

Technical Briefing Note

Project: Howbury Hall, Bedfordshire

TN01: Review of Ecological Constraints and Opportunities

August 2021

1 Introduction

- 1.1 Aspect Ecology is advising [redacted] in respect of the area of land known as Howbury Hall (see the enclosed Plan 6321/BN1), hereafter referred to as 'the site'. Aspect Ecology has been commissioned to assess the ecological deliverability of any new development at the site and provide an overview of any likely ecological constraints and opportunities as part of the site's promotion through the local plan.
- 1.2 The site is located immediately to the east of Bedford, with residential development and a crematorium demarking the majority of the western boundary of the site. To the north and east, the site is bound by the agricultural fields and parkland habitat, whilst to the south the site is bound by St Neots Road (A4280), beyond which are further agricultural fields.
- 1.3 An overview of the deliverability of the site is provided within this technical briefing note, and on the basis of this discussion, recommendations are made to guide the location of any future development within the site, in order to minimise any potential impacts on ecology. Further, this note sets out not only how to minimise potential adverse effects on ecology, but how new development can bring opportunities to the site, to deliver new habitats, enhance existing habitats and provide a range of benefits for a range of faunal species and expected net gains in biodiversity.

2 Methodology

- 2.1 This assessment comprises two stages, namely a desktop review of existing ecological data for the local area and a rapid Phase 1 survey of the site.

Desktop Study

- 2.2 In order to compile background information on the site and its immediate surroundings, freely available information has been utilised to identify the presence of any statutory designations within the site and/or the local area. Such information has been principally obtained from the online Multi-Agency Geographic Information for the Countryside (MAGIC) database, which utilises data provided by Natural England.

- 2.3 The Bedfordshire and Luton Biodiversity Recording and Monitoring Centre (BLBRMC) has also been contacted, to obtain information regarding locally-designated ecological sites, and the presence of rare, notable, and invasive species in the local area.

Rapid Phase 1 Survey

- 2.4 A rapid, high level Phase 1 habitat survey was undertaken in August 2021, based on standard Phase 1 Habitat Survey methodology¹, whereby habitat types within the site are identified and mapped, together with an assessment of the species composition of each habitat. This technique provides an inventory of the basic habitat types present and allows identification of areas of greater potential which require further survey (any such areas identified can then be examined in more detail through Phase 2 surveys at the appropriate detailed stage).

3 Assessment of the ecological status of the site

- 3.1 In order to frame an understanding of the potential suitability of the site to receive development, the current ecological value of the site is first discussed, as set out below under the headings ‘Ecological Designations’, ‘Habitats’ and ‘Fauna’.

Statutory Ecological Designations	
Notes	<p>The site itself is not subject to any nature conservation designation, nor are there any such designations located immediately adjacent to the site.</p> <p>The nearest international ecological designation to the site are Eversden and Wimpole Woods Special Area of Conservation (SAC), Portholme SAC and Upper Nene Valley Gravel Pits Special Protection Area (SPA), all of which are located approximately 21-23.5km from the site. These designations are respectively designated on the basis of a Barbastelle <i>Barbastella barbastellus</i> colony, the presence of Lowland Hay meadows, and an important assemblage of overwinter birds. All other international ecological designations are further removed from the site.</p> <p>The nearest national statutory nature conservation designation to the site Putnoe Woods Local Nature Reserve (LNR), located approximately 2.1km north west of the site, on the northern fringe of the town of Bedford. The next closest national designation is Mosbury Hill LNR, located approximately 2.5km north west of the site.</p> <p>The closest non-statutory ecological designation to the site is Castle Dairy Farm Meadows County Wildlife Site (CWS), located approximately 100m south west of the site. This CWS is designated due to the presence of neutral grassland.</p>

Habitats	
Notes	<p>The site is dominated by large open arable fields, comprising an intensely farmed crop at the time of survey. In addition, a small number of fields are located within the south of the site which were recorded to comprise improved grassland, and were in use for cattle grazing at the time of survey. Overall, these fields which dominate the site are of very little ecological interest, being subject to intensive farming practices. Field margins are present at the boundaries of the fields, though these are predominantly no more than 4m in width, and comprise semi-improved grassland, with a low broad-leaved herb content. These margins do not appear to be specifically managed for wildlife value, and as such are unlikely to qualify as a priority habitat.</p> <p>Nevertheless, although the site is dominated by habitats of low ecological value, a number of other habitats are also present within the site (largely at the site boundaries) which are considered to be of some elevated value, namely a wooded belt, field</p>

¹ Joint Nature Conservation Committee (2010) ‘Handbook for Phase 1 habitat survey: A technique for environmental audit.’

	<p>boundary hedgerow and tree lines, parkland habitat and semi-mature tree cover. These habitats of elevated ecological value are described briefly below;</p> <p><i>Woodland Belt</i></p> <p>A linear woodland is present along on the western boundary of the site, forming the boundary feature. This woodland belt measures approximately 20m in width, and comprise a closed canopy of mature Oak and Ash, with a dense understorey beneath of Hawthorn, Blackthorn, Ash, Field Maple, Roas sp., and Elder. <u>Overall this woodland form a strong linear feature and is habitat of elevated ecological value and an important ecological feature.</u></p> <p><i>Field boundary hedgerows and tree lines</i></p> <p>A number of field boundary hedgerows and treelines are present around and bisecting the site. These comprise a number of native species (albeit Elm is almost exclusively dominant on the eastern site boundary). <u>Overall this boundary features form linear features and are of elevated ecological value and an important ecological feature.</u></p> <p><i>Parkland</i></p> <p>Within the south of the site is a portion of parkland habitat (as defined by BLBRMC). On the ground, the area of ‘parkland’ within the site includes very few trees (no more than 5 trees, none of which are more than mature), whilst the grassland beneath is improved (comprising almost exclusively of grasses) and grazed by cattle. As such, the area of ‘parkland’ habitat within the site is certainly not a prime example of this habitat type. However, the on-site area of parkland habitat is only a small portion of a wider area (which is under the control of the same landowner), and the wider area includes a number of trees, a number of which appear to be of greater maturity. <u>Overall this onsite habitat (being a small portion of a wider offsite area) is of only low ecological value, albeit the wider area of offsite parkland habitat is a likely important ecological feature, albeit the character of the parkland habitat is also itself limited by the quality and management of the grassland ground flora.</u></p> <p><i>Semi-mature Tree cover</i></p> <p>Within the south of the site is an area of tree cover, nominally an area of woodland albeit the condition of the woodland (with minimal understorey and no ground flora) is such that only a closed, semi-mature canopy is present, comprising species such as Ash, Oak ad Elm. The area of tree cover is used for the keeping of pigs, and the intensive associated foraging is the likely explanation for the near absence of understorey and ground flora. <u>Overall, the closed woodland like canopy confers some opportunities for faunal species and as such may be considered an important ecological feature, but it is an ecological feature of notably reduced value due to the current management.</u></p>
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Fauna	
Notes	<p>The habitats on site (dominated by open agricultural fields) offer extremely limited potential for protected faunal species. Where such opportunities exist, these are discussed below:</p> <p>Bats. The network of boundary woodland, trees and hedgerows that bound and bisect the site offers some commuting opportunities for bat species, and it is likely that common bat species may utilise the boundary features for commuting, and even foraging activity.</p> <p>Great Crested Newt. A small number of records of Great Crested Newt were returned</p>

	<p>from the desktop study, of which none were from the site. The nearest record of Great Crested Newt is from 300m south west of the site. No waterbodies appear to be present within the site, albeit a single pond is present adjacent to the north eastern boundary, which appears to have potential to support Great Crested Newts. However, the onsite vegetation adjacent to this offsite pond comprises intensive arable farmland offering negligible opportunities for amphibians, such that in the event that amphibians make use of this pond, they are reasonably unlikely to make use of the site. As such, whilst the presence or absence of Great Crested Newts would need to be confirmed at the planning stage, the species is unlikely to represent a constraint to development.</p> <p>Nesting Birds. The site offers opportunities for farmland birds (as well as common urban birds, where the site abuts Bedford). However, the intensive farming employed within the site is likely to limit such opportunities for birds, albeit .</p>
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4 Discussion of the ecological deliverability of the site

Ecological Designations

- 4.1 No international or national nature conservation designations are present within close proximity to the site. Accordingly, it is considered that such nature conservation designations should not form an overriding constraint to any future development.
- 4.2 In terms of local designations, Castle Dairy Farm Meadows CWS is located in close proximity to the site. However, this designation is removed from the site (and separated by the A4280) such that there will be no direct effects as a result of development of this site. Further, there is no public access to this area, with no permissive or public footpaths through the CWS, such that indirect effects (such as recreational pressure) are also not anticipated.
- 4.3 Accordingly, it is considered that nature conservation designations should not form an overriding constraint to any future development.

Habitats

- 4.4 **Constraints.** The majority of the site comprises open agricultural land which is intensively managed, and is of little (if any) ecological value. However, a number of hedgerows are present across the site, which are of some ecological value (especially in the context of the site), as well as an area of tree cover along the southern site boundary. Such habitats should be incorporated into the proposals, and retained within appropriate buffers, with a sensitive urban design seeking to maximise their ecological value. Where it is required to create access through hedgerows or tree lines, roads should be designed to narrow down to a single lane in order to limit any removals to a minimum and retain canopy connectivity.
- 4.5 In addition, development will require land take within the south of the site, removing small areas of low quality tree cover (to create access off the A4280) and resulting in the loss of areas of low quality parkland habitat. However, significant offsite areas of these habitats are within the ownership of the landowner, and as such there is considerable scope to enhance these offsite habitats (enhancing the grassland sward within the offsite parkland, and creating a good understory and ground flora within the offsite areas of tree cover) that would not only compensate for any loss but also deliver notable enhancements across the wider landscape.
- 4.6 **Opportunities.** The site has huge potential to enhance an area of countryside that is largely devoid of ecological value. The proposals being brought forward will include significant green infrastructure, which can deliver notable green corridors of high ecological value across the site. Such corridors could bolster the existing boundary linear woodland and hedgerow

network or provide entirely new areas of habitat, creating wide semi-natural corridors across the site, comprising habitats such as wildflower grassland, new hedgerows, a network of waterbodies, new tree planting, and community orchards, all of which would represent significant gains over the current agricultural setting. It is recommended that green infrastructure is developed strategically in order to maximise the potential ecological value of such features, with a specific focus on creating a linked network of valuable habitat throughout the site and enhancing the existing boundary features (especially the linear woodland along the western site boundary, where a new ecotone of scrub and wildflower grassland would represent a significant enhancement over the current arable setting).

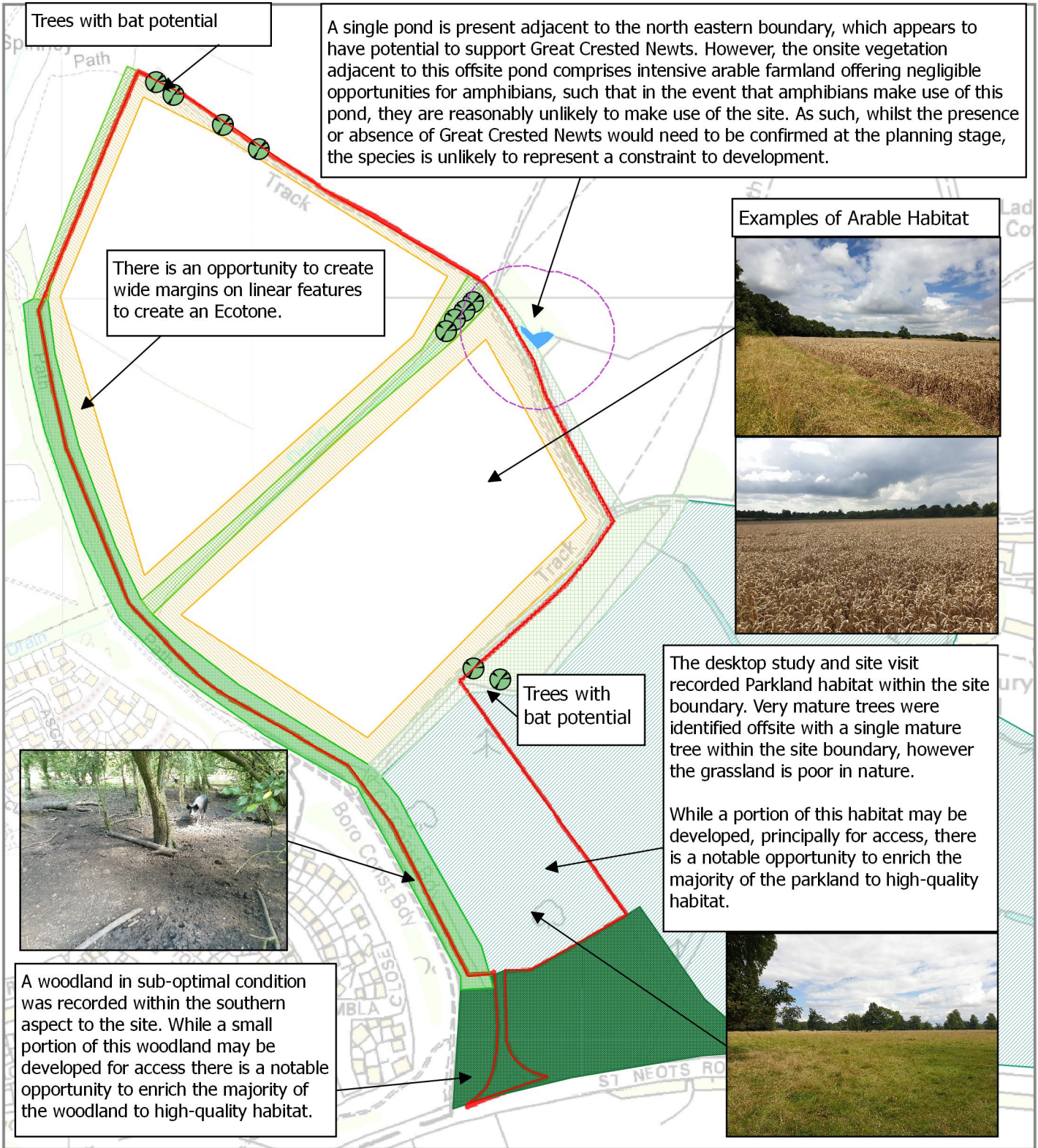
- 4.7 Overall, it is considered that habitats and ecological features do not present an overriding constraint to future development.

Protected Faunal Species

- 4.8 **Constraints.** The majority of the site comprises open agricultural land which is intensively managed, and therefore offers few opportunities for faunal species. Where opportunities are potentially present, these are associated with the boundary hedgerows and linear woodland. These features are all recommended for retention and sensitive inclusion within any proposals (see above), and as such existing opportunities for the majority of faunal species will be retained under any future proposals.
- 4.9 **Opportunities.** Under any sensitively delivered proposals, opportunities for faunal groups are anticipated to notably increase. The creation of significant areas of green infrastructure will transform current intensively farmed agricultural land, instead providing a variety of high value habitats and corridors that will benefit a range of species and species groups at a landscape level.
- 4.10 Accordingly, it is considered that protected faunal species do not present an overriding constraint to future development but conversely new development has the capacity to notably enhance opportunities for wildlife.

5 **Conclusion**

- 5.1 In conclusion, a small number of potential constraints are present at the site, however the site is largely dominated by open agricultural land which is intensively managed. The careful design of the proposed development will readily enable the retention of hedgerows and linear woodland of value and as such the delivery of the site is readily achievable in terms of ecology. Indeed, under the proposed allocation there is the opportunity to deliver a significant net gain in biodiversity, through the creation of notable areas of strategic open space of high ecological value.



Key:

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|  | Site Boundary |  | Hedgerow |
| Constraints | |  | Linear Woodland |
|  | 50m Buffer | Opportunities | |
|  | Pond |  | Woodland |
|  | Mature Trees |  | Opportunities for Buffer Zones |
|  | Tree Line |  | Parkland |



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Howbury Hall	PROJECT
Constraints and Opportunities	TITLE
6321/ Cons&Opps	DRAWING NO.
-	REV
August 2021	DATE

