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Ecological Surveys • Habitat Management • Arboricultural Surveys • Vegetation Clearance

**Land off Echo Hill,  
Royston, Hertfordshire  
(Ref 25/01708/OP)**

**A Review of Ecological Reporting  
Supporting the Planning Application**

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## DOCUMENT CONTROL SHEET

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## **Contents**

<b>1.0 Introduction</b>	<b>3</b>
<b>2.0 Methodology</b>	Error! Bookmark not defined.
<b>3.0 Habitats</b>	Error! Bookmark not defined.
<b>4.0 Fauna</b>	Error! Bookmark not defined.
<b>5.0 Ecological Designations</b>	Error! Bookmark not defined.
<b>6.0 Biodiversity Gain</b>	Error! Bookmark not defined.
<b>7.0 Summary and Conclusion</b>	<b>10</b>

## **1.0 Introduction**

- 1.1 Greenwillows Associates Ltd. has been commissioned to review additional ecological reports provided by the applicant in support of a planning application for new residential south of Royston (Ref 25/01708/OP). The development site comprises two fields that were formerly in arable production, but now managed for hay or possibly silage crops. Public Rights of Way adjoin the southern and western boundaries of the site. Outline permission is sought for up to 84 new dwellings.
- 1.2 Greenwillows has previously produced 'An Assessment of Likely Ecological Impacts of Proposed Development' (September 2025) which included a review of the Preliminary Ecological Appraisal (PEA) dated June 2025, produced by CSA Environmental. At that time, this PEA was the only ecological information which had been submitted.
- 1.3 An Ecological Impact Assessment (CSA Environmental, October 2025) and Biodiversity Net Gain Assessment: Design Stage (CSA Environmental, October 2025) have since been submitted in support of the planning application.
- 1.4 The purpose of this report is to review these submissions and, in the light of the findings reported, to re-evaluate likely ecological impacts arising from the proposed development.

## 2.0 Ecological Impact Assessment

2.1 The EclA describes the methodologies followed and the results of a range of ecological surveys undertaken within the development site (hereafter 'the site'). These include habitat/botanical, bat, badger, bird, and reptile surveys.

2.2 While the reporting of these surveys is welcomed, it is disappointing to note that bat and reptile surveys did not follow best practice guidance, and breeding bird surveys commenced late in the breeding season and so may have missed earlier nesting species.

### *Habitat Surveys and Condition Assessment*

2.3 Other than the residential property and associated habitats (suburban mosaic of developed and natural surface) the site is identified in the PEA as supporting other neutral grassland (g3c), a habitat identified within the statutory biodiversity metric <sup>1</sup> as being of medium distinctiveness.

2.4 Although the original habitat survey was undertaken in February 2025, outside the optimal season for survey, a follow-up survey and condition assessment was undertaken in June. However, it is unclear whether the June survey went beyond detailed assessment of just eight quadrats, each presumed to be of just 1square meter<sup>2</sup>. From the species list provided in the EclA it is likely that at least some casual wider recording was undertaken, but no detail of what this entailed is provided.

2.5 There are a number of concerns in relation to the habitat surveys, specifically in respect of the grassland condition assessment which was undertaken.

2.6 Firstly, it is noted that a total of just eight 1m<sup>2</sup> quadrats were assessed to inform the condition assessment of approximately 8.9ha of other neutral grassland. This equates to a sampling rate of less than 1m<sup>2</sup> per hectare of grassland. At a minimum, it is considered that, even for moderately uniform swards, the survey effort should be 5 quadrats per hectare.

2.7 Based in part on the results of the quadrat survey, parcel F1 is assessed as being in poor condition. Specifically, it fails condition assessment essential criterion A. This criterion asks whether "*The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type...*". The criterion references footnote 1 which states "*Professional judgement should be used alongside the UKHab description*".

2.8 The EclA appears to downplay the botanical diversity of the sward. At paragraph 4.15 it states "*Herbaceous species were encountered occasionally or rarely within the sward...*" However, the results of the quadrat surveys for F1 shown the presence in each 1m<sup>2</sup> of between two and five herbaceous species. Given their presence within each quadrat, it is

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<sup>1</sup> The Statutory Biodiversity Metric Calculation Tool, Defra, 2024

<sup>2</sup> Quadrat size is not explicitly stated within the EclA

difficult to understand how it can then be concluded that herbaceous species are encountered “occasionally or rarely...”

2.9 Further, it is noted that of the herbaceous species recorded in these quadrats, five are listed by BSBI<sup>3</sup> as axiophytes. To quote from the BSBI website “*Axiophytes are “worthy plants” – the 40% or so of species that arouse interest and praise from botanists where they are seen. They are indicators of habitat that is considered important for conservation ...*” In addition to the herb species, a sixth axiophyte, Yellow Oat-grass *Trisetum flavescens*, was recorded to be present within four of five quadrats in parcel F1. A number of other axiophytes were also recorded to be present within F1.

2.10 Despite the presence of these positive indicator species within the quadrats, for condition criterion A, the EcIA concluded that the grassland did not represent a good example of its habitat type. It appears that, at least in part, this is due to the relative abundance of sown grass species. However, of these species, Cock’s-foot *Dactylis glomerata* and Red Fescue *Festuca rubra* are constant species within the National Vegetation Classification<sup>4</sup> (NVC) MG5 lowland meadow (priority habitat) plant community, with Timothy *Phleum pratense*, Perennial Rye-grass *Lolium perenne* and Meadow Fescue *Schedonorus pratensis* also being regular components of the sward. As such, these species can be regarded as characteristic of mesotrophic (neutral) grasslands and should not be disregarded on the basis that they have been sown. (If assessment of sward diversity disregarded sown species, then sown other neutral grassland, as proposed for this development, would also likely be permanently in poor condition.)

2.11 The five quadrats sampled within parcel F1 supported a total of 17 species, with an average of 10.6 species/quadrat. Of these 17 species, five (Yarrow *Achillea millefolium*, Perennial Rye-grass *Lolium perenne*, Common Bent *Agrostis capillaris*, False oat-grass *Arrhenatherum elatius* and Cock’s-foot *Dactylis glomerata*) are listed in UKHab as characteristic of other neutral grassland g3c. In addition, Selfheal *Prunella vulgaris* is listed as characteristic of Arrhenatherum neutral grassland g3c5, while Lolium-Cynosurus neutral grassland g3c6 also lists Timothy and Yellow Oat-grass.

2.12 In addition, the soil type within the site is ‘freely draining shallow lime-rich soils over chalk or limestone’ which provide suitable conditions for calcareous grassland. Greater Knapweed *Centaurea scabiosa* (also an axiophyte), Hedge Bedstraw *Galium mollugo* and Wild Carrot *Daucus carota* are all species associated with more calcareous communities.

2.13 Based on the above, my professional judgement is that 14 of the 17 species recorded may reasonably be considered to be characteristic of either neutral or calcareous, medium (or higher) distinctiveness grassland types. As such, the grassland should be considered to pass condition criterion A, particularly as the quadrats consistently support a range of

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<sup>3</sup> Botanical Society of Britain and Ireland. See <https://bsbi.org/learn/getting-started/terms/general-terms/axiophytes>

<sup>4</sup> British Plant Communities Volume 3 Grasslands and Montane Communities. Rodwell, J.S. (Ed.) 1992

positive indicator species. If criterion A is considered to be met, then parcel F1 would likely be assessed as being in moderate condition, rather than poor. This would make a significant difference to the biodiversity gain calculations.

### *Faunal Surveys*

- 2.14 Bat surveys reported in the EclA include a precautionary survey of potential roosts, transect surveys (night-time bat walkover surveys) and automated/static surveys. It is noted that static surveys were undertaken monthly between May and September. However, best practice guidelines<sup>5</sup> identify that for sites of moderate or high habitat suitability, these surveys should be undertaken monthly from April to October. As such, the survey data presented should be considered to be incomplete.
- 2.15 Appendix H Bats within the EclA concludes that the site “*is considered to have limited interest for bats*”. However, within the main body of the text, the EclA notes that the site is identified as being of national significance for the assemblage of bats which were recorded during the surveys (see Table 4), although this assessment is then downgraded in the subsequent text to merely “*of ecological importance at the **County** level*”. One of the reasons given for this downgrading is that registrations of common species (in this case Common Pipistrelle *Pipistrellus pipistrellus*) are more frequent than those of rarer species such as Serotine *Cnephaeus (Eptesicus) serotinus* and Barbastelle *Barbastella barbastellus*. However, in the absence of a significant roost on or adjacent to the site, it will almost inevitably be the case that commoner species are encountered within a site more frequently than rarer species.
- 2.16 Paragraph 4.53 of the EclA states “*the managed grassland (is) unlikely to support a significant assemblage of food resources for bats*”. However, hay meadows can support significant insect faunas including moth species. As such, the grassland is likely to be of at least moderate value for foraging bats, including Barbastelle, which will forage over open areas when light levels are low.
- 2.17 In any event, and notwithstanding the incomplete survey data, the site is assessed as, at a minimum, being of ecological importance at the County level.
- 2.18 No surveys were undertaken for Harvest Mouse *Micromys minutus* on the basis that the site is managed by cutting. However, Harvest Mouse are found within cut grasslands (e.g. a site in north Cambridgeshire managed by an annual hay cut was found in 2024 to support good numbers of this species [S. Parnwell, pers comm.]) and even their common name is an indication that this is likely to be the case. Accordingly, it is considered that surveys should have been undertaken and that the absence of this species from the site cannot be assumed.
- 2.19 A series of surveys for breeding birds were undertaken between May and July.

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<sup>5</sup> See Table 8.3 in Bat Surveys for Professional Ecologists Good Practice Guidelines 4<sup>th</sup> edition. Bat Conservation Trust 2023 (updated March 2024).

Commencing surveys in May means that early nesting species may have been missed or under-recorded, with birds being less conspicuous whilst incubating eggs or feeding young than they would be when establishing territories. Despite that, the site was found to support possible or confirmed breeding by four red-listed farmland specialist bird species, namely Linnet *Linaria cannabina*, Yellowhammer *Emberiza citrinella*, Grey Partridge *Perdix perdix* and Skylark *Alauda arvensis*. All of these are also priority species as listed in accordance with S41 of the Natural Environment and Rural Communities Act 2006, including Skylark, although this is not indicated as such in Table 4 of Appendix J Birds. The EclA also identifies that the site is used by foraging Barn Owl *Tyto alba*. Based on the number of breeding species recorded, the site is assessed in the EclA as being of no more than local interest. Nonetheless, the site supports a total of seven priority species identified as possible or confirmed breeders, including four specialist farmland species, and foraging barn owl.

- 2.20 Reptile surveys were undertaken during June and July, outside the optimum months (April, May and September) identified in Froglife Advice Sheet 10. The majority of survey (five of seven) were also undertaken outside the recommended temperature range for surveys (9°C to 18°C). As such, the survey results may be underestimating the size of the Common Lizard *Zootoca vivipara* population recorded to be present within the site.

### *Conclusions*

- 2.21 A range of botanical and faunal surveys have been undertaken and reported. However, at under one 1m<sup>2</sup> quadrat per hectare, the level of botanical recording for sward condition assessment is considered insufficient; the reliability of bat survey results are undermined by incomplete recording through the survey season; reptile surveys were undertaken outside the optimum season and in unsuitably hot conditions; breeding bird surveys commenced late in the season and may have missed/underestimated early nesters; and harvest mouse surveys have not been undertaken although the site is likely to provide suitable conditions.
- 2.22 Notwithstanding these deficiencies, in terms of fauna, the site is identified as being of County-level (possibly higher) importance for bats; it also supports reptiles and a suite of red-listed/priority farmland bird species. The main habitat within the site is medium distinctiveness other neutral grassland. One of the two land parcels is identified as supporting other neutral grassland in good condition, with the other, larger field, assessed as being in poor condition. However, this latter assessment is challenged, with moderate condition thought to be a more accurate assessment of the value of the grassland.



### 3.0 Biodiversity Net Gain Assessment

- 3.1 The submitted report ('the assessment') shows there would be a net loss of on-site biodiversity (based on habitats as measured by the statutory metric) of 18.45 habitat units or approximately 32%, although these figures are occasionally represented as gains rather than losses within the report.
- 3.2 As discussed in relation to the EclA, Greenwillows Associates considers the condition assessment of grassland within parcel F1 is flawed. Assessment of parcel 1 as being in moderate condition would double the calculated biodiversity value, while even an assessment of 'fairly poor' would increase it by 50%. As such, it is considered that the baseline biodiversity value is significantly greater than reported.
- 3.3 Boxes 1 and 2 within the assessment sets out that the application complies with the mitigation hierarchy. However, the biodiversity gain mitigation hierarchy<sup>6</sup> states: *"...biodiversity gain hierarchy" means the following actions in the following order of priority –*
- (a) In relation to onsite habitat with habitat distinctiveness score, applied in the biodiversity metric, equal to or higher than four –
    - (i) avoiding adverse effects of the development, or
    - (ii) insofar as those adverse effects cannot be avoided, mitigating those effects;
  - (b) In relation to any onsite habitat which is adversely affected by the development, compensating for that adverse effect by –
    - (i) habitat enhancement of onsite habitat;
    - (ii) insofar as there cannot be that enhancement, creation of onsite habitat;
    - (iii) insofar as there cannot be that creation, the availability of registered offsite biodiversity gain for allocation to that development;
    - (iv) insofar as registered offsite biodiversity gain cannot be allocated to the development, the purchase of biodiversity credits.
- 3.4 Except for the onsite residential property and grounds, the entire site comprises other neutral grassland with a habitat distinctiveness score of four. Over 80% of this habitat would be lost to the proposals. Notwithstanding the proposed habitat creation and enhancement measures, the development would result in a net loss of biodiversity within the site, as measured by the metric, of over 30%, and with the mandatory biodiversity gain to be delivered through offsetting at an unspecified location. While this is an improvement on earlier proposals, it remains true that the proposals show a poor level of compliance with the biodiversity gain hierarchy. This is primarily because of the baseline

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<sup>6</sup> See Articles 37A & 37D of TCP (Development Management Procedure) (England) Order 2015 (the TCP Order 2015)

level of biodiversity within the site.

3.5 Further, although the site is identified within the Herts Ecological Networks mapping project as having potential for creation of chalk grassland, the habitat creation proposals relate to other neutral grassland, modified grassland and scrub.

3.6 As such, the proposed development would impact a site with good or reasonable potential for chalk grassland creation (as evidenced already by the colonisation of calcareous grassland species). It would result in a significant loss of biodiversity value within the site, and it would fail to create the appropriate target habitat.

## 4.0 Summary and Conclusion

- 4.1 Greenwillows Associates has reviewed the planning proposals based on the submitted Ecological Impact Assessment and Biodiversity Net Gain Assessment: Design Stage.
- 4.2 Despite significant flaws in survey methodologies/effort, the site has been shown to support a good range of protected/priority/notable species. The EclA records that the site supports an assemblage of bat species (including the Annex II Barbastelle) of at least County-level importance, reptiles and a suit of breeding red-listed farmland bird species. The Schedule 1 (WCA 1981) Barn Owl has also been recorded within the site. It may or may not also support Harvest Mouse. The grassland which makes up the majority of the site supports a range of calcareous and neutral grassland axiophytes, indicating that it is transitioning towards a relatively diverse grassland.
- 4.3 The proposed development would result in a significant loss of on-site biodiversity, as measured by the statutory metric, which is entirely based on habitat value. It is also likely that it would have significant impacts on faunal species. The assemblage of farmland specialist bird species is likely to be lost, due to factors potentially including proximity of housing, impacts from companion animals (cats and dogs) and disturbance from residents making use of public open space. It is also likely that the population of Common Lizard would be adversely affected by increased levels of predation from cats. The extent of impacts on bats is unclear at this stage, because this would depend in part on lighting impacts. However, there is particular concern that the site may be rendered unsuitable for the light-averse Barbastelle. This can occur through direct avoidance of illuminated areas, but also light-averse species may be put at a competitive disadvantage compared with species, such as Common Pipistrelle, that will forage around lights. Artificial lighting will draw insects away from unlit habitats, reducing foraging success for those bat species that remain within dark habitats.
- 4.4 It is concluded that the level of ecological interest of the site, particularly in relation to bats and breeding birds, renders it unsuitable for new development which could be readily provided in a less sensitive location
- 4.5 In addition to the inherent interest of the site itself, its location, as discussed in Greenwillows Associated previous submission, will inevitably result in increased recreational access to Therfield Heath SSSI, due to the proximity of the development site to this designation. While the proposals technically comply with the *Therfield Heath SSSI Mitigation Strategy*, the strategy apparently did not consider the possibility of a major planning application arising so close to the SSSI that the provision of on-site greenspace would be ineffective in mitigating impacts on the SSSI.
- 4.6 The NPPF states that development having an adverse impact on a SSSI should not normally be permitted. The site at Briary Lane is not an allocated development site in the Local Plan and there is no reason why the equivalent development could not be provided in a less damaging location. Indeed, in relation to Therfield Heath SSSI, this is probably the

most damaging location for development that could be found. For these reasons, it would seem appropriate for the application to be refused on the grounds of avoiding potential adverse impacts on a SSSI.

- 4.7 In relation to the development site itself, it is considered that there is sufficient ecological interest within the site itself (including County-level bat interest) to conclude that built development would be inappropriate.