during the assessment programme conducted by Engain.
- 2.64 At 6.3, the R6P discusses - and attempts to disparage - the proposed installation of bat boxes in new dwellings for the purpose of (what it characterises as) "mitigation". The R6P suggests, on the basis of "*anecdotal feedback*", that such measures not only "*very rarely prove successful*", but that they can be actively harmful to rarer species, particularly including the barbastelle. This recalls similar, and similarly unevidenced, arguments, presented in HSRA's 'Objection Statement' (**CD3.21**), to the effect that the "*the addition of Bat boxes to homes [...] is discouraged by all prominent bat experts as a dangerous practice*", and that "*Bats are inherently lazy and if they have a house rather than their previous woodland for a home, they tend to starve.*"
- 2.65 It is hardly necessary to state that provision of building-integrated bat roosting features in new dwellings is widely practised; is mandated by biodiversity policy in several local authority areas; and is actively promoted by the Bat Conservation Trust, including on its website⁸ and 'Bats and Buildings' advice note (excerpt provided as **Annex 6**).
- 2.66 Setting aside its lack of any technical merit, the discussion at 6.3 is predicated on a fundamental misunderstanding: the provision of these features is not required or proposed as mitigation (it is discussed in neither the ES Ecology Chapter nor in Mr Davies's PoE to the first Inquiry) but as an enhancement for biodiversity.
- 2.67 As set out in the Outline LEMP (**CD1.41**) and SANG Management Plan (**CD1.42**), the proposed bat box provision will include both building-integrated and tree-mounted features, and will be "*targeted at species known to use the Site*", specifically including the barbastelle.
- 2.68 At 6.4, the R6P asserts that the extent of proposed tree removal - including the removal of "*1 wooded coniferous plantation*" - would "*cause a significant loss of foraging habitat*". It omits to mention that the proposed removal of non-native coniferous plantation is part of a biodiversity-led phased transition to native broadleaved woodland, or the broader benefits of the habitat creation and enhancement proposed within the extensive green infrastructure provision that would constitute 78% of the Appeal Site. These benefits are characterised in my main PoE,

⁸ <https://www.bats.org.uk/our-work/buildings-planning-and-development/bat-boxes/external-ready-made-bat-boxes-integrated-bat-boxes>

which also describes how the overall net effect of the Appeal Proposal - the balance of positive and negative interventions - has been tested through the BNG assessment.

- 2.69 At 6.5, the R6P asserts that the bat surveys undertaken to inform the Appeal Proposal are “*now over 18 months old and fail to capture data across the whole development site*”. No evidence is presented in support of the latter point. The extensive spatial scope of the 2022 bat activity surveys is clearly represented in Figures 4-3 and 4-4 of the submitted Ecological Survey Report (**CD2.48**).
- 2.70 In support of the former point, the R6P asserts that “*The CIEEM Advice note on the Life Span of Ecological Reports states that for “data between 18 months to 3 years old “A professional ecologist will need to undertake a site visit and may also need to update desk study information....”*”.
- 2.71 The respective CIEEM Advice Note (excerpt provided as **Annex 7**) is in fact concerned with the risk of “*early ecology surveys becoming out-of-date*” as a result of “*the time taken between commencing the scoping or design and submitting a planning application*” – not with the implications of an elongated determination period as applies in the present case.
- 2.72 In any case, as I have stated in my main PoE, update walkovers were conducted by Engain in February 2025 and by myself in March 2025, in order to confirm that the findings of the assessment programme continue to hold true.

Lack of robust GCN survey data

- 2.73 At 7.1-7.2, the R6P presents the possibility that great crested newts (GCN) might migrate into the Appeal Site if breeding in either of two garden ponds (ponds 12 and 13 in in the R6 PoE and application material (**CD12.3**), not accessed for survey by Engain, by exploiting opportunities to traverse the intervening River Wey, either by the use of “*natural crossing points*”, such as “*fallen logs*”, or over road culverts where the Wey is intersected by Bell Vale Lane. Map 3 of the R6 PoE indicates a notional dispersal distance of approximately 460m between the most proximate of these ponds and the proposed point of highways access to the Appeal Site, via a road culvert and through private gardens to both north and south of Bell Vale Lane.
- 2.74 It is important to note that protected species surveys are concerned, in the first instance, with establishing the presence or likely absence of the species in question, as it is seldom possible for absence to be proven with absolute certainty – just as it is seldom possible to absolutely exclude or eliminate all potential risk of harm.
- 2.75 I concur with Engain’s assessment that GCN are unlikely to be present within the Appeal Site or at risk of harm from the Appeal Proposal.
- 2.76 Conventional practice in relation to GCN is to assess ponds within 250m of development – unless effectively isolated therefrom by barriers such as roads and rivers - with consideration of ponds up to 500m distant only arising when both the intervening and ‘destination’ habitat is particularly conducive to dispersal. The risk of GCN - if present within these ponds - dispersing therefrom over such a distance via a road culvert or more opportunistic crossing point, and through areas of suboptimal habitat such as private gardens and the short sward grassland of the Appeal Site, is remote - not least given the abundance of suitable terrestrial habitat close to and to the south of these ponds.

- 2.77 At 7.3, the R6P notes the presence of an “unmarked” pond - not addressed in Engain’s submissions – to the north of Bell Vale Lane. It is apparent from a review of historical aerial imagery that this is a recently created pond, constructed between 2018 and 2020. Given that it is effectively isolated from any other pond by the River Wey and the A286, it is highly unlikely to have been colonised by GCN.
- 2.78 In relation to the general probability of GCN presence in the vicinity of the Appeal Site, I note that the Surrey Amphibian and Reptile Group, when consulted by Engain, rated the probability of GCN presence at the Appeal Site as “*unlikely presence – 0.0%*” (CD2.48). In a similar vein, the ‘Biodiversity Audit of Haslemere’s Ecological Network’ (CD7.54) - produced by Giles Sutton and Gareth Matthes, both listed as contributors to the R6 PoE - observes in its characterisation of local biodiversity that: “*many species have disappeared such as the water vole - which was once common on the River Wey - and the great crested newt - which has not been recorded in the NP area for many years.*”
- 2.79 SWT is of course in agreement with the conclusions of the submitted assessment in respect of GCN, and further agrees with Engain that any residual risk of harm during construction is “*small and can be managed through a Construction Ecological Management Plan*” (CD12.3, CD3.25)

The entire site is within the Dark Skies area not just the Wildlife Corridors

- 2.80 In section 8, the R6P asserts that a proposed network of ‘dark corridors’ identified in Figure 11 of Mr Davies’s PoE to the first Inquiry is “*inadequate since the entire development site should adhere to the requirements of policy H10*” (Dark Skies).
- 2.81 This is simply a false dilemma. It does not follow from Mr Davies’s assertion that particular parts of the Appeal Site will be capable of functioning as dark corridors for wildlife that the broader external lighting strategy will diverge from applicable policy and design requirements. Draft condition 25 requires the submission and approval of a suitably sensitive scheme of external lighting in the interests of both protected species and the wider landscape character.

Non-native, invasive species planting

- 2.82 As I have stated above, the Appellant has committed to arranging the removal of species that are undesirable from a biodiversity perspective.

Out of date Statement of Position from Surrey Wildlife Trust and Ecology Surveys

- 2.83 In section 10, the R6P asserts that both the latest position statement from SWT and the “survey evidence” that informs the assessment of the Appeal Proposal are ‘out of date’. I have addressed the latter issue above.
- 2.84 SWT’s final consultation response of January 2024 serves as the conclusion to the extensive consultation process related in my main PoE and provides confirmation that there are no outstanding ecology-related pre-determination requirements upon the Appellant. In other words, no additional information is required to satisfy SWT, and by extension WBC, that the Appeal Proposal is capable of complying with all applicable nature conservation-related legislation and policy. This provides the basis for the position agreed between WBC and the Appellant in the SoCG that the Appeal Proposal is acceptable and beneficial in ecological terms.

3. CONCLUSION

- 3.1 The R6P conclusion, presented as Section 11 of its PoE, conflates and confounds various unrelated statutory and policy requirements. The introductory sentence asserts that the Appeal Proposal “*may not pass the three tests of The Habitat Regulations*” on the basis of the “*below evidence*” – which in this instance comprises a series of unrelated assertions regarding the NPPF and HNP.
- 3.2 In relation to HNP Policy H12 and NPPF 187a and 187d, the R6P conclusion asserts that the Appeal Proposal fails to “*demonstrate that it [...] minimises impacts on and provides net gains for biodiversity and protects and enhances sites of biodiversity both on and adjacent to the development site*”. The R6P further asserts that “*it is not possible to ascertain*” the capability of the Appeal Proposal to comply with NPPF 193a and 193c. The latter paragraph relates to the loss of ‘irreplaceable’ habitats such as ancient woodland (of which none is present within the vicinity of the Appeal Site) and veteran trees – in respect of its unilateral opinion on which, no evidence is presented by the R6P.
- 3.3 As I have set out above and in my main PoE, the conclusion of the extensive process of assessment and consultation to which the Appeal Proposal has been subject is that important ecological features within the project’s zone of influence will not be subject to significant residual negative effects, and the Appeal Proposal will be capable of proceeding in accordance with relevant nature conservation related legislation and policy. On this basis, it is an agreed matter between the Appellant and WBC that the Appeal Proposal is acceptable and beneficial in respect of biodiversity.
- 3.4 As discussed throughout this RPoE, the evidence and arguments submitted to the Inquiry by the R6P do not cause me to change my view regarding the acceptability of the Appeal Proposal in light of the relevant legislative and policy tests that I have summarised within my main PoE: they do not represent valid grounds for dismissing this Appeal, indicate that any additional harms should be weighed, or alter the weight that should be given to its benefits.

Annex 1

Excerpt from Forestry Commission Practice Guide for the
Management of Semi-Natural Woodlands

The Management of Semi-natural Woodlands

3. Lowland Mixed Broadleaved Woods

PRACTICE GUIDE



Forestry Commission

better to leave the material spread around. On the other hand thick lop and top can be difficult to plant through and heaping it can protect coppice stumps from deer.

Decisions on treatment of lop and top should take account of the relevant factors locally.

Weeding

Ground vegetation consists of native plants and provides a substrate for woodland fauna, so weeding should be kept to the minimum necessary. Vigorous growths of bramble, bracken or coarse grasses, which will inhibit regeneration and growth, can be avoided or reduced if regeneration is carried out under a shelterwood, or by adopting continuous cover systems. Nevertheless weeding is normally required for the first 3–4 years in order to ensure that transplants are not smothered. Herbicides should be spot applications limited to one metre diameter around the planted trees. Where grasses are not dominant hand-cutting is preferable for wildlife conservation reasons, especially if it can be delayed until late June. Exceptionally dense stands of bracken or bramble may be treated with herbicides.

Tending and thinning

Where timber production is an aim, cleaning and respacing operations are likely to be needed later on where there is an abundance of natural regeneration or coppice regrowth. These should aim to release the better stems of the most productive and valuable species, whilst still maintaining the semi-natural component. The respacing should aim to relegate non-timber species to the understorey, rather than totally remove them from the crop. As for thinnings, the selection should ensure that the more unusual species are favoured.

Coppice does not usually require thinning but decisions must be taken when cutting about which poles to retain as standards. Oak is preferred, both for timber value and as habitat. Ideally, a few individuals of other species should also be retained as standards. A high density of standards weakens the growth of

coppice. Their density should usually remain below 30% canopy. An uneven distribution of standards reduces the impact on the coppice, so some grouping allows a slightly higher density. If the coppice is over 20 years it may be safer to open up around potential standards a few years ahead of felling.

In high forest, heavier crown thinnings with an interval of 10 years would be preferable. This will increase the light reaching ground level and help to develop a multi-layered canopy structure. Stems of better timber quality and potential should generally be favoured, but small amounts of minor species (such as birch and aspen) should be kept to maintain diversity.

Exotic species

Several non-native tree species have colonised or have been planted into mixed broadleaved woodland, including beech (which is native in other forest types), several conifers and well-established denizens such as sycamore, chestnut and Norway maple. Chestnut and beech may be retained as part of the mixture on the ground they occupy, i.e. their spread should not be extended by planting. Others should be eradicated if they occupy less than 10% of the wood. If they are more widely and abundantly established, they should be controlled during thinning as minority constituents of the mixture. Mature sycamore stands often contain much ash advance regeneration, which should be retained for restocking. Non-native tree species should not be planted in ancient semi-natural woods where they are not already present.

Nutrition

Fertilising mixed broadleaves woods brings little or no benefit to tree growth and merely increases weed competition, whilst suppressing the diversity of woodland ground flora.

Grazing and browsing

Low intensity grazing and browsing is a natural feature of woodlands which helps to maintain diversity in composition and

Annex 2

Excerpt from Forestry Commission Research Note on 'The Management and Creation of Woodland for Biodiversity and Wider Environmental Benefits'



Research Note

The management and creation of woodland for biodiversity and wider environmental benefits

Joe Beesley, Helen Slater, Nadia Barsoum, Alice Broome, and Kevin Watts

January 2025

Woodland creation and management deliver a wide range of environmental benefits. The extent of those benefits is determined by a range of factors, including the type of woodland, the way it is managed, and its position in the landscape. Here we draw on the evidence base to summarise the importance of these factors in the delivery of biodiversity value and environmental benefits. We begin by discussing how existing woodlands can be managed to improve their condition, such as by increasing their structural complexity and species diversity, and by reducing external pressures, such as herbivore grazing and invasive species. Next, we review the evidence for the creation of new woodland, either as spatially discrete woodlands or through the expansion of existing woodlands. We conclude by discussing the potential synergies and trade-offs between different environmental benefits, and their interaction with social and economic outputs.

Box 2 Woodland resilience and adaptation

In the context of woodland ecosystems, 'resilience' and 'adaptation' are interlinked but distinct terms which describe how a woodland may react to external pressures and a changing climate.

'Resilience' describes the capability of a woodland to withstand or recover from an external pressure or shock while maintaining the core species and features that allow it to host biodiversity and deliver ecosystem services (Bellamy *et al.*, 2018). Common pressures include pests, diseases, invasive species, and environmental events such as droughts and storms which bring high winds and heavy rainfall. Many of these threats are becoming more frequent and severe due to climate change.

'Adaptation', on the other hand, is the capacity of the woodland to alter in response to changing environmental conditions such that it can continue to host biodiversity and provision ecosystem services into the future. Adaptive potential can be introduced to a woodland through changes at different levels, such as in species composition by planting non- or near-natives, or in the genetics of the tree species by sourcing seed from southerly provenances (i.e. assisted migration) or including individuals selected for desirable traits (such as higher drought tolerance).

Other environmental benefits

Woodlands with higher structural complexity have been shown to accumulate more above-ground carbon^{1K} than less structurally complex forests due to complementary resource use by trees of different sizes (Ali, 2019). Retaining natural deadwood and brash from forestry operations increases the amount of carbon stored in forest soils (James *et al.*, 2021). Fallen deadwood also adds roughness to the woodland floor which contributes to flood mitigation and better water quality by increasing water infiltration and absorption^{1J}, slowing water run-off, and reducing soil loss (Nisbet *et al.*, 2011).

Increasing tree and shrub species diversity

Closely associated with structural complexity is the variety and spatial distribution of tree and shrub species in the canopy and understorey^{1B}. The functional traits of each tree and shrub species (e.g. the level of shade cast, the water-holding capacity of its bark, and the nutritional value of its leaf litter) affect the community of associated species and the delivery of ecosystem services (Mitchell *et al.*, 2021).

There is a current focus on increasing the proportion and diversity of broadleaved species to support native ecological

communities. This approach is beneficial for various woodland types and frequently takes precedence in restoration efforts of non-native woodlands, such as Plantations on Ancient Woodland Sites (PAWS) (Box 3).

Benefits for wildlife

A high diversity of tree species is well understood to be a key driver of woodland-associated biodiversity, but notably when species with different functional traits are combined, rather than when there is simply a higher number of tree species (Ampoorter *et al.*, 2020).

In many mixed and coniferous woodlands, increasing the proportion of broadleaves is likely to have positive biodiversity outcomes for many different taxa, particularly where native tree species such as oak are incorporated (Broome, Stokes, *et al.*, 2021; Zeller *et al.*, 2023). However, an increased number of broadleaved tree species may not be appropriate in certain situations, such as in native pinewoods or red squirrel strongholds (Forestry Commission, 2012).

Other environmental benefits

Many woodlands of multiple species have been shown to sequester more above-ground carbon than monocultures due to complementarity between species and overyielding (Williams *et al.*, 2017; Warner *et al.*, 2023). Mixed stands can have greater resilience to external pressures and disturbances such as specialist insect pests, fungal pathogens, and weather events predicted to intensify under climate change, including drought and storms (Jactel *et al.*, 2017; Messier *et al.*, 2022). The strength of these effects, however, can depend on both the tree species in the mixture and wider site factors.

The effect on ecosystem service delivery of increasing the proportion of broadleaves in mixed woodlands is likely to be highly context dependent. Certain broadleaved species are better adapted to riparian and floodplain contexts, where they can capture sediment and slow flows while providing additional ecological benefits (Nisbet *et al.*, 2011; Burton *et al.*, 2018). On upland catchment slopes, coniferous species may intercept more rainfall and promote higher infiltration than most broadleaved species, thereby slowing surface run-off (Cooper *et al.*, 2021).

Surface water acidification has negative ecological and environmental consequences. The effect of tree type on water acidification is complex and may be less important than woodland location and maturity (Nisbet and Evans, 2014). In the acid-sensitive uplands, conifers are generally more acidifying than broadleaves as they are more effective at

Box 3 Woodland restoration

Many UK woodlands are in unfavourable ecological condition and require restoration to support biodiversity recovery and establish a resilient ecological network. Restoration approaches primarily focus on increasing native tree cover, safeguarding remnant ecological features, and addressing external pressures. Non-native woodlands, including Plantations on Ancient Woodland Sites (PAWS), are often targeted for these actions. PAWS are areas of ancient semi-natural woodland that have been cleared and replanted with non-native trees. These sites span a continuum ranging from monocultures of non-native conifers to a mix of native and non-native species. They can negatively impact wildlife reliant on native trees (e.g. pied flycatcher and purple emperor butterfly), and can harm native flora through competition from non-native species. The evidence base for restoration is still emerging and environmental benefits will vary depending on site-specific factors and the approach adopted. Removing non-native conifers and reinstating native broadleaves can allow the re-establishment of native ground flora (Kirby, Goldberg, and Orchard, 2017) and create more available niches for wildlife (Quine *et al.*, 2007). A gradual removal strategy has been shown to avoid unintended negative impacts on shade-adapted specialists (Brown, Curtis, and Adams, 2015; Broome, Inchboard, *et al.*, 2021) or species that utilise conifer habitats (Trout *et al.*, 2012).

scavenging atmospheric acid pollutants (Nisbet *et al.*, 2011). On the other hand, alder, a native broadleaved species, can cause local acidification in poorly buffered soils due to nitrate leaching following nitrogen fixation by root nodules (Nisbet and Evans, 2014).

The effect of tree type on carbon sequestration and greenhouse gas mitigation is also highly nuanced and dependent on species, site, management, and the substitution impacts of any harvested wood products (Körner, 2017). Over short timeframes (e.g. up to 50 years), fast-growing productive conifers generally sequester and substitute the greatest amount of carbon (Forster *et al.*, 2021; Matthews *et al.*, 2022). However, after longer periods of time, the carbon sequestration between different woodland types becomes more equal as long-lived broadleaved species accumulate large above- and below-ground carbon stocks (Mayer *et al.*, 2020; Matthews *et al.*, 2022).

Reducing pressures

There is a strong evidence base supporting our understanding of the causes and impacts of woodland degradation by biotic and abiotic pressures. For example, the National Forest Inventory Woodland Ecological Condition demonstrates that pressures such as pests and diseases^{2A}, invasive non-

native plants^{2B}, and damage by wild and domestic animals^{2C} are major factors contributing to unfavourable woodland ecological condition in Great Britain (National Forest Inventory, 2020).

Here we summarise the evidence for local-scale management interventions to reduce pressures in woodlands. Some pressures, such as pollution damage, require broader management or policy actions beyond the woodland area and are not covered here. Evidence for the effectiveness of specific measures is still emerging as there is often a delay between action and biodiversity response (Watts *et al.*, 2020). Removing or reducing negative impacts will likely benefit woodland biodiversity and support the recovery of many threatened or priority species, particularly woodland specialists (Alder, Fuller, and Marsden, 2018).

Benefits for wildlife

The negative impacts of over-browsing by herbivores, such as deer, on understory vegetation are well documented (Kirby, 2001; Ramirez, Jansen, and Poorter, 2018), and these changes have been reported to adversely affect woodland birds (Fuller *et al.*, 2007), small mammals (Flowerdew and Ellwood, 2001), and invertebrates (Stewart, 2001). One study found that enclosure of deer from coppiced woodlands resulted in higher density and cover of understory vegetation, as well as a higher abundance of songbirds^{2D}, after three years of coppice growth (Gill and Fuller, 2007).

Similarly, invasive plants (e.g. rhododendron) alter the structure and composition of woodlands, which will in turn alter the availability and distribution of resources, influence animal behaviour, and affect animal-plant interactions (Manchester and Bullock, 2000; Vilà *et al.*, 2011; Stewart *et al.*, 2021). Tree diseases, such as ash dieback, can cause rapid mortality in the affected species with potentially severe negative impacts on populations of associated species and the provision of ecosystem services (Mitchell *et al.*, 2014).

Climate change will present substantial challenges to woodlands due to shifts in temperature, altered rainfall patterns, and extreme weather events (Ray, Morison, and Broadmeadow, 2010; Patacca *et al.*, 2023). Rising average temperatures may also increase the spread of pathogens and diseases (Frederickson-Matika and Riddell, 2021; Inward, 2023). Addressing other external pressures and maintaining functionally varied tree stands within well-connected woodlands can improve woodland resilience and facilitate species adaptation to climate change (Ray, Morison, and Broadmeadow, 2010). However, empirical evidence supporting effective wildlife adaptation measures in woodlands remains limited.

Annex 3

Excerpt from Countryside Stewardship (Higher Tier) Manual Annex
5: Woodland improvement

Annex 5: Woodland improvement

Multi-year option (WD2) and capital items including
Woodland Infrastructure (FY2)

Countryside Stewardship

Protecting the natural
environment for future
generations



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Annex 5: Woodland improvement multi-year option (WD2) and capital items including Woodland Infrastructure (FY2)

Purpose

This annex provides information to support Higher Tier applications for woodland improvement using multi-year options and/or capital items.

Contents

- a. Requirements for a Woodland Management Plan
- b. Area and value eligibility thresholds
- c. Application timeline for Higher Tier woodland applications
- d. Woodland improvement multi-year option (WD2), woodland infrastructure (FY2) and capital items
- e. Works required under WD2 (Objectives and Prescriptions)
- f. Maps (Agreement maps and annotated maps)
- g. Scoring
- h. Woodland creation maintenance option (WD1)

a) Requirements for a Woodland Management Plan

If you want to apply for a Countryside Stewardship Higher Tier agreement on woodland, you must have a Forestry Commission approved Woodland Management Plan (WMP). Your WMP must be approved or approved in principle before you submit your Higher Tier initial application on or before 3 May. Your approved WMP must cover the 5 year period of the Higher Tier agreement. If your WMP is approved in principle when you make your initial application, the WMP must be fully approved with any associated felling licence in place by the final application deadline on 30 September.

Your WMP must support and validate your Higher Tier application. It must support the prescription choices you have applied for under the WD2 option and/or explain why you need the capital items you have included in your application.

There are 2 Forestry Commission WMP templates for you to choose from:

- ‘Full’ Woodland Management Plan – for woodland that is equal to 10 hectares or more
- ‘Small’ Woodland Management Plan – for woodland areas that are less than 10 hectares

You can read more information about WMPs including information about funding and download the templates from [Create a woodland management plan](#) on GOV.UK.

You can use other templates to meet the requirement for a Forestry Commission approved UKFS compliant WMP, for example, a WMP produced to gain access to the UK Woodland Assurance Scheme (UKWAS).

If you use a template other than the Forestry Commission templates, we cannot provide grant aid for your WMP through the [Countryside Stewardship Woodland Management Plan grant](#).



Monitor change

Prescription 4006	Evidence needed
Provide monitoring reports in years 3 and 5 to confirm progress (for example providing before and after photographs, a record of the number of deer culled, and the results of squirrel monitoring).	Retention of reports in years 3 and 5 to include photographic evidence. We may ask to see this evidence.

The following will also apply to woodland improvement activity unless they are not relevant to the woodland. This will be agreed with your Forestry Commission Woodland Officer:

Thin or selectively fell trees

Prescription 2011	Evidence needed
Thin or selectively fell [X] hectares of trees.	Retention of reports in years 3 and 5 to include before and after photographic evidence. We may ask to see this evidence.

Regeneration felling

Prescription 2013	Evidence needed
Undertake regeneration felling to encourage crown development and/or natural regeneration.	On site visual checks to show compliance with management plan proposals.

Regeneration planting

Prescription 2003	Evidence needed
If, in spaces exceeding 0.25ha, 2 years after the removal of conifers, natural regeneration of native species has not begun, or conditions to support natural regeneration of native species are not in place, replant with [species] at 1100 trees per hectare (note: there is a regulatory requirement that felled areas are restocked.)	On site visual checks to show compliance with management plan proposals.

Silvicultural transformation

Prescription 2004	Evidence needed
Implement silvicultural transformation as informed by the Woodland Management Plan.	On site visual checks of conversion activity and associated record keeping to show compliance with management plan proposals.

Reduce conifers

Prescription 2018	Evidence needed
By year 5 reduce the percentage of coniferous species from [x%] to [y%].	On site visual check that percentage reduction has been achieved through sampling.



Manage successional scrub

Prescription 2007	Evidence needed
Manage successional scrub through cyclical cutting.	Retention of reports in years 3 and 5 to include before and after photographic evidence. We may ask to see this evidence. On site visual check that management has been undertaken

Coppicing

Prescription 2009	Evidence needed
Re-coppice [x] ha of [y] species.	Retention of reports in years 3 and 5 to include before and after photographic evidence. We may ask to see this evidence. On site visual check that re-coppicing has taken place

Squirrel monitoring

Prescription 2016	Evidence needed
Within red squirrel strongholds monitor red and grey squirrel presence through current best practice, for example, hair tubes.	Retention of monitoring reports in years 3 and 5 as we may ask to see them.

Veteran trees

Prescription 2010	Evidence needed
Release [x] existing and/or recruitment veteran trees from competing tree growth.	Retention of reports in years 3 and 5 to include before and after photographic evidence. We may ask to see this evidence. On site visual check to show compliance with management plan proposals.

Deer control

Prescription 2015	Evidence needed
Where deer control has been identified as required in the woodland management plan, by the end of year 1 of the agreement have in place a deer management plan. Manage deer populations to allow the establishment of appropriate ground flora and understory, preferably by means of lethal control but if this is not effective through fencing deer out of the woodland. Monitor such management and provide reports including, for example, deer cull numbers and photographic evidence from deer exclusion plots in years 3 and 5.	Deer management plan in place at the end of the first year of the agreement. Monitoring reports to be retained at year 3 and 5 including, for example, deer cull numbers and photographic evidence of deer exclusion plots. We may ask to see this evidence.



Remove non-native/ invasive species

Prescription 2014	Evidence needed
Vegetation management - remove [x] ha of competing and/or non-native or invasive vegetation of [y] species by appropriate mechanical or chemical control.	Retention of reports in years 3 and 5 to include before and after photographic evidence. We may ask to see this evidence. On site visual check to show compliance with management plan proposals.

Permanent open space

Prescription 2000	Evidence needed
Create and/or manage [x] ha of permanent open space.	Retention of reports in years 3 and 5 to include before and after photographic evidence. We may ask to see this evidence. On site visual check to show compliance with management plan proposals.

Access Tracks

Prescription 2001	Evidence needed
Create and/or manage [x] metres of access rides.	On site visual check to show compliance with management plan proposals.

Ride management

Prescription 2006	Evidence needed
Manage [x] metres of ride edges through an [x] zone cutting regime.	Retention of reports in years 3 and 5 to include before and after photographic evidence. We may ask to see this evidence. On site visual check to show compliance with management plan proposals.

Deadwood

Prescription 2002	Evidence needed
Create and/or maintain appropriate levels of deadwood habitat in line with UKFS.	Retention of reports in years 3 and 5 to include before and after photographic evidence. We may ask to see this evidence. On site visual check to show compliance with management plan proposals.



Annex 4

Excerpt from 'Managing Small Woodlands for Dormice: A Guide for Owners and Managers'



MANAGING SMALL WOODLANDS FOR DORMICE

a guide for owners and managers

Woodlands have always been a very valuable resource. In the past they provided fuel, timber and materials for hedging. They were actively worked: timber trees were felled and new saplings planted and allowed to develop, coppice was cut on either a long or short term cycle and hedges were laid and managed. This gave rise to a mosaic of different types and sizes of woodlands within the countryside that were connected by a network of hedges.

Woodlands in the 21st century remain important for timber production, for their amenity value and as a habitat for wildlife. Unfortunately, inappropriate, or lack of, management has meant that many of our woods are losing their botanical diversity and their associated fauna. Furthermore, changes in farmland practices have meant that many of our hedgerows are no longer appropriately managed, which has led to them becoming degraded or disappearing altogether in many areas. Consequently, many of our woodlands have become increasingly isolated within the landscape.

In Victorian times dormice were widespread throughout England and Wales and even today there are isolated populations as far north as the Lake District and Northumberland. However, due to habitat fragmentation they have become locally extinct in most of the midland and northern counties and are now generally restricted to parts of Wales and southern England, where they are still considered to be in decline.

Dormice are easy to recognise with their sandy coats, furry tails and large black eyes, but they are hard to find as they are small, nocturnal and arboreal when active and hibernate over winter. They live at low population densities even in their ideal habitat which is considered to be semi-natural ancient woodlands with a high plant diversity and a dense understorey. They also inhabit scrub, hedgerows and mixed conifer plantations.

This leaflet is aimed at owners of woodlands up to about 10 hectares who might not have had any experience of woodland management and who are not working with professional woodland managers, ecologists or foresters. It is specifically intended to promote management practices that will either maintain or enhance the habitat for our native hazel dormouse and to give guidance relating to the European Habitats Directive.



Manage non-native plants

Non-native, invasive plants are considered to be one of the greatest threats to biodiversity. In woodlands, rhododendron (which is of very little value to wildlife) may become invasive, shading out other shrubs and ground flora and restricting their regeneration. For more advice see *The Scrub Management Handbook* by Natural England.

Manage sycamore

Sycamore can be beneficial for dormice in your woodland at low densities as it produces flowers and supports a high number of insects that dormice feed on. However, sycamore produces copious seed which, if left unmanaged, will produce stands of trees that quickly shade out the understorey. They can be managed by coppicing which will maintain the supply of insects without allowing them to seed. Excess saplings should be removed.

Create log piles

Although small cut timber can be used for firewood, leave some cut timber in the wood to rot down individually or use logs to create habitat piles. If possible bury the lower layers and build a compact stack away from coppice stools. Log piles offer sheltered places for dormice to hibernate over winter. The crevices will also provide habitat for other small mammals, reptiles and amphibians and the rotting timber itself provides a home for a variety of invertebrates.

Retain veteran trees and standing dead wood

Standing dead wood is very important for invertebrates, birds, bats and dormice. Retain some dead or damaged trees (as long as they are not unsafe) especially those with cracks and holes, in which dormice may nest and bats roost.

Plantations on ancient woodland sites (PAWS)

In the past, many ancient woodland sites have been planted with conifers. In spite of this change, many have retained dormice, especially where hazel is still present. The problem for dormice however, is that ageing conifer plantations cast dense shade and will prevent understorey and scrub regeneration thus reducing the food and nest sites available. Conifers should be removed over time, either in small blocks or to open rides. Ensure that arboreal connectivity is retained around the felled areas. Deciduous species should be retained and if possible felled areas enhanced by planting species of local provenance to create uneven ages of trees. For information on restoration of PAWS woodland, see *Restoration of Native Woodland on Ancient Woodland Sites* by the Forestry Commission.

Create linked coppice blocks

Coppice is generally cut between November and March, either with a chainsaw, bow saw or billhook. It is better to cut several smaller plots up to ¼ha (but not more than 10% of the total area each year) in your wood rather than just cut one

large block, so the cutting cycle should be carefully planned. Over time this will give a mosaic of mixed aged coppice in the wood. Ensure that coppice coupes remain linked either with intermediate blocks or along an edge so that no areas become isolated due to coppicing. Cut coppice stools will need protection from deer and rabbits to restrict grazing on new growth.

Derelict coppice

If hazel coppice has not been cut for at least 30 years (stem dia. >150mm), cutting may not produce much regeneration and gaps may need to be replanted. Restoring coppice will help many birds, butterflies and other invertebrates, and plants. Please be aware that cavities in derelict coppice may contain dormice. Aim to cut a small coupe ie up to ¼ha in non-adjacent blocks per year. To restore derelict coppice it is normally necessary to cut all the coppice again after three years to allow the new plants to produce more stems and grow up strongly. For more detailed advice see *Restoration of Neglected Coppice* by the Forestry Commission.

Create a variable age structure

To ensure the longevity of your coppiced woodland, ensure that some new coppice stools are initiated by layering from existing stools and some new standard trees are selected and allowed to develop. This will give a better age structure to your wood and ensure that there is timber provision for the future. For hazel coppice, a rotation of 15-20 years is recommended. The traditional seven to eight year cycle which will produce saleable rods, may not allow hazel enough time to mature and produce nuts for dormice.

Make use of brash

Brash is the thinner, whippy material left when the useful products of the coppice have been removed. It is useful left in the wood providing nesting habitat for woodland birds; it can also be used for dead hedging around newly cut stools or around cut coupes to reduce browsing of coppice regrowth (although other protection such as fencing may also be required). Sometimes brash is burnt. Have as few fires as possible and keep them away from coppice stools and standards.

Manage standard trees

A standard tree is one with a single trunk that is not cut in the coppice cycle. The foliage of these trees forms the upper canopy cover in a woodland. Mature standard tree density should be around 10-15 per hectare with another 10-15 younger standards allowed to develop. This will allow light to get through to the shrub layer. Some of these shrubs should provide access for dormice into the tree canopy where possible. If standards require thinning this work should be undertaken in the same season just after the coppice is cut, to minimise damage to the stools.

Further information about all aspects of woodland management can be obtained from the organisations on the contacts list at the end of this leaflet.



Annex 5

Excerpts from Dormouse Conservation Handbook and Lockwood *et al.* (2025)



ENGLISH
NATURE

The dormouse conservation handbook

second edition



working towards *Natural England*
for people, places and nature

1 Introduction: dormice and issues they raise

1.1 General introduction

Dormice form a distinctive family of rodents (the Gliridae), which are found widely across Europe and Africa, with one species in Japan. They are not common anywhere, and by international agreement they are protected throughout Europe (the Japanese species has even been designated a protected 'National Icon'). Two species occur in Britain, the edible dormouse *Glis glis*, a squirrel-sized, non-native species that has become a minor pest since its introduction in 1902, and the hazel dormouse *Muscardinus avellanarius* – the subject of this manual.

The hazel dormouse is a distinctive native British mammal that is infrequently seen owing to its rarity and nocturnal habits. It is rarely caught in traps or by predators such as cats and owls, so it is easily overlooked even where present. Moreover, it spends most of its active time high off the ground and passes at least a third of the year in profound hibernation, again making it unlikely to be seen by the casual observer. Nevertheless, the dormouse is widely known from its appealing photographs and its occurrence in children's story books (notably *Alice's Adventures in Wonderland*). Formerly it was also found by woodland workers during coppicing and hedge laying operations, who would often take these attractive animals home to show to their children. The dormouse is therefore a familiar species, despite being rarely encountered in the wild. Like the dolphin, it has the advantage of being an attractive animal with no 'negative' aspects to its lifestyle.

Over the last 100 years, the hazel dormouse has declined in both numbers and distribution. Recent surveys suggest that it has become extinct in about half its former distributional range, including six counties where it was reported to be present by Rope (1885). There are now fewer than ten known sites north of a line between the Wirral and the Wash (including recent reintroductions), and dormice are

entirely absent from Scotland. The most northerly location is near Hexham in Northumberland, with at least three more sites in Cumbria. Dormice are now either absent or very thinly distributed in most midland and many southern counties. In Wales dormice have been found in a few widely separated areas in every county except Anglesey (Jermyn, Messenger & Birks 2001). Although it is still uncommon, the dormouse appears to be relatively widespread in southern English counties but, because of its specialised habitat requirements, it is never as numerous as woodland rodents such as the wood mouse *Apodemus sylvaticus* and bank vole *Clethrionomys glareolus*. Even in counties where it is widespread, the dormouse has a very patchy distribution. It is particularly associated with deciduous woodland, but also occurs widely in species-rich hedgerows and scrub and sometimes in other woody habitats. The total adult population is now thought to number about 45,000 (Battersby 2005), distributed among a variety of widely fragmented sites.

Hazel dormice are sensitive to weather and climate, both directly and indirectly, through their specialised feeding requirements. They are particularly affected by habitat deterioration and fragmentation and also by inappropriate habitat

management. For these reasons, they are highly vulnerable to local extinction. They are consequently good bioindicators of animal and plant diversity: where dormice are present, so are many other less sensitive species. The successful maintenance of viable dormouse populations is a significant indicator of an integrated and well-managed countryside. Their continued presence is therefore highly desirable.

Dormice have full legal protection, and their presence must be taken into account when habitat changes are likely as a result of development or changes in woodland management.

This publication is intended to be a practical guide for specialists. Its purpose is:

- 1 To provide guidance for woodland managers and others wishing to promote dormouse conservation by active management of suitable sites and habitats.
- 2 To provide guidance for developers, foresters and other land managers, whose activities may impinge on dormouse habitats.
- 3 To provide a range of specialised references and contact points for those who wish to know more.

RESEARCH ARTICLE OPEN ACCESS

What the Cat Dragged in: Quantifying Prey Return Rates of Pet Cats (*Felis catus*) With Outdoor Access in the UK

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Correspondence: M. Huck (m.huck@derby.ac.uk)**Received:** 27 May 2024 | **Revised:** 12 February 2025 | **Accepted:** 18 February 2025**Funding:** The authors received no specific funding for this work.**Keywords:** conservation | detectability | domestic | free-roaming cats | Great Britain | palatability | predation | wildlife

ABSTRACT

Non-native predators can cause great harm to natural ecosystems through competition for resources and by directly preying on native species. Domestic cats (*Felis catus*) prey on wild prey throughout the world and have been implicated in a number of species declines. However, in the UK, long-term, widespread research is lacking. Here, the study aimed (i) to quantify prey returned home across the country and (ii) to investigate factors which may influence these return rates. A predation survey was conducted on 553 cats across the UK for up to 43 months (2018–2021), recording all prey returned home and subsequently detected by the cats' owners. All owners of cats with outdoor access were encouraged to participate, the only exclusion criterion being indoor-only. Data were gathered upon registration regarding the age, sex, and body condition of participating cats, allowing for the analysis of the potential influence of such factors. It was estimated here that the current UK population of pet cats (10.8 million total) return a total of between 37.25 million and 140.4 million prey per year, the majority being mammals (83% of detected prey). Sex, age, and body condition of cats, along with the presence of a cat flap, whether a bell was worn, level of urbanisation, and the season of data collection all had a statistically important effect on prey return rates. While most cats returned 0–1 prey per month, a small minority ($n = 3$ cats) returned over 15 individuals monthly. It is important that true predation rates (in addition to the return rates found here) are further explored and quantified, along with the actual impact that this has or does not have on prey populations. Future efforts to limit the impact of cat predation should focus in particular on identifying super predators with a view to limiting their predation.

1 | Introduction

Domestic cats, both feral and owned, can have a detrimental effect on native wildlife populations around the world. This can be a result of disease transmission (Gerhold and Jessup 2013) and 'fear effects' (Beckerman et al. 2007; Bonnington et al. 2013) due to their presence, but prey populations can also be directly affected by cats' predatory habits (Doherty et al. 2016).

Cats are formidable hunters of rodents in particular, as these species commonly live in burrows, and a cat can lie in wait in a 'watch' posture for a long time (Turner and

Bateson 2000). Upon the prey's emergence, the cat is able to propel itself towards its prey horizontally, close to the ground (Leyhausen 1979). Hunting birds is also possible when they are on the ground (and occasionally perched higher up), and cats can have a particular impact on ground-nesting birds in certain locations where such species are prevalent (Opper et al. 2014). Birds are more likely than mammals to avoid capture since they are able to escape vertically where cats cannot follow (Leyhausen 1979). In the majority of dietary studies on cats, mammals are the most frequently recorded taxon worldwide (constituting a mean of 64.4% of prey in return surveys and 70.8% in scat and stomach analyses, see Lockwood 2024

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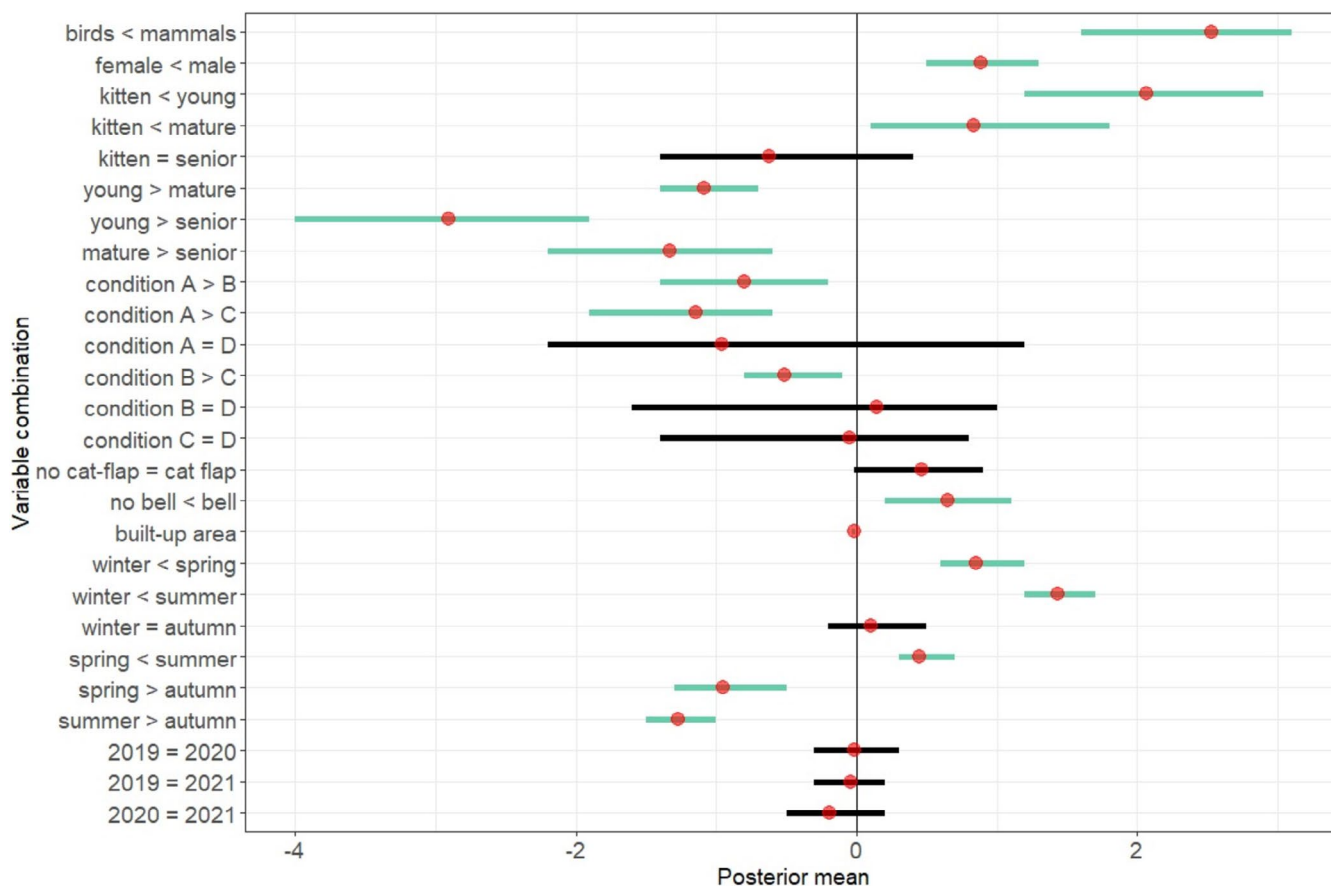


FIGURE 2 | The posterior mean (red points) and credible intervals (horizontal lines) for each variable combination. Where credible intervals cross zero, there is no 'statistically important' effect (black lines). Green lines indicate important results, and the direction of the effect is shown on the y axis (<, >, =).

3.5 | Conservation Concern

Of the 7013 prey returned during the study period, 15 (0.21% of total prey returned) were reported to be European Protected Species: nine bats and six hazel dormice (*Muscardinus avellanarius*). However, it should be noted that only one hazel dormouse was confirmed with a photograph, and wood mice (*Apodemus sylvaticus*) were misidentified as hazel dormice on three occasions. Mammalian species listed as endangered in the UK (by Mathews and Harrower 2020) were not recorded (such as the water vole, *Arvicola amphibius*, and grey long-eared bat, *Plecotus austriacus*). Of the 70 bird species on the UK's red list (Stanbury et al. 2021), five were reported here, totalling 241 individuals (3.44% of total prey returned), with house sparrows (*Passer domesticus*) being the most frequently recorded (207 individuals).

However, all of the five prey-sized mammalian groups commonly perceived as problematic 'pests' (mice, brown rats *Rattus norvegicus*, grey squirrels *Sciurus carolinensis*, rabbits *Oryctolagus cuniculus*, and moles *Talpa europaea*, Baker et al. 2020) were recorded here. These groups totalled 3107 individuals (44.4% of total prey returned), potentially more if 'small mammals' were assumed to be mice (additional 897 individuals) and if bank and field voles were considered along with mice to be pests (additional 1434 individuals). Three non-native species were recorded in the present survey, all of which are recognised

as pest species (brown rats, grey squirrels, and European rabbits, Baker et al. 2020). These three species constituted 6.5% of total prey returns ($n = 457$ prey).

4 | Discussion

Here, it was estimated that cats return a mean of 1.5 prey per cat per month, or 18 prey per cat per year. This figure is substantially higher than estimates from recent UK research (5.2 prey per cat per year, Pirie et al. 2022). This difference in estimates may be due to the relatively small geographic range of the study, which was also restricted to urban and suburban environments, and the lower sample monitored by Pirie et al. (2022, $n = 79$). However, the finding of the current study is comparable to that of Woods et al. (2003), estimating that cats in the UK returned 2.04 prey per month (here, it is estimated at 1.5). Since Woods et al. (2003) only monitored prey returns in the spring and summer (5 months), these return rates would likely have been an over-representation of annual rates. The median produced here (5 prey per cat, annually) is similar to the mean of Pirie et al. (2022), although the median is not routinely given in previous research and is therefore not directly comparable.

A large percentage (44.4%) of prey recorded here is commonly classified as mammalian pests (Baker et al. 2020) and only a very small number (0.21%) were European Protected Species

Annex 6

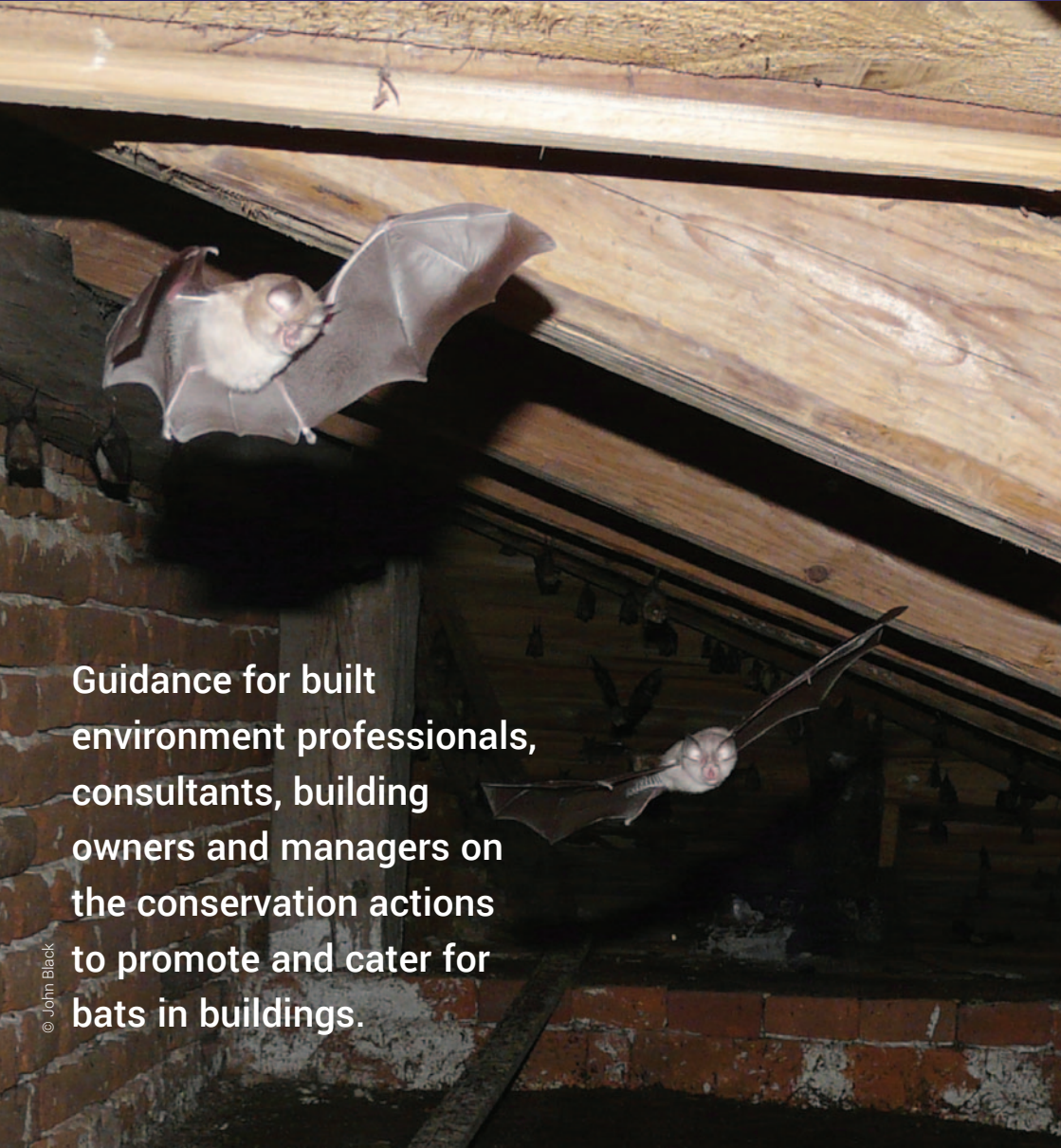
Excerpts from 'Bats and Buildings' Advice Note



Bats and Buildings

Bats and the Built Environment Project

Guidance for built environment professionals, consultants, building owners and managers on the conservation actions to promote and cater for bats in buildings.



Demolition

The demolition of buildings is a major threat to bat species that use them. This is especially true for demolitions where they are not part of a planning application. Where this occurs an S80 demolition notice is completed by the applicant and an S81 issued by a Building Control Officer at the local authority. In most cases the S80 form supplied by the local authority does not include a question on protected species and therefore it would seem likely that in many cases the presence of bats could be overlooked.

If there is a suspicion or likelihood that bats use a structure then it should be surveyed by an ecologist prior to demolition as the Countryside Right of Way Act and other legislation still applies.

BCT is working with the Association of Local Government Ecologists (ALGE), the Chartered Institute of Ecologists and Environmental Managers (CIEEM) and others to address this matter and raise awareness of local authority duty in this situation.

Bats in new buildings

The move towards low and zero carbon buildings places great emphasis on building structures being air-tight, but these buildings will not have the access and crevices normally used by building-reliant species such as bats and birds. In more traditional designs that use weather boarding/wood cladding, there is potential for some crevice dwellers (particularly pipistrelles, Brandt's bat and whiskered bats) to find roosts. However, unless positive, proactive steps are taken, there is concern that future housing stock will hold no potential for bat roosts for several species.

The good news is that it is possible to design into the fabric of the building ready-made or bespoke spaces for bats that still maintain the airtightness (U-value) of the building. Please consult the RIBA Publication *Designing for Biodiversity: A technical guide for new and existing buildings (2013)* for more information.



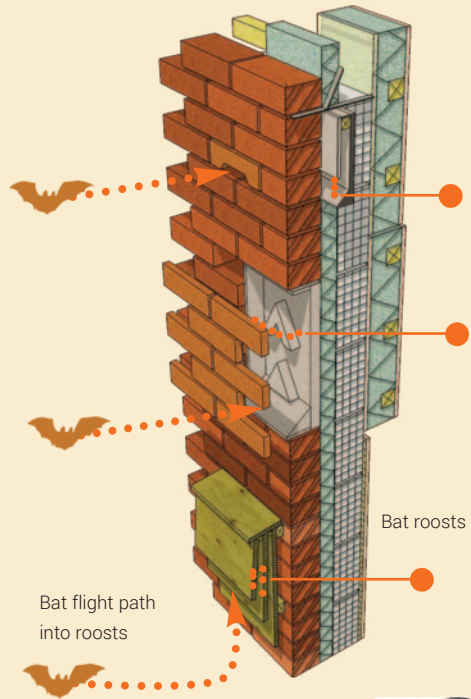
Pipistrelles in an eco-styrocrete single crevice box



Kent bat box

Further Bats and Built Environment advice

Bats in Buildings is just one of many best practice guidance notes as part of our Built Environment work programme that can be found at www.bats.org.uk. Other guidance includes topics such as artificial lighting, landscaping, designing for biodiversity, pest control and insulation. For the most up-to-date information please check our webpages and follow our social media.



Annex 7

Excerpt from Advice Note on the Lifespan of Ecological Reports and Surveys

ON THE LIFESPAN OF ECOLOGICAL REPORTS & SURVEYS

APRIL 2019

It is important that planning decisions are based on up-to-date ecological reports and survey data. However, it is difficult to set a specific timeframe over which reports or survey data should be considered valid, as this will vary in different circumstances. In some cases there will be specific guidance on this (such as for the age of data which may be used to support an EPS licence application). In circumstances where such advice does not already exist, CIEEM provides the general advice set out below.

For some projects the time taken between commencing the scoping or design and submitting a planning application can be several years, and this can result in the early ecology surveys becoming out-of-date (based on the advice set out below); this can lead to additional costs for developers associated with updating survey data. Nevertheless, there are considerable advantages associated with undertaking surveys early during the scoping or design phases of a project.

Ecological consultants should give careful consideration to which, if any, surveys need to be updated; design their data collection in a way which maximises the benefits of early surveys whilst minimising the costs to developers; and provide clarity on the likely lifespan of surveys in their reports.

AGE OF DATA	REPORT / SURVEY VALIDITY
Less than 12 months	Likely to be valid in most cases.
12-18 months	<p>Likely to be valid in most cases with the following exceptions:</p> <ul style="list-style-type: none"> • Where a site may offer existing or new features which could be utilised by a mobile species within a short timeframe (see scenario 1 example); • Where a mobile species is present on site or in the wider area, and can create new features of relevance to the assessment (see scenario 2 example); • Where country-specific or species-specific guidance dictates otherwise. <p>Report authors should highlight where they consider it likely to be necessary to update surveys within a timeframe of less than 18 months.</p>
18 months to 3 years	<p>A professional ecologist will need to undertake a site visit and may also need to update desk study information (effectively updating the Preliminary Ecological Appraisal) and then review the validity of the report, based on the factors listed below. Some or all of the other ecological surveys may need to be updated. The professional ecologist will need to issue a clear statement, with appropriate justification, on:</p> <ul style="list-style-type: none"> • The validity of the report; • Which, if any, of the surveys need to be updated; and • The appropriate scope, timing and methods for the update survey(s). <p>The likelihood of surveys needing to be updated increases with time, and is greater for mobile species or in circumstances where the habitat or its management has changed significantly since the surveys were undertaken. Factors to be considered include (but are not limited to):</p> <ul style="list-style-type: none"> • Whether the site supports, or may support, a mobile species which could have moved on to site, or changed its distribution within a site (see scenario 1&2 examples); • Whether there have been significant changes to the habitats present (and/or the ecological conditions/functions/ecosystem functioning upon which they are dependent) since the surveys were undertaken, including through changes to site management (see scenario 3 example); • Whether the local distribution of a species in the wider area around a site has changed (or knowledge of it increased), increasing the likelihood of its presence (see scenario 4 example).
More than 3 years	The report is unlikely to still be valid and most, if not all, of the surveys are likely to need to be updated (subject to an assessment by a professional ecologist, as described above).