

## Land at Hanwell Fields, Banbury (1006007-01)

# **Ecological Appraisal**

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Quality Management				
Client: Manor Oak Homes				
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## **Executive Summary**

- i) Introduction. Aspect Ecology has been commissioned by Manor Oak to undertake an Ecological Appraisal in respect of proposed development of land at Hanwell Fields, Banbury, Oxfordshire.
- ii) **Proposals.** The proposals are for development of the site to provide new residential development of up to 176 dwellings, for which an outline planning application is proposed with all matters apart from access reserved for future consideration.
- iii) Survey. The site has been surveyed on a number of occasions between August 2020 and July 2022, based on standard extended Phase 1 methodology. In addition, a general appraisal of faunal species was undertaken to record the potential presence of any protected, rare or notable species, with specific surveys conducted in respect of bats, reptiles and Badger.
- iv) Ecological Designations. The site itself is not subject to any statutory or non-statutory ecological designations. No identified statutory ecological designations are located within 5km of the site. The nearest non-statutory designation is Fishponds Wood, Hanwell Local Wildlife Site (LWS), which is located approximately 0.7km north west of the current site boundary. All of the ecological designations in the surrounding area are physically well separated from the site and are therefore unlikely to be adversely affected by the proposals.
- v) Habitats. The site forms the eastern part of a semi-improved grassland field, with other habitats including boundary hedgerows and scattered scrub. Features of ecological importance include the hedgerows and associated trees, which are to be retained under the proposals and will be protected during construction, with only small sections removed to facilitate access. This will be compensated by new hedgerow planting which will link with the existing / retained hedgerows. Further, substantial new native planting and wildlife habitats are proposed (including enhancement of additional offsite land), in order to ensure biodiversity net gains as calculated using the Defra metric calculator.
- vi) **Protected Species.** The internal areas of the site generally offer limited opportunities for protected species, albeit on the basis of the survey work undertaken, potential opportunities or confirmed use of the site by badger, bats and common nesting birds have been recorded. Accordingly, a number of recommendations and measures are set out in regard to these species in order to ensure they are fully considered and safeguarded under the proposals. Long-term nesting opportunities will be maintained, if not enhanced, under the proposals through new landscape planting and favourable management of habitats (including offsite BNG habitats) and provision of nest boxes.
- vii) **Enhancements.** The proposals present the opportunity to secure a number of biodiversity net gains, including additional native tree planting, new roosting opportunities for bats, and more diverse nesting habitats for birds. The proposals have been considered using the DEFRA 3.1 metric calculator, which demonstrates that the development can achieve a substantial calculated net gain in area habitat and hedgerow units.
- viii) **Summary.** In summary, the proposals have sought to minimise impacts on biodiversity and subject to the implementation of appropriate avoidance, mitigation and compensation measures, it is considered unlikely that the proposals will result in significant harm.

## **1** Introduction

## 1.1 Background and Proposals

- 1.1.1 Aspect Ecology has been commissioned by Manor Oak Homes Ltd to undertake an Ecological Appraisal in respect of proposed development of land located north of Dukes Meadow Drive, Hanwell Fields in the north of Banbury, centred at grid reference SP 447 427 (see Plan 6007-01/ECO1), hereafter referred to as 'the site'.
- 1.1.2 The site is proposed for residential development, including the construction of up to 176 dwellings and associated infrastructure and open space (see Appendix 6007-01/1), for which an outline planning application is proposed, with all matters apart from access reserved for future consideration. The proposals essentially form the second phase of proposed development within the wider landholding, following the recent granting of planning permission for up to 78 new dwellings and associated works within the adjacent land immediately south of the current site boundary.

## 1.2 Site Overview

- 1.2.1 The site is located in north Oxfordshire within an urban-edge context at the north of Hanwell Fields in Banbury. The site is bounded to the north by arable farmland, beyond the existing northern field boundary hedgerow, whilst Dukes Meadow Drive and associated verges are located adjacent to the southern boundaries, beyond which is existing commercial and residential development and open space within the north of Banbury. East of the site is an area of managed sports pitches and pavillion forming Hanwell Fields Recreation Ground. The western site boundary is undefined on the ground, located internally within the existing grassland field, with further grassland therefore extending offsite to the west of the current site boundary.
- 1.2.2 The site itself is dominated by semi-improved grassland, forming the eastern parts of a single existing former agricultural field with other habitats including boundary hedgerows and scrub.

## 1.3 **Purpose of the Report**

1.3.1 This report documents the methods and findings of the baseline ecology surveys and desktop study carried out in order to establish the existing ecological interest of the site, and subsequently provides an appraisal of the likely ecological effects of the proposals. The importance of the habitats and species present is evaluated. Where necessary, avoidance, mitigation and compensation measures are proposed so as to safeguard any significant existing ecological interest within the site and where appropriate, opportunities for ecological enhancement are identified with reference to national conservation priorities and local Biodiversity Action Plans (BAPs).

## 2 Methodology

## 2.1 **Desktop Study**

- 2.1.1 In order to compile background information on the site and its immediate surroundings, Thames Valley Environmental Records Centre (TVERC) was contacted, with data requested on the basis of a search radius of 2km.
- 2.1.2 Where information has been received from the above organisation(s) this is reproduced at Appendix 6007-01/2 and on Plan 6007-01/ECO2, where appropriate.
- 2.1.3 Information on statutory designations was obtained from the online Multi-Agency Geographic Information for the Countryside (MAGIC) database, which utilises data provided by Natural England, with an extended search radius (25km). In addition, the MAGIC database was searched to identify the known presence of any Priority Habitats within or adjacent the site. Relevant information is reproduced at Appendix 6007-01/2 and on Plan 6007-01/ECO2, where appropriate.
- 2.1.4 In addition, the Woodland Trust database was searched for any records of ancient, veteran or notable trees within or adjacent to the site.

## 2.2 Habitat Survey

- 2.2.1 The site has been surveyed over a number of visits from August 2020 to August 2022 in order to ascertain the general ecological value of the land contained within the boundaries of the site and to identify the main habitats and ecological features present.
- 2.2.2 The site was surveyed based on standard Phase 1 Habitat Survey methodology<sup>1</sup>, whereby the habitat types present 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. This method was extended, in line with the Guidelines for Preliminary Ecological Appraisal<sup>2</sup> to record details on the actual or potential presence of any notable or protected species or habitats.
- 2.2.3 Using the above method, the site was classified into areas of similar botanical community types, with a representative species list compiled for each habitat identified. The nomenclature used for plant species is based on the Botanical Society for the British Isles (BSBI) Checklist.

## 2.3 Faunal Surveys

2.3.1 General faunal activity, such as mammals or birds observed visually or by call during the course of the surveys was recorded. Specific attention was also paid to the potential presence of any protected, rare or notable species, and specific consideration was given to bats, Badger and common reptiles, as described below.

<sup>&</sup>lt;sup>1</sup> Joint Nature Conservation Committee (2010, as amended) 'Handbook for Phase 1 habitat survey: A technique for environmental audit.'

<sup>&</sup>lt;sup>2</sup> Chartered Institute for Ecology and Environmental Management (CIEEM) (2013) 'Guidelines for Preliminary Ecological Appraisal.'

#### Bats<sup>3</sup>

- 2.3.2 **Trees**. Trees were assessed for their suitability to support roosting bats based on the presence of features such as holes, cracks, splits or loose bark. Suitability for roosting bats was rated based on relevant guidance<sup>4</sup> as:
  - Negligible;
  - Low;
  - Moderate; or
  - High.
- 2.3.3 Any potential roost features identified were also inspected for any signs indicating possible use by bats, e.g. staining, scratch marks, bat droppings, etc.

#### Badger (Meles meles)<sup>5</sup>

- 2.3.4 Detailed Badger survey work has been carried out at the site in July 2021 and again in May and July 2022. The survey comprised two main elements. The first element involved searching for evidence of Badger setts. For any setts that were encountered, each sett entrance was noted and mapped. The following information was recorded:
  - Number and location of well used / active entrances; these are clear from any debris or vegetation and are obviously in regular use and may, or may not, have been excavated recently;
  - Number and location of inactive entrances; these are not in regular use and have debris such as leaves and twigs in the entrance or have plants growing in or around the edge of the entrance; and
  - Number of disused entrances; these have not been in use for some time, are partly or completely blocked and cannot be used without considerable clearance. If the entrance has been disused for some time all that may be visible is a depression in the ground where the hole used to be and the remains of the spoil heap.
- 2.3.5 The second element involved searching for signs of Badger activity such as well-worn paths and push-throughs, snagged hair, footprints, latrines and foraging signs, so as to build up a picture of any use of the site by Badger.

#### Reptiles<sup>6</sup>

- 2.3.6 Given the presence of potentially suitable reptile habitat within the site, specific survey work was undertaken to establish the presence/absence of common reptile species at the site and adjacent survey area during September and October 2021.
- 2.3.7 A total of 120 sheets of thick roofing felt (each measuring a minimum of approximately 0.5m x 0.5m) were placed within suitable areas across the site to act as artificial refugia throughout the survey period (see Plan 6007-01/ECO4). The refugia, or 'tins', provide shelter and heat up more quickly than their surroundings in the morning and can remain

<sup>&</sup>lt;sup>3</sup> Surveys based on: English Nature (2004) 'Bat Mitigation Guidelines' and Collins, J. (ed.) (2016) 'Bat Surveys for Professional Ecologists: Good Practice Guidelines (3<sup>rd</sup> edn).' Bat Conservation Trust

<sup>&</sup>lt;sup>4</sup> Collins, J. (ed.) (2016) 'Bat Surveys for Professional Ecologists: Good Practice Guidelines (3<sup>rd</sup> edn).' Bat Conservation Trust

<sup>&</sup>lt;sup>5</sup> Based on: Mammal Society (1989) 'Occasional Publication No. 9 – Surveying Badgers'

<sup>&</sup>lt;sup>6</sup> Surveys based on: Froglife Advice Sheet 10 (1999) '*Reptile Survey - an introduction to planning, conducting and interpreting surveys for snake and lizard conservation.*'

warmer than their surroundings in the late afternoon. Being ectothermic (cold blooded), reptiles use them to bask under and raise their body temperature, which allows them to forage earlier and later in the day. Therefore, checking the refugia at appropriate times of the day (morning and evening) enables the presence/absence of common reptiles to be determined.

2.3.8 The refugia remained undisturbed for approximately 1-2 weeks to allow reptiles to find and start using them. Following this initial bedding-in period, refugia were checked at appropriate times of the day on a total of 9, as set out below in Table 2.1.

Suman Data	Weather Conditions					
Survey Date	Wind (BF)	Temp(°C)	Cloud Cover (%)	Precipitation		
21/09/2021	2	15-16	25	Dry		
22/09/2021	2	11-13	95	Dry		
28/09/2021*	3	12-14	95	Dry		
29/09/2021*	3	12-13	25	Dry		
01/10/2021	3	13-14	15	Dry		
04/10/2021	3	10-11	10	Dry		
06/10/2021	2	11-13	15	Dry		
12/10/2021	3	10-11	90	Dry		
14/10/2021	2	10-12	95	Dry		

 Table 2.1. Reptile survey dates and weather conditions.

BF0 = calm, BF12 = hurricane force. \* NB See constraints below – partial survey only due to prior removal of a number of mats outside of the Phase 1 area.

2.3.9 In addition, reptiles basking in the open or partial cover were actively searched for in suitable locations across the site through direct observation. Existing natural objects (e.g. logs and rocks) and artificial refugia (e.g. debris, tyres, etc.) were also searched, where present, for reptiles or evidence of reptiles (e.g. sloughed skin).

## 2.4 **Survey Constraints and Limitations**

- 2.4.1 All of the species that occur in each habitat would not necessarily be detectable during survey work carried out at any given time of the year, since different species are apparent during different seasons. The Phase 1 habitat survey was undertaken within the optimal season therefore allowing a robust assessment of habitats and botanical interest across the site.
- 2.4.2 Attention was paid to the presence of any invasive species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). However, the detectability of such species varies due to a number of factors, e.g. time of year, site management, etc., and hence the absence of invasive species should not be assumed even if no such species were detected during the Phase 1 survey.
- 2.4.3 In regard to the reptile survey work, during the period between the surveys on 22 September and 28 September 2021, vegetation within the field was cut, such that a number of the refugia within the survey area (including within the current site boundary) were affected. Accordingly, the survey visits undertaken on 28 and 29 September incorporated a reduced number of refugia within the survey area. The refugia were therefore replaced and an additional 2 survey visits added (making a total of 9) to ensure that a total of 7 survey visits were undertaken across the full number of refugia in line with standard guidance (albeit the partial surveys undertaken on 28 and 29 September are therefore additional and provide further confidence in the result). Accordingly, overall the reptile survey work



undertaken is considered to provide a robust assessment of the current status of reptiles at the site.

## 2.5 **Ecological Evaluation Methodology**

2.5.1 The evaluation of ecological features and resources is based on professional judgement whilst also drawing on the latest available industry guidance and research. The approach taken in this report is based on that described by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2018)<sup>7</sup>, which involves identifying 'important ecological features' within a defined geographical context (i.e. international, national, regional, county, district, local or site importance). For full details refer to Appendix 6007-01/3.

## 2.6 **National Policy Approach to Biodiversity in the Planning System**

- 2.6.1 The National Planning Policy Framework (NPPF)<sup>8</sup> describes the Government's national policies on 'conserving and enhancing the natural environment' (Chapter 15). NPPF is accompanied by Planning Practice Guidance on 'Biodiversity, ecosystems and green infrastructure' and ODPM Circular 06/2005<sup>9</sup>.
- 2.6.2 NPPF takes forward the Government's strategic objective to halt overall biodiversity loss<sup>10</sup>, as set out at Paragraph 174, which states that planning policies and decisions should contribute to and enhance the natural and local environment by:

'minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures'

2.6.3 The approach to dealing with biodiversity in the context of planning applications is set out at Paragraph 180:

'When determining planning applications, local planning authorities should apply the following principles:

- a) 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;
- b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
- c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless

<sup>&</sup>lt;sup>7</sup> CIEEM (2018) 'Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine', ver. 1.2, Chartered Institute of Ecology and Environmental Management, Winchester

<sup>&</sup>lt;sup>3</sup> Ministry of Housing, Communities & Local Government (2021) '*National Planning Policy Framework'* 

<sup>&</sup>lt;sup>9</sup> ODPM (2006) 'Circular 06/2005: Planning for Biodiversity and Geological Conservation – A Guide to Good Practice'

<sup>&</sup>lt;sup>10</sup> DEFRA (2011) 'Biodiversity 2020: A strategy for England's wildlife and ecosystem services'

there are wholly exceptional reasons and a suitable compensation strategy exists; and

- d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.'
- 2.6.4 The above approach encapsulates the 'mitigation hierarchy' described in British Standard BS 42020:2019<sup>11</sup>, which involves the following step-wise process:
  - Avoidance avoiding adverse effects through good design;
  - **Mitigation** where it is unavoidable, mitigation measures should be employed to minimise adverse effects;
  - **Compensation** where residual effects remain after mitigation it may be necessary to provide compensation to offset any harm; and
  - **Enhancement** planning decisions often present the opportunity to deliver benefits for biodiversity, which can also be explored alongside the above measures to resolve potential adverse effects.
- 2.6.5 The measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development (BS 42020:2019, section 5.5).

## 2.7 Local Policy

2.7.1 Policy of relevance to ecology at the site can be found within the 'Cherwell Local Plan 2011 – 2031', which sets out an overall strategy to guide development across the district until 2031, and was formally adopted by Cherwell District Council on 20 July 2015 (Policy Bicester 13 being re-adopted on 19 December 2016). The following policies of the Local Plan are of particular relevance to ecology:

# 2.7.2 **Policy ESD 10: Protection and Enhancement of Biodiversity and the Natural Environment** states:

'Protection and enhancement of biodiversity and the natural environment will be achieved by the following:

- In considering proposals for the development, a net gain in biodiversity will be sought by protecting, managing, enhancing and extending existing resources, and by creating new resources
- The protection of trees will be encouraged, with an aim to increase the number of trees in the District
- The reuse of soils will be sought
- If significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or as a last resort, a compensated for, then development will not be permitted.
- Development which would result in damage to or loss of a site of international value will be subject to the Habitats Regulations Assessment process and will not be permitted

<sup>&</sup>lt;sup>11</sup> British Standards Institution (2013) 'Biodiversity – Code of practice for planning and development', BS 42020:2019

unless it can be demonstrated that there will be no likely significant effects on the international site or that effects can be mitigated

- Development which would result in damage or loss of a site of biodiversity or geological value of national importance will not be permitted unless the benefits of the development clearly outweigh the harm it would cause to the site and the wider national network of SSSIs and the loss can be mitigated to achieve a net gain in biodiversity/geodiversity
- Development which would result in damage to or loss of a site of biodiversity or geological value of regional or local importance including habitats of species of principle importance for biodiversity will not be permitted unless the benefits of the development clearly outweigh the harm it would cause to the site, and the loss can be mitigated to achieve a net gain in biodiversity/geodiversity
- Development proposals will be expected to incorporate features to encourage biodiversity, and retain and where possible enhance existing features of nature conservation value within the site. existing ecological networks should be identified and maintained to avoid habitat fragmentation, and ecological corridors should form an essential component of green infrastructure provision in association with new development to ensure habitat connectivity
- Relevant habitat and species surveys and associated reports will be required to accompany planning applications which may affect a site, habitat or species of known or potential ecological value
- Air quality assessments will also be required for development proposals that would be likely to have a significantly adverse impact on biodiversity by generating an increase in air pollution
- Planning conditions/obligations will be used to secure net gains in biodiversity by helping to deliver Biodiversity Action Plan targets and/or meeting the aims of Conservation Target Areas. Developments for which these are the principal aims will be viewed favourable
- A monitoring and management plan will be required for biodiversity features on site to ensure their long term suitable management.'

#### 2.7.3 **Policy ESD 11: Conservation Target Areas** states:

Where development is proposed within or adjacent to a Conservation Target Area biodiversity surveys and a report will be required to identify constraints and opportunities for biodiversity enhancement. Development which would prevent the aims of a Conservation Target Area being achieved will not be permitted. Where there is potential for development, the design and layout of the development, planning conditions or obligations will be used to secure biodiversity enhancement to help achieve the aims of the Conservation Target Area.'

2.7.4 The site is not located within or adjacent to any identified Conservation Target Area based on the adopted information.

#### 2.7.5 **Policy ESD 17: Green Infrastructure** states:

The District's green infrastructure network will be maintained and enhanced through the following measures:

- Pursuing opportunities for joint working to maintain and improve the green infrastructure network, whilst protecting sites of importance for nature conservation
- Protecting and enhancing existing sites and features forming part of the green infrastructure network and improving sustainable connectivity between sites in



accordance with policies on supporting amodal shift in transport (Policy SLE4: Improved Transport and Connections), open space, sport and recreation (Policy BSC10: Open Space, Outdoor Sport and Recreation Provision), adapting to climate change (PolicyESD1: Mitigating and Adapting to Climate Change), SuDS (Policy ESD7: Sustainable Drainage Systems (SuDS)), biodiversity and the natural environment (Policy ESD10: Protection and Enhancement of Biodiversity and the Natural Environment), Conservation Target Areas (Policy ESD11: Conservation Target Areas), heritage assets (Policy ESD15) and the Oxford Canal (Policy ESD16)

- Ensuring that green infrastructure network considerations are integral to the planning of new development. Proposals should maximise the opportunity to maintain and extend green infrastructure links to form a multi-functional network of open space, providing opportunities for walking and cycling, and connecting the towns to the urban fringe and the wider countryside beyond
- All strategic development sites (Section C: 'Policies for Cherwell's Places') will be required to incorporate green infrastructure provision and proposals should include details for future management and maintenance.

## **3** Ecological Designations

## 3.1 Statutory Designations

#### **Description**

- 3.1.1 The statutory designations of ecological importance that occur within the vicinity of the site are shown at Appendix 6007-01/2 and on Plan 6007-01/ECO2.
- 3.1.2 No identified statutory ecological designations of nature conservation importance are located within 5km of the site. (Neithrop Fields Cutting Site of Special Scientific Interest (SSSI), is located approximately 0.8km south west of the site, however is designated for geological reasons and is therefore not of ecological relevance, albeit in any event it is well-removed from the site).
- 3.1.3 Natural England has developed Impact Risk Zones (IRZs) as an initial tool to help assess the risk of developments adversely affecting SSSIs, taking into account the type and scale of developments. The site is not located within any identified IRZ of relevance to new residential development.

#### **Evaluation**

3.1.4 The site itself is not subject to any statutory ecological designations. All statutory ecological designations in the surrounding area are well removed from the site and separated by existing development and given the nature and scale of the proposals, all such identified designations are unlikely to be affected.

## 3.2 Non-statutory Designations

#### Description

- 3.2.1 The non-statutory designations of nature conservation interest that occur within the vicinity of the site are shown on Plan 6007-01/ECO2.
- 3.2.2 The nearest non-statutory nature conservation designation to the site is Fishponds Wood, Hanwell Local Wildlife Site (LWS), which is located approximately 0.7km north west of the current site boundary at its closest point. The LWS is designated on the basis of the medieval fishponds, one of which is noted to contain an island supporting pines with nesting herons. The remaining ponds are reported to be made up mostly of dry and wooded areas with a variety of characteristic flora including Giant Butterbur *Petasites japonicus*, Plott's Elm *Ulmus plotti*, Broad-leaved Helleborine *Epipactis helleborine* and impressive displays of Snowdrop *Galanthus nivalis*.

#### **Evaluation**

3.2.3 The site itself is not subject to any non-statutory nature conservation designations. All nonstatutory designations in the surrounding area are well removed and separated from the site, including by existing development and given the nature and scale of the proposals, all such designations are unlikely to be adversely affected as a result of the proposals.



## 3.3 **Priority Habitats, Ancient Woodland and Notable Trees**

#### **Description**

3.3.1 No identified ancient woodland is located within 2km of the site. A single mature Ash *Fraxinus excelsior* (T2), located offsite within the wider land under the control of the applicant, approximately 100m west of the current site boundary, is identified as a notable tree on the Woodland Trust database. Specific arboricultural information has been prepared in order to inform the proposed development (*"Land North of Dukes Meadow Drive, Banbury: Arboricultural Impact Assessment"*, Aspect Arboriculture Ltd, dated August 2022 – ref: 10791\_AIA.002), which confirms tree T2 possesses a large trunk diameter in comparison to others of the same species along with features commensurate with veteran status. In addition, a further single mature Ash (T17) located along the northern site boundary is similarly identified to possess a large trunk diameter in comparison to others of heatures commensurate with veteran status. Accordingly, both T2 and T17 are considered to represent veteran trees. No other notable or veteran trees have been identified within the proximity of the site based on the desktop information available. The site does not contain any priority habitats identified on the MAGIC database.

#### **Evaluation**

3.3.2 Tree T2 is located outside of, and removed from the current development site boundary and accordingly, will remain unaffected under the current proposals. Tree T17 is located along the northern site boundary. The tree will be retained and protected (including adjacent to a substantial buffer of open space, including an identified veteran tree buffer zone in relation to arboricultural considerations). Subject to the implementation of appropriate mitigation measures (as discussed below, and within the associated arboricultural information prepared by Aspect Arboriculture Ltd in relation to the proposed development ) trees T2 and T17 will be fully safeguarded and it is therefore unlikely that any Priority Habitats or any notable or veteran trees will be significantly affected by the proposals.

#### 3.4 **Summary**

3.4.1 In summary, the site itself is not subject to any statutory or non-statutory ecological designations and, subject to the implementation of appropriate mitigation measures (as described above), it is unlikely that any such designations, priority habitats, ancient woodland or notable/veteran trees will be significantly affected by the proposals.



## 4 Habitats and Ecological Features

## 4.1 Background Records

4.1.1 No specific records of any protected, rare or notable plant species from within or immediately adjacent to the site are included within the information returned from the Records Centre. A number of records of notable species were returned from TVERC including the Wildlife and Countryside Act 1981 Schedule 8 Species Bluebell *Hyacinthoides non-scripta* and the England Red Listed Species Common Valerian *Valeriana officinalis,* Sainfoin *Onobrychis viciifolia,* Wild Pansy *Viola tricolor,* Ragged-robin *Silene flos-cuculi,* Stinking Chamomile *Anthemis cotula,* Prickly Poppy *Papaver argemone,* Lesser Spearwort *Ranunculus flammula,* Dwarf Spurge *Euphorbia exigua,* Corn Marigold *Glebionis segetum* and Hairy Rock-cress *Arabis hirsuta,* dating between 2001 and 2019, none of which have been recorded within or adjacent to the site on the basis of the information received.

#### 4.2 **Overview**

- 4.2.1 The habitats and ecological features present within the site are described below and evaluated in terms of whether they constitute an important ecological feature and their level of importance, taking into account the status of habitat types and the presence of rare plant communities or individual plant species of elevated interest. The likely effects of the proposals on the habitats and ecological features are then assessed. The value of habitats for the fauna they may support is considered separately in Chapter 5 below.
- 4.2.2 The following habitats/ecological features were identified within/adjacent to the site:
  - Semi-improved Grassland;
  - Hedgerows and Trees; and
  - Scrub.
- 4.2.3 The locations of these habitat types and features are illustrated on Plan 6007-01/ECO3 and described below.

#### 4.3 **Priority Habitats**

- 4.3.1 Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006 places duties on public bodies to have regard to the conservation of biodiversity in the exercise of their normal functions. In particular, Section 41 of the NERC Act requires the Secretary of State to publish a list of habitats which are of principal importance for conservation in England. This list is largely derived from the 'Priority Habitats' listed under the former UK Biodiversity Action Plan (BAP), which continue to be regarded as priority habitats under the subsequent country-level biodiversity strategies.
- 4.3.2 Of the habitats within the site, hedgerows are considered to qualify as Priority Habitats and therefore constitute important ecological features. This is discussed further in the relevant habitat sections below.



## 4.4 Semi-improved Grassland

#### **Description**

The vast majority of the site is formed by semi-improved grassland located on an east facing 4.4.1 slope forming the lower parts of a single field. Over the course of the survey work, the sward height was noted to vary according to the progression of management, with periods of tall sward noted, interspersed with uniform short vegetation following regular agricultural management (including during August 2021 and June 2022). The eastern areas of grassland in particular were noted to support frequent low colonising/encroaching scrub and Bramble at times, with considerable bare ground evident following occasional cutting and management (both in 2021 and 2022). The grassland sward was recorded to be largely dominated by False Oat-grass Arrhenatherum elatius, with frequent Perennial Ryegrass Lolium perenne, Yorkshire Fog Holcus lanatus, Cock's-foot Dactylis glomerata and Meadow Grass *Poa sp.*, albeit bare and disturbed ground was noted to be frequent, resulting from irregular cutting and agricultural management (particularly following removal of colonising scrub and Bramble). Frequent ruderal species and recolonizing vegetation was noted to be present reflecting regular agricultural disturbance, albeit overall the habitat is clearly best categorised as grassland, with occasional scattered scrub and denser patches of grass noted in places prior to cutting. Offsite areas west of the current site boundary, higher up the slope were noted in particular to support a more mature grassland sward, dominated by False Oat-grass. Of particular interest within the grassland sward, Adder's Tongue Fern Ophioglossum vulgatum was noted to be present in the western areas of the current site boundary during survey work undertaken in May 2022. Other species present within the grassland sward include frequent Stinging Nettle Urtica dioica (including extensive patches at the margins), Red Clover Trifolium pratense, White Clover Trifolium repens, Creeping Buttercup Ranunculus repens, Creeping Thistle Cirsium arvense, Field Bindweed Convolvulus arvensis, Bent Agrostis sp., Bristly Ox-tongue Helminthotheca echioides, Willowherbs Epilobium sp., Broad-leaved Dock Rumex obtusifolius, Bramble Rubus fruticosus, Ragwort Jacobaea vulgaris, Hairy Tare Vicia hirsuta, Common Field-speedwell Veronica persica, Scentless Mayweed Tripleurospermum inodorum, Rosebay Willowherb Chamerion angustifolium, Meadowsweet Filipendula ulmaria and Common Mouse-ear Cerastium fontanum.

#### **Evaluation**

4.4.2 Overall, the grassland is clearly subject to agricultural management and disturbance, and includes grasses and forb species along with frequent ruderal elements and based on the type and abundance of species present it can be classified as semi-improved grassland<sup>12</sup>. Semi-improved grassland is not uncommon in the local area and higher quality areas of grassland are present in the surrounding area, such as Hanwell Gorse Cherwell Proposed District Wildlife Site. Survey work undertaken in May and June 2022 identified the presence of Adder's Tongue Fern. This species is not specifically protected or rare, but provides some local interest and can represent an indicator or longstanding grassland. However, the nature of the grassland present was recorded to be subject to sporadic agricultural management, with variously frequent colonising scrub/Bramble and bare/disturbed ground supporting frequent ruderal species indicative of disturbance and lacking in any other specific indicators of longstanding undisturbed grassland habitats. Nonetheless, mitigation measures are recommended n Chapter 6., below in regard to this species. Overall the grassland present is not considered to constitute an important ecological feature and is of

<sup>&</sup>lt;sup>12</sup> Natural England (2010) 'Higher Level Stewardship – Farm Environment Plan (FEP) Manual', 3<sup>rd</sup> Edition

ecological value at the site level only. The potential for the grassland within site to support faunal species is discussed at Section 5, below.

## 4.5 Hedgerows and Trees

#### **Description**

4.5.1 Four hedgerows (H1 to H4) are present within the site, located along the southern, eastern and northern site boundaries respectively. Hedgerow descriptions are set out at Table 4.1 below.

<b>Table 4.1.</b> Hedgerow descriptions.
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No.	н	w	Woody species	Avg. per 30m*	Ground flora & climbers	Associated features	Comments (including structure / management)	Likely to qualify <sup>#</sup>
H1a	4-5m	3-4m	<u>Hawthorn (D),</u> <u>Blackthorn Prunus</u> <u>spinosa (D), Elder,</u> <u>Ash, Cherry, Dog Rose</u> <u>Rosa canina</u> .	<4	Bramble, Common Nettle, Rosebay Willowherb Chamerion angustifolium, Spear Thistle Cirsium vulgare, Creeping Thistle Cirsium arvense, Hogweed Heracleum sphondylium, Hedge Parsley Torilis sp.	Gaps present, but <10%	Old, outgrown hedge which is somewhat gappy, but still continuous; mammal path recorded; a relatively short length of dry ditch is present towards hedge centre; a single semi-mature Ash tree was recorded.	N
НЗ	5-6m	1-3m	<u>Hawthorn,</u> <u>Blackthorn, Hazel,</u> <u>Ash, Aspen, Alder,</u> <u>Field Maple, Guelder</u> <u>Rose, Dog Rose</u>	≥5	Bramble	No associated features.	Mixed hedgerow including landscape shrub planting and more longstanding Hawthorn along eastern site boundary.	N
H4	5-10m	5m +	<u>Hawthorn, Elder,</u> <u>Blackthorn</u>	<4	Bramble, Stinging Nettle	Trees present, and connection to adjacent hedgerows otherwise no associated features.	Mature, outgrown boundary hedgerow with trees dominating the eastern end. Single large mature Oak (T20) present.	N
H5	4-5m	2-3m	<u>Hawthorn, Elder,</u> <u>Blackthorn, Field</u> Maple, Crab Apple	~4	Bramble, Stinging Nettle	Standard trees present, including single large mature Ash (T17 - identified as veteran within arboricultural information)	Mature boundary hedgerow, outgrown, variable structure in places albeit any gaps <10%.	N

Woody species (as listed under Schedule 3 of the Hedgerows Regulations 1997) and woodland ground flora species (as listed under Schedule 2 of the Hedgerows Regulations 1997) underlined, y = young, sm = semi-mature, m = mature, pv = possible veteran, B = bank, W = wall, br = bridleway, f/p = footpath, b/w = byway, (D) = dominant species

\* estimated average number of woody species (as listed under Schedule 3 of the Hedgerows Regulations 1997) in any one 30m stretch

<sup>#</sup> likely to qualify – as 'important' under the wildlife and landscape criteria of the Hedgerows Regulations 1997

#### **Evaluation**

- 4.5.2 The hedgerows present are limited to the northern, eastern and southern site boundaries. The hedgerows are relatively substantial and in places outgrown, and contain a number of standard trees (including in particular a large mature Ash (T17) located within hedgerow H5, which has been identified as a veteran tree within the arboricultural information prepared in respect of the site and is therefore of some considerable value, representing an irreplaceable habitat in line with NPPF).
- 4.5.3 From a preliminary appraisal, **H3** is considered to be species-rich<sup>13</sup>, however the majority of species were recorded within the southern parts of the hedgerow, which are clearly less than 30 years old (e.g. as confirmed through available historical imagery available at googleearth.com), with the (older) northern section dominated by Hawthorn and accordingly, the hedgerow is considered unlikely to qualify as ecologically 'important' under the Hedgerows Regulations 1997. Based on the number of woody species and associated features, the other hedgerows present are unlikely to qualify as important under the Regulations.
- 4.5.4 All of the hedgerows within the site are likely to qualify as a Priority Habitat based on the standard definition<sup>14</sup>, which includes all hedgerows (>20m long and <5m wide) consisting predominantly (≥80%) of at least one native woody species. It has been estimated that approximately 84% of countryside hedgerows in GB qualify as a Priority Habitat under this definition.<sup>14</sup>
- 4.5.5 On this basis, the hedgerows within the site constitute important ecological features, although given the relatively limited network present, are only of importance at the local level.
- 4.5.6 The proposals incorporate the retention of all the hedgerows within the site, and incorporated into substantial buffers of green infrastructure, with the only losses occurring to a small sections at the east of H1a for construction of the proposed site access (consistent with the previously permitted adjacent residential development located immediately south of the site). Retained hedgerows will be protected during the construction phase of the proposals as per the recommendations included at Chapter 6 below. In addition, the proposals offer the opportunity to secure and prolong the life of the existing veteran tree (irreplaceable habitat), through the implementation of a veteran tree management plan as part of the wider proposed landscape management actions (see Chapter 6.).
- 4.5.7 Furthermore, the proposals incorporate new planting which will link with and strengthen the existing / retained hedgerows, which will aim to enhance the value of these features for biodiversity.

#### 4.6 **Scrub**

#### Description

4.6.1 Very occasional scrub was recorded to be present within the site, predominantly associated with the extreme south eastern site boundary adjacent to the offsite road verge associated with Dukes Meadow Drive, much of which appears to be formed by planted landscaping associated with the construction of the road. In particular, species present include Dogwood *Cornus sanguinea*, Field Maple *Acer campestre*, Guelder-rose, Bramble, Cherry,

<sup>&</sup>lt;sup>13</sup> i.e. five or more native woody species within a 30m length (or four or more in Northern England) – FEP Manual

<sup>&</sup>lt;sup>14</sup> Based on: Biodiversity Reporting and Information Group (2011) 'UK Biodiversity Action Plan (BAP) Priority Habitat Descriptions', ed. Ant Maddock

Field Rose *Rosa arvensis*, Grey Willow *Salix cinerea*, Hazel, Hawthorn, Silver Birch *Betula pendula*, Blackthorn *Prunus fruticosus*, Ash *Fraxinus excelsior*, Goat Willow *Salix caprea* and Grey Willow *Salix cinerea*. Elsewhere within the site, scrub and Bramble were noted encroaching within the grassland at various times (between sporadic vegetation clearance/cutting as part of the regular agricultural management of the site), as described above, which was predominantly recorded to be composed of Bramble, Hawthorn and Willows.

#### Evaluation

4.6.2 The patches of scrub support a limited range of common and widespread species associated with the landscape planted road verges and field margin, which in general therefore appears relatively recent in nature and encroaching scrub within the grassland, which is sporadic and periodically removed through ongoing agricultural management of the field. On this basis, it is considered that the scrub present within the site is of ecological value at no more than the site level, whilst this habitat type is common and widespread in the local vicinity of the site. Accordingly, the loss of scrub within the site is considered to be of no ecological significance. Nevertheless, the proposals incorporate substantial new tree and hedgerow planting that will provide new and replacement opportunities for wildlife, as described in Chapter 6.

## 4.7 Habitat Evaluation Summary

4.7.1 On the basis of the above, the following habitats within and adjacent to the site are considered to form important ecological features:

Habitat	Level of Importance
Hedgerows	Local
Veteran Tree	Local

 Table 4.2. Evaluation summary of habitats forming important ecological features.

4.7.2 Other habitats present within the site include semi-improved grassland and scrub. However, these habitats do not form important ecological features.

## 5 Faunal Use of the Site

## 5.1 **Overview**

5.1.1 During the survey work, general observations were made of any faunal use of the site with specific attention paid to the potential presence of protected or notable species. Specific survey work was undertaken in respect of Badgers, bats and reptiles, with the results described below.

## 5.2 **Priority Species**

- 5.2.1 Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006 places duties on public bodies to have regard to the conservation of biodiversity in the exercise of their normal functions. In particular, Section 41 of the NERC Act requires the Secretary of State to publish a list of species which are of principal importance for conservation in England. This list is largely derived from the 'Priority Species' listed under the former UK Biodiversity Action Plan (BAP), which continue to be regarded as priority species under the subsequent country-level biodiversity strategies.
- 5.2.2 Where individual priority species, or potential for such species was recorded within the site, this is discussed further at the relevant section, below.

## 5.3 **Bats**

- 5.3.1 Legislation. All British bats are classed as European Protected Species under the Conservation of Habitats and Species Regulations 2017 (as amended) and are also listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). As such, both bats and their roosts (breeding sites and resting places) receive full protection under the legislation (see Appendix 6007-01/4). If proposed development work is likely to result in an offence a licence may need to be obtained from Natural England which would be subject to appropriate measures to safeguard bats. Given all bats are protected species, they are considered to represent important ecological features. A number of bat species are also considered S41 Priority Species.
- 5.3.2 **Background Records.** No specific records of bats from within or adjacent to the site were returned from the desktop study. Information received from the LRC returned records of Unidentified bat species (Chiroptera), Brown Long-eared Bat *Plecotus auritus*, Common Pipistrelle *Pipistrellus pipistrellus*, Soprano Pipistrelle *Pipistrellus pygmaeus*, Pipistrelle bat species *Pipistrellus sp.*, Daubenton's Bat *Myotis daubentonii*, Natterer's Bat *Myotis nattereri* and Noctule *Nyctalus noctula* within 2km of the site. The closest record is for a Pipistrelle bat species recorded in 2001, located approximately 310m south east of the site boundary.

#### 5.3.3 Survey Results and Evaluation

<u>Roosting</u>

Buildings

5.3.4 The site does not contain any buildings or other structures that could provide potential opportunities for roosting bats.



Trees

5.3.5 A number of semi-mature and mature trees are present on site. The results of the tree assessment work undertaken at the site are illustrated on Plan 6007-01/ECO3 and summarised in Table 5.1 below:

Tree No.	Species	Age	Potential Roost Features	Suitability
T17	Ash	Mature/ Veteran	facing west, major old tear-out wound at 4-6m	
T20	Oak	Mature	Peeling bark noted, along with potential cracks and minor dead limbs.	Medium-High
T25	Ash	Early mature	Split limb, minor potential features (no obvious major cavities or features)	Low
T27	Crack Willow	Mature	Substantial dead wood, cracks and woodpecker holes.	Medium-High

Table 5.1. Tree inspection results.

5.3.1 It is understood that all trees within the site, including those described above with potential bat roost features, are to be retained under the proposals, such that in the event that bats are present within the trees they will remain unaffected. As such, subject to the implementation of the recommendation outlined at Chapter 6 below in relation lighting, it is considered that bats will be fully safeguarded under the proposals.

#### Foraging / Commuting

- 5.3.2 As noted above, the habitats within the site, in particular the boundary hedgerows and trees provide substantial vegetated corridors, which offer potential foraging/commuting habitat for bats (albeit noting the proximity of Dukes Meadow Drive and associated development adjacent to the south eastern boundary which likely provides existing light spill). This combination of habitat types occurs relatively frequently in the surrounding area and taking this into the account the site is considered likely to be of no more than local value to bats.
- 5.3.3 The vast majority of the hedgerows and trees within the site will be retained under the proposals, whilst new tree, hedgerow and shrub planting will improve connectivity through the site and increase the foraging potential of the site, in combination with additional habitats including new and retained grassland and attenuation features.
- 5.3.4 Accordingly, subject to the implementation of the recommendations outlined at Chapter 6 below, along with other ecological enhancements, it is considered that the conservation status of local bat populations will be fully safeguarded under the scheme.

#### 5.4 Badger

5.4.1 **Legislation.** Badger receive legislative protection under the Protection of Badgers Act 1992 (see Appendix 6007-01/4), and as such should be assessed as an important ecological feature. The legislation aims to protect the species from persecution, rather than being a response to an unfavourable conservation status, as the species is in fact common over most of Britain. It is the duty of planning authorities to consider the conservation and welfare impacts of development upon Badger and issue permissions accordingly.



- 5.4.2 Licences can be obtained from Natural England for development activities that would otherwise be unlawful under the legislation. Guidance on the types of activity that should be licensed is laid out in the relevant best practice guidance.<sup>15, 16</sup>
- 5.4.3 **Survey Results and Evaluation.** Survey results and evaluation in respect of Badger are set out in a Confidential Appendix separate to this report.

### 5.5 **Other Mammals**

- 5.5.1 **Legislation.** A number of other UK mammal species do not receive direct legislative protection relevant to development activities but may receive protection against acts of cruelty (e.g. under the Wild Mammals (Protection) Act 1996). In addition, a number of these mammal species are S41 Priority Species and should be assessed as important ecological features.
- 5.5.2 **Background Records.** No specific records of other mammals from within or adjacent to the site were returned from the desktop study. A number of records of Hedgehog *Erinaceus europaeus* (Priority Species) were returned from within the search area around the site, with the closest record being from approximately 0.8m west of the site, recorded in 2013.
- 5.5.3 **Survey Results and Evaluation.** No evidence of any other protected, rare or notable mammal species was recorded within the site. Other mammal species likely to utilise the site, such as Fox *Vulpes vulpes*, Brown Rat *Rattus norvegicus* and Rabbit *Oryctolagus cuniculus* remain common in both a local and national context, and as mentioned above do not receive specific legislative protection in a development context. As such, these species are not a material planning consideration and the loss of potential opportunities for these species to the proposals is of negligible significance.
- 5.6 The desktop study returned background records of Hedgehog within the surrounding area. Hedgehog is a Priority Species, albeit this species remains common and widespread in England. The site offers potential opportunities for this species, particularly in the form of hedgerows and boundary vegetation. Given the abundance of similar habitats locally, Hedgehog is considered to be of importance at a site level only and there is no evidence to suggest the proposals will significantly affect local Hedgehog populations, whilst in any event in the long term the proposals incorporate the retention of the existing boundary features and vegetation, along with new green infrastructure incorporating native planting and enhanced habitats that will continue to provide suitable (potentially enhanced) habitat opportunities for common mammals such as this species. However, it is recommended that precautionary safeguards are put in place to minimise the risk of harm to Hedgehog in the event this species is present, as detailed in Chapter 6 below.

## 5.7 **Amphibians**

5.7.1 **Legislation.** All British amphibian species receive a degree of protection under the Wildlife and Countryside Act 1981 (as amended). Great Crested Newt is protected under the Act and is also classed as a European Protected Species under the Conservation of Habitats and Species Regulations 2017 (as amended). As such, both Great Crested Newt and habitats utilised by this species are afforded protection (see Appendix 6007-01/4 for detailed provisions). Great Crested Newt is also a S41 Priority Species, as are Common Toad *Bufo* 

<sup>&</sup>lt;sup>15</sup> English Nature (2002) 'Badgers and Development'

<sup>&</sup>lt;sup>16</sup> Natural England (2011) 'Badgers and Development: A Guide to Best Practice and Licensing', Interim Guidance Document

*bufo*, Natterjack Toad *Epidalea calamita*, and Pool Frog *Pelophylax lessonae*. As such, these species should be assessed as important ecological features.

- 5.7.2 **Background Records.** No specific records of Great Crested Newt or other amphibians from within or adjacent to the site were returned from the desktop study. A number of records of Amphibian species were returned from within the search area surrounding the site, including Great Crested Newt, Common Toad, Common Frog *Rana temporaria* and Smooth Newt *Lissotriton vulgaris*, with the closest records of Great Crested Newt located approximately 0.6km north east of the site, recorded in 2015.
- 5.7.3 **Survey Results and Evaluation.** No evidence for the presence of any fully protected amphibian species (e.g. Great Crested Newt) was recorded during the general survey work undertaken. The site and wider survey area does not contain any standing water bodies and accordingly does not support any potentially suitable breeding habitats for this species. Furthermore, based on a review of the OS 1:25 000 mapping of the area, along with available aerial photography and associated resources, no ponds or other standing waterbodies appear to be located within 250m of the site. Amphibians, including Great Crested Newt, can range some distance from their breeding ponds, although typically the majority of activity with regard to this species is centred within 250m of the breeding pond with the maximum routine migratory range usually occurring within 250m of the pond.
- 5.7.4 The habitats within the site appear to provide potentially suitable terrestrial habitats for amphibians (in particular including the hedgerows and boundary vegetation), however as noted above these appear to be well separated from any potentially suitable breeding sites for fully protected amphibian species. Accordingly, this group does not appear to represent a potential constraint on the proposed development.

## 5.8 **Reptiles**

- 5.8.1 Legislation. All six species of British reptile are listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), which protects individuals against intentional killing or injury. Sand Lizard Lacerta agilis and Smooth Snake Coronella austriaca receive additional protection under the Conservation of Habitats and Species Regulations 2017 (as amended); refer to Appendix 6007-01/4. All six reptile species are also S41 Priority Species. As such, all reptile species should be assessed as important ecological features.
- 5.8.2 **Background Records.** No records of any reptile species within the site or immediately adjacent areas were returned within the information obtained from TVERC. A number of records of Grass Snake *Natrix natrix* and Common Lizard *Zootoca vivipara*, within the wider 2km search area around the site were returned, with the closest record to the site being of Grass snake, recorded approximately 0.4km north east of the site in 2012.
- 5.8.3 **Survey Results and Evaluation.** Specific survey work for reptiles was undertaken at the site and wider associated land under the same ownership, the results of which are summarised in Table 5.2., below.

Vicit	Visit Date	Common Lizard		Slow Worm		Grass Snake		Other Creation
VISIC		Adult	Juv.	Adult	Juv.	Adult	Juv.	Other Species
1	21/09/2021	0	0	0	0	0	0	0
2	22/09/2021	0	0	0	0	0	0	0
3*	28/09/2021*	0	0	0	0	0	0	0
4*	29/09/2021*	0	0	0	0	0	0	0
5	01/10/2021	0	0	0	0	0	0	0
6	04/10/2021	0	0	0	0	0	0	0
7	06/10/2021	0	0	0	0	0	0	0
8	12/10/2021	0	0	0	0	0	0	0
9	14/10/2021	0	0	0	0	0	0	0
Peak Count		C	)	C	)	C	)	

#### Table 5.2. Reptile survey results summary.

\*In line with information set out within the methodology, above, surveys 3 and 4 were partial only due to reduced numbers of refugia following regular agricultural management.

- 5.8.4 As shown in the table above, no reptiles were recorded within the site during any of the survey visits undertaken.
- 5.8.5 As set out above, no reptiles were recorded at the site during the survey work undertaken, whilst no background records of reptile species were returned from within the site or immediately adjacent areas (the nearest such records being removed from the site boundaries).
- 5.8.6 As such, on the basis of the available evidence, reptile species are unlikely to be present within the site and do not, therefore, appear to represent a current constraint on the proposed development of the site.
- 5.8.7 A number of habitats within the site remain suitable for this group, which could therefore theoretically colonise the site at any time should reptile species be present within nearby suitable habitats (albeit the absence of any records of reptiles from the site or immediate surroundings returned by the data search, in common with the current survey indicates that any potential for future colonisation is likely to be reduced).

#### 5.9 **Birds**

- 5.9.1 **Legislation.** All wild birds and their nests receive protection under Section 1 of the Wildlife and Countryside Act 1981 (as amended) in respect of killing and injury, and their nests, whilst being built or in use, cannot be taken, damaged or destroyed. Species included on Schedule 1 of the Act receive greater protection and are subject to special penalties (see Appendix 6007-01/2).
- 5.9.2 **Conservation Status.** The conservation importance of British bird species is categorised based on a number of criteria including the level of threat to a species' population status<sup>17</sup>. Species are listed as Green, Amber or Red. Red Listed species are considered to be of the highest conservation concern being either globally threatened and or experiencing a high/rapid level of population decline (>50% over the past 25 years). A number of birds are also S41 Priority Species. Red and Amber listed species and priority species should be assessed as important ecological features.

<sup>&</sup>lt;sup>17</sup> Eaton MA, Aebischer NJ, Brown AF, Hearn RD, Lock L, Musgrove AJ, Noble DG, Stroud DA and Gregory RD (2015) 'Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and the Isle of Man' British Birds 108, pp.708-746

- 5.9.3 **Background Records.** Information from the data search includes records for several bird species in the vicinity of the site, including the Red/Amber Listed species Skylark *Alauda arvensis*, Redwing *Turdus iliacus*, Willow Tit *Poecile montana*, Reed Bunting *Emberiza schoeniclus*, Lapwing *Vanellus vanellus*, Linnet *Linaria cannabina*, House Sparrow *Passer domesticus*, Swift *Apus apus* and Dunnock *Prunella modularis* (most of which are also Priority Species). The first four listed species were all recorded within the 1km grid square including the site, albeit more specific information was not available that would allow the precise location of these records to be determined in relation to the site, whilst no more specific records of any of the above species were returned from the site itself.
- 5.9.4 **Survey Results and Evaluation.** Bird species recorded within the site and adjacent areas within the same landholding during the survey work undertaken include Wood Pigeon *Columba palumbus*, Blackbird *Turdus merula* and Dunnock *Prunella modularis*. In addition, Yellowhammer *Emberiza citrinella* was heard calling offsite within distant agricultural land located north of the site during the 2021 surveys.
- 5.9.5 Woodpigeon and Blackbird are not listed as having any special conservation status, while Dunnock is included on the Amber List, as a result of declines in UK breeding populations, and is also Priority Species. However, the habitats present are common in the surrounding area and there is no evidence to suggest the site is of elevated value at a local level for this species (which in any case, are common in Great Britain<sup>18</sup>), or any other priority or red/amber list species (e.g. Yellowhammer). The vast majority of the hedgerows, trees and scrub present within the site will be retained and protected under the proposals, albeit minor losses are required in order to provide access, whilst ongoing management could similarly impact on nesting birds utilising woody vegetation at the site at the time of works. Accordingly, a number of safeguards in respect of nesting birds are proposed, as detailed in Chapter 6 below. In the long-term, new nesting opportunities will be available for birds as described in Chapter 6 below.

## 5.10 Invertebrates

- 5.10.1 Legislation. A number of invertebrate species are listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). In addition, Large Blue Butterfly Maculinea arion, Fisher's Estuarine Moth Gortyna borelii lunata and Lesser Whirlpool Ram's-horn Snail Anisus vorticulus receive protection under the Conservation of Habitats and Species Regulations 2017 (as amended); refer to Appendix 6007-01/2. A number of invertebrates are also S41 Priority Species. Where such species are present, they should be assessed as important ecological features.
- 5.10.2 **Background Records.** No specific records of invertebrates were returned from within or adjacent to the site. A number of records of Small Heath *Coenonympha pamphilus*, Grizzled Skipper *Pyrgus malvae*, Wall *Lasionmata megera*, White-clawed Crayfish *Austropotamobius pallipes* and Blood-vein *Timandra comae* (all Priority Species, the majority of which relate to historic records over 20 years old) were returned within the information received from TVERC, with the closest in the last 20 years, being Small Heath recorded approximately 1.1km north of the site.
- 5.10.3 **Survey Results and Evaluation.** No evidence for the presence of any protected, rare or notable invertebrate species was recorded within the site. Invertebrate species recorded within the site and adjacent land within the same ownership include Small Tortoiseshell *Aglais urticae*, Meadow Brown *Maniola jurtina*, Large White *Pieris brassicae*, Gatekeeper *Pyronia tithonus*, Ringlet *Aphantopus* hyperantus, Cinnabar Moth *Tyria jacobaeae*

<sup>&</sup>lt;sup>18</sup> Population estimates of birds in Great Britain and the United Kingdom. Musgrove *et al.*, British Birds, 2013



caterpillar, Puss Moth *Cerura vinula* caterpillar, Blowfly *Lucilia* sp., Seven-spot Ladybird *Coccinella septempunctata*, and Roesel's Bush Cricket *Metrioptera roeselii*, along with plant galls confirming the presence of the Bedeguar Gall Wasp *Diplolepis rosae* and Common Spangle Gall Wasp *Neuroterus quercusbaccarum*. In addition, larva of the Sawfly *Cimbex luteus* was recorded on Willow *Salix caprea* within the wider vicinity.

5.10.4 The site has several areas of bare ground and occasional patches of scrub but otherwise the internal areas contain relatively few micro-habitats that would typically indicate elevated potential for invertebrates<sup>19</sup>, such as a variable topography with areas of vertical exposed soil, areas of species-rich semi-natural vegetation; walls with friable mortar or fibrous dung. Accordingly, given the habitat composition of the site and lack of adjacent sites designated for significant invertebrate interest, it is considered unlikely that the proposals will result in significant harm to any protected, rare or notable invertebrate populations, and the site is not considered to support an important invertebrate assemblage.

#### 5.11 Summary

5.11.1 On the basis of the above, a summary of the evaluation of fauna is provided below:

Species / Group	Supported by or associated with the site	Level of Importance	
Bats – Roosting	Potential habitat in the form of trees	Local	
Bats – Foraging / Commuting	Suitable habitat present	Local	
Badger	Confirmed presence (refer to separate confidential appendix)	Local	
Birds	Confirmed presence on site	Local	

**Table 5.3.** Evaluation summary of fauna forming important ecological features.

5.11.2 Other fauna supported by the site include non-priority species of mammals, amphibians and invertebrates. However, these species do not form important ecological features.

<sup>&</sup>lt;sup>19</sup> Natural England (2010) 'Higher Level Stewardship – Farm Environment Plan (FEP) Manual', 3<sup>rd</sup> Edition

## 6 Mitigation Measures and Biodiversity Net Gains

## 6.1 Mitigation

6.1.1 Based on the habitats, ecological features and associated fauna identified within / adjacent to the site, it is proposed that the following mitigation measures (**MM1** to **MM7**) are implemented under the proposals. Further, detailed mitigation strategies or method statements can be secured via suitably-worded planning conditions, as recommended by relevant best practice guidance (BS 42020:2019).

#### Hedgerows and Trees

6.1.2 **MM1 – Hedgerow and Tree Protection.** All hedgerows and trees to be retained within the proposed development shall be protected during construction in line with standard arboriculturalist best practice (BS5837:2012) or as otherwise directed by a suitably competent arboriculturalist. This will involve the use of protective fencing or other methods appropriate to safeguard the root protection areas of retained trees / hedgerows.

#### Grassland (Adder's Tongue Fern)

- 6.1.3 **MM2 Grassland Protection and Translocation.** The current proposals are in outline and accordingly, precise development areas and associated open space provision remain to be determined at the detailed design stage, however it is clear that the proposals will incorporate substantial areas of open space, to be managed as wildflower grassland, whilst further substantial areas (within the same field) will be retained and enhanced for wildflower grassland in order to provide offsetting measures to address biodiversity net gain requirements (see Chapter 7, below). Nonetheless, in order to reflect the recorded presence of the local interest species Adder's Tongue Fern, it is recommended that a comprehensive mitigation strategy be drawn up at the detailed design stage (which could be suitably secured by way of appropriately worded planning condition at the outline stage), including consideration of translocation of grassland turfs containing concentrations of this species.
- A detailed translocation method statement would be prepared following updated botanical 6.1.4 survey work to confirm the up to date distribution of Adder's Tongue Fern at that time, along with potential soil assessment to determine suitability of proposed receptor areas within the wider open space, if required. Results of translocation exercises can vary considerably, with notable failures attributed to techniques used, climate change and physical disturbance. In regard to the current site, it is noted that the current interest appears to relate to the incidental presence of a single indicator species (Adders Tongue Fern) rather than any wider range of interest species, whilst receptor areas remain substantial, within the same existing field and subject to secure long-term management facilitated by the proposed development. Nonetheless, mitigation work should be undertaken under controlled conditions with experienced machinery operators following a specific method statement and supported by immediate aftercare and long-term management (in line with, and complementary to the identified BNG requirements). In addition, areas of retained and translocated grassland should be appropriately fenced throughout all works in order to prevent access/disturbance by vehicles or personnel, with best management practice (including in accordance with the advice previously issued by the Environment Agency in their Pollution Prevention Guidelines (PPG)<sup>20</sup>, or relevant updated documents) in order to avoid pollution impacts and safeguard the relevant grassland areas.

<sup>&</sup>lt;sup>20</sup> Accessed from: http://webarchive.nationalarchives.gov.uk/20140328084622/http://www.environmentagency. gov.uk/business/topics/pollution/39083.aspx. New guidance will be created following a review of the PPG documents.



**Bats** 

- 6.1.5 **MM3 Felling of Trees Supporting Bat Roosting Potential.** No trees supporting moderate or high bat roosting potential have been identified for removal under the current layout, although should a need for works to these trees be identified at a later stage (e.g. for health and safety purposes) it is recommended a suitably qualified ecologist is consulted to advise on any further survey requirements and mitigation measures. Such measures may include climbing inspections to investigate potential roosting features and soft felling of trees under an ecological watching brief.
- 6.1.6 **MM4 Sensitive Lighting.** Light-spill onto retained and newly created habitat, in particular the retained hedgerows, tree lines and scrub (especially along the south- western boundary), will be minimised in accordance with good practice guidance<sup>21</sup> to reduce potential impacts on light-sensitive bats (and other nocturnal fauna). This may be achieved through the implementation of a sensitively designed lighting strategy, with consideration given to the following key factors:
  - Light exclusion zones ideally no lighting should be used in areas likely to be used by bats. Light exclusion zones or 'dark buffers' may be used to provide interconnected areas free of artificial illumination to allow bats to move around the site;
  - Appropriate luminaire specifications consideration should be given to the type of luminaires used, in particular luminaries should lack UV elements and metal halide and fluorescent sources should be avoided in preference for LED luminaries. A warm white spectrum (ideally <2,700K) should be adopted to reduce the blue light component;
  - Light barriers / screening new planting (e.g. hedgerows and trees) or fences, walls and buildings can be strategically positioned to reduce light spill;
  - Spacing and height of lighting units increasing spacing between lighting units will minimise the area illuminated and allow bats to fly in the dark refuges between lights. Reducing the height of lighting will also help decrease the volume of illuminated space and give bats a chance to fly over lighting units (providing the light does not spill above the vertical plane). Low level lighting options should be considered for any parking areas and pedestrian / cycle routes, e.g. bollard lighting, handrail lighting or LED footpath lighting;
  - Light intensity light intensity (i.e. lux levels) should be kept as low as possible to reduce the overall amount and spread of illumination;
  - **Directionality** to avoid light spill lighting should be directed only to where it is needed. Particular attention should be paid to avoid the upward spread of light so as to minimise trespass and sky glow;
  - Dimming and part-night lighting lighting control management systems can be used, which involves switching off/dimming lights for periods during the night, for example when human activity is generally low (e.g. 12.30 – 5.30am). The use of such control systems may be particularly beneficial during the active bat season

<sup>&</sup>lt;sup>21</sup> Bat Conservation Trust and Institute of Lighting Professionals (2018) 'Guidance Note 08/18: Bats and artificial lighting in the UK'; Stone, E.L. (2013) 'Bats and lighting: Overview of current evidence and mitigation guidance.'; ILP (2011) 'Guidance notes for the reduction of obtrusive light' Institution of Lighting Professionals, GN01:2011.

(April to October). Motion sensors can also be used to limit the time lighting is operational.

<u>Badger</u>

6.1.7 **MM5 – Badger Construction Safeguards.** Mitigation Measures to be implemented (Refer to Confidential Appendix, ref: 6007-01/CBA1).

<u>Hedgehogs</u>

- 6.1.8 **MM6 Hedgehog Safeguards.** In order to safeguard Hedgehogs and other small mammals should they enter the site during construction works, the following measures will be implemented:
  - A watching brief should be maintained for Hedgehog and other small mammals throughout any clearance works;
  - Any piles of material already present on site, particularly vegetation/leaves, etc. and any areas of dense scrub or hedgerows, shall be dismantled/removed by hand and checked for Hedgehog prior to the use of any machinery/disposal;
  - Any trenches left open overnight should be provided with a means of escape, e.g. gently graded ramp or a roughened plank, in order to allow animals to escape should they enter the trench. This is particularly important if the trench fills with water.
  - Any material to be disposed of by burning, particularly waste from vegetation clearance and tree works, should not be left piled on site for more than 24 hours in order to minimise the risk of Hedgehogs occupying the pile. If this cannot be avoided, material should be stored within a container such as a skip to prevent animals from gaining access. Any material which has been stored on the ground overnight should be moved prior to burning to allow a thorough check for any animals which may have been occupying the pile;
  - Any temporarily exposed open pipes or open drains should be blanked off at the end of each working day so as to prevent Hedgehogs gaining access as may happen when contractors are off-site;
  - In the event that an injured Hedgehog is found, the animal should be wrapped carefully in a towel, the British Hedgehog Preservation Society (BHPS) phoned (01584 890 801) and the Hedgehog taken to a local vet immediately;
  - To maintain connectivity throughout the site for Hedgehog and to allow access to suitable foraging habitat contained within residential gardens, small holes (approximately 13cmx13cm) should be created within garden fences or under gates.

#### Nesting Birds

6.1.9 **MM7** – **Timing of Works.** To avoid a potential offence under the relevant legislation, no clearance of suitable vegetation should be undertaken during the bird-nesting season (1<sup>st</sup> March to 31<sup>st</sup> August inclusive). If this is not practicable, any potential nesting habitat to be removed should first be checked by a competent ecologist in order to determine the location of any active nests. Any active nests identified would then need to be cordoned off (minimum 5m buffer) and protected until the end of the nesting season or until the birds have fledged. These checking surveys would need to be carried out <u>no more than three days in advance</u> of vegetation clearance.



## 6.2 **Biodiversity Net Gains**

6.2.1 The National Planning Policy Framework (NPPF) encourages new developments to maximise the opportunities for biodiversity through incorporation of enhancement measures. The proposals present the opportunity to deliver ecological enhancements at the site for the benefit of local biodiversity, thereby making a positive contribution towards the broad objectives of national conservation priorities and the local Biodiversity Action Plan (BAP). The recommendations and enhancements summarised below are considered appropriate given the context of the site and the scale and nature of the proposals. Through implementation of the following ecological enhancements (**EE1** to **EE7**), the opportunity exists for the proposals to deliver a number of biodiversity net gains at the site.

#### Habitat Creation and Management

- 6.2.2 **EE1 New Planting.** It is recommended that where practicable, new planting within the site be comprised of native species of local provenance, including trees and shrubs appropriate to the local area. Suitable species for inclusion within the planting could include native trees such as Oak, Ash, Birch *Betula pendula* and Field Maple, whilst native shrub species of particular benefit would likely include fruit and nut bearing species which would provide additional food for wildlife, such as Blackthorn, Hawthorn, Crab Apple *Malus sylvestris*, Hazel *Corylus avellana* and Elder, along with Willow species *Salix* sp.
- 6.2.3 **EE2 Wildflower Grassland.** It is recommended that areas of wildflower grassland are incorporated within the site such that, in combination with the retained/enhanced habitats and new native landscape planting, opportunities for biodiversity will be maximised under the proposals. Wildflower grassland areas should be managed in the long term for the benefit of biodiversity (with particular reference to key species present, including Adder's Tongue Fern in line with the above considerations).
- 6.2.4 **EE3 Wetland Features.** The proposals incorporate new Sustainable Drainage Systems (SuDS) features, including in particular a new attenuation features at the east of the site. It is understood that the attenuation features can be designed to incorporate permanent standing water (e.g. through over-excavation), which would therefore be designed to be of value to wildlife and include elements such as sinuous margins (to create a variety of conditions and micro-climates which would encourage a broad range of invertebrates to colonise), gently sloping margins (which are favoured by amphibians) and conditions to allow abundant marginal and aquatic vegetation to develop. Creation of such habitats will provide opportunities for a range of wildlife such as amphibians and invertebrates, while also helping to attenuate surface water run-off.
- 6.2.5 **EE4 Veteran Tree Management Plan.** The proposals offer the opportunity to secure and prolong the lifespan and ecological value of the existing veteran (Ash) tree (T17) within hedgerow H5, through the implementation of a suitable veteran tree management plan (informed by arboricultural advice and input) as part of the detailed ongoing landscape management operations at the site.

**Bats** 

6.2.6 **EE5 - Bat Boxes.** It is recommended that a number of bat boxes be incorporated within the proposed development. The provision of bat boxes will provide new roosting opportunities for bats in the area, such as Soprano Pipistrelle Pipistrellus pygmaeus, a national Priority Species. Where architectural design allows, a number of integrated bat boxes / roost features should be incorporated into a proportion of the new buildings. The precise number

and locations of boxes / roost features should be determined by a competent ecologist, post-planning once the relevant final development design details have been approved.

<u>Birds</u>

6.2.7 **EE6 - Bird Boxes**. It is recommended that new bird nesting provision be incorporated under the proposals. In particular, where possible nesting bricks/boxes should be incorporated within the design of new buildings, in order to offer nesting opportunities for declining species such as House Sparrow (Priority Species) and Swift Apus apus (Red Listed species). The precise number and locations of nesting bricks/boxes should be determined by a competent ecologist, post-planning once the relevant final development design details have been approved.

#### **Invertebrates**

6.2.8 **EE7 – Bee Bricks.** It is recommended that a number of bee bricks be incorporated within the proposed development thereby increasing nesting opportunities for declining populations of non-swarming solitary bee populations. Ideally, bee bricks should be located within suitable south-facing walls (where architectural design allows), located at least 1m off the ground. The bricks should be unobstructed by vegetation, though within close vicinity of nectar and pollen sources.

## 7 Biodiversity Net Gain Assessment (BNGA)

## 7.1 **Defra Biodiversity Metric**

- 7.1.1 To quantify the level of biodiversity net gain that can be delivered under the proposed development, the change in biodiversity value resulting from the scheme has been calculated using the Defra Biodiversity Metric 3.1 calculation tool and associated user guide<sup>22</sup>. This takes account of the size, distinctiveness and ecological condition of existing and proposed habitat areas to provide a proxy measure of the present and forecast biodiversity value of a site, and therefore determine the overall change in biodiversity value.
- 7.1.2 Relevant outputs from the completed spreadsheet tool and associated target notes are provided at Appendix 6007-01/5 (a completed copy of the metric calculator tool in MS Excel (.xlsm) format is also provided to accompany this report).
- 7.1.3 Broad habitat areas have been identified based on the survey work undertaken at the site, as described above. Habitat conditions and connectivity scores have then been assigned based on the guidance set out in the Technical Supplement<sup>23</sup>, other appropriate guidance and professional judgement.
- 7.1.4 The post development information used to inform the DEFRA 3.1 Biodiversity Metric Calculation Tool are based on the latest proposed land use parameters Plan (see Appendix 6007-01/1). Given the outline nature of the proposals at this stage, the proposed strategy necessarily provides an indicative assessment of what could be achieved at the site based on the outline parameters, with any detailed information anticipated to be confirmed through reserved matters considerations at the appropriate stage.

## 7.2 Biodiversity Net Gain Assessment

#### Habitat Biodiversity Impact Calculations

- 7.2.1 As set out above, the internal areas of the site are currently dominated by semi-improved grassland, which is clearly subject to high levels of agricultural disturbance on an infrequent basis, with evident mechanical damage and a high proportion of ruderal colonising species present. Other habitats present and affected are extremely small in size and largely associated with the existing highways land along Dukes Meadow Drive (proposed for the new site access).
- 7.2.2 The proposals are for development of the site to provide new residential development of up to 176 dwellings with all matters reserved other than access.
- 7.2.3 On the basis of the considerations and proposals set out (including the assumptions and limitations set out and within the comments in the spreadsheet tool), the DEFRA 3.1 Metric calculator indicates a net habitat biodiversity unit change for the proposals within the site boundary of -2.62 Habitat Units representing a loss of 7.47% within the site boundary. Accordingly, in order to provide compensation for the loss of habitats and ensure biodiversity net gain in line with planning policy requirements, it is proposed to provide

<sup>&</sup>lt;sup>22</sup> Natural England (April 2022) Natural England Joint Publication JP039. Biodiversity Metric 3.1: auditing and accounting for biodiversity – User Guide.

<sup>&</sup>lt;sup>23</sup> Natural England (April 2022) Natural England Joint Publication JP039. The Biodiversity Metric 3.1: auditing and accounting for biodiversity – Technical Supplement



offsetting through enhancement of existing habitats within the wider landholding (as shown at Plan 6007-01/ECO5).

- 7.2.4 The habitats within the wider landholding (blue line land) were subject to survey at the same time as the site boundary and similarly confirmed to support semi-improved grassland with similar condition. In order to provide an overall net gain in excess of 10%, whilst addressing the relevant trading rules within the metric tool, an indicative area of approximately 2.1ha grassland is proposed for enhancement, as indicated at Plan 6007-01/ECO5 (albeit given the outline nature of the application and associated indicative nature of the masterplan, the precise area and measures can be further confirmed at the reserved matters/detailed design stage if required).
- 7.2.5 Nonetheless, it is clear that suitable areas are available for ecological enhancement within the control of the applicant, which can be enhanced and managed for the benefit of biodiversity. Accordingly, on the basis of the above provision, based on the outline scheme and assumptions within the Defra 3.1 metric, this would enable the proposals to result in a calculated increase of 7.22 habitat units (representing a calculated net gain of 20.58%, whilst addressing the relevant trading rules within the calculator.

#### Hedgerow Impact Assessment

7.2.6 The proposals incorporate the retention of the majority of the existing site boundary hedgerows (with the only exception being minor losses to facilitate access to the site), whilst the opportunity exists for substantial new native hedgerows to be incorporated into the wider open space, representing enhancement measures in this regard. Accordingly, on the basis of the proposals (see Appendix 6007-01/1) and associated assumptions in terms of hedgerow provision (including as set out within the comments in the spreadsheet tool), the DEFRA 3.1 Metric calculator indicates a net hedgerow biodiversity unit change for the proposals within the site boundary of +1.24 Habitat Units representing an increase of 14.82%.

#### **River Impact Assessment**

7.2.7 The site does not include any watercourses (river/stream features) and as such, no score is generated for this section of the metric calculations and no further consideration is relevant in regard to this section.

#### **Overall BIA Consideration**

7.2.8 Overall, on the basis of the above considerations and proposed landscape information prepared in respect of the proposed development at the site, the results of the consideration with the Defra Biodiversity Metric 3.1 are summarised below at Table 7.1, below, whilst copies of the relevant sections of the completed BIA tool are provided at Appendix 6007-01/5.

**Table 7.1.** Summary results of consideration using Defra Biodiversity Metric 3.1 based on the current proposed land use parameters and associated landscape strategy plan (see Appendix 6007-01/1 and 6007-01/5).

Unit type	under the		Identified net unit change	Identified net % change
Habitat units	35.10 units onsite 8.40 units offsite	32.48 units onsite 18.25 units offsite	+7.22 units overall change	+20.58 %
Hedgerow units	8.40 units	9.64 units	+1.24 units	+14.82%



<b>River units</b>	N/A – No Rivers or Streams present/affected

- 7.2.9 A number of faunal enhancements are proposed under the scheme, which are anticipated to provide additional gains for biodiversity. These faunal enhancements include the provision of bat and bird boxes, as set out above. However, it is not possible to quantify faunal enhancements with the DEFRA 3.1 Biodiversity Impact Assessment Calculator and these are therefore additional to the calculated Net Gain figure using the tool.
- 7.2.10 On this basis (and subject to the successful implementation of the proposed scheme, including offsetting provision within the wider land under the applicant's control and long term suitable management), the proposals will result in a calculated net gain in biodiversity (representing greater than 10% net gain based on the calculator tool and in line with local planning policy requirements). The proposals would therefore appear to be in line with relevant planning policy requirements in regard to biodiversity net gain.

## 8 Conclusions

- 8.1 Aspect Ecology has carried out an Ecological Appraisal of the proposed development, based on the results of a desktop study, Phase 1 habitat survey and a number of detailed protected species surveys, including in respect of bats, Badger and common reptiles.
- 8.2 The available information confirms that no statutory or non-statutory nature conservation designations are present within or adjacent to the site, and none of the designations within the surrounding area are likely to be adversely affected by the proposals.
- 8.3 The extended Phase 1 habitat survey has established that the site is dominated by habitats not considered to be of ecological importance, whilst the proposals have sought to retain those features identified to be of value. Where it has not been practicable to avoid loss of habitats, mitigation and compensation measures have been proposed to offset losses, in conjunction with the landscape proposals. A number of specific measures and recommendations are set out in order to ensure the suitable protection of the retained habitats and associated fauna, whilst where possible it is recommended that any new planting at the site incorporate native species for the benefit of local wildlife, in combination with the enhancement and management of the retained features of value.
- 8.4 The habitats within the site support several protected species, including species protected under both national and European legislation. Accordingly, a number of mitigation measures have been proposed to minimise the risk of harm to protected species (including Badger, bats ad breeding birds), with compensatory measures and enhancements proposed, where appropriate, in order to maintain the conservation status of local populations.
- 8.5 In conclusion, the proposals have sought to minimise impacts and subject to the implementation of appropriate avoidance, mitigation and compensation measures, it is considered unlikely that the proposals will result in significant harm to biodiversity. On the contrary, the opportunity exists to provide biodiversity net gains as part of the proposals.



# Plans


## Plan 6007-01/ECO1:

Site Location



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## Plan 6007-01/ECO2:

Ecological Designations



Proposed Cherwell District Wildlife Site

2km Buffer (only non-statutory designation within this buffer as shown)

DRAW INTEND.

HCV

nitt

6007-01/ECO2 D/JP

September 2022



## Plan 6007-01/ECO3:

Habitats and Ecological Features



Map data /02022 Google, Aspect Ecology Ltd, West Court, Hardwick Business Park, Noral Way, Banbury, Oxfordshire, OX16 2AF.

#### Key:



Proposed Development Site Boundary

Additional Land Within the Same Ownership

Semi-improved Grassland

Mown Grassland



Mixed scrub

Hedgerow



Tree

Trees with Identified Bat Roosting Potential (refer to text for details)



Aspect Ecology Limited - West Court - Hardwick Business Park Notal Way - Ilanbury - Oxfordshire - 0x16 2AF 01295 279721 - info@aspect-ecology.com - www.aspect-ecology.com

Land at Hanwell Fields, Banbury

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Habitats and Ecological Features

6007-01/ECO3

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September 2022



## Plan 6007-01/ECO4:

Reptile Survey Plan



Map data /02022 Google, Aspect Ecology Ltd, West Court, Hardwick Business Park, Noral Way, Banbury, Oxfordshire, OX16 2AF.

	Proposed Development Site Bounda	Iry
	Additional Land Within the Same Ownership	
	Reptile Transect Location	
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	Reptile Survey Plan	Ξ
		aideant.
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## Plan 6007-01/ECO5:

Indicative Location of Offsite Biodiversity Net Gain Provision



Map data @2022 Google, Aspect Ecology Ltd, West Court, Hardwick Business Park, Noral Way, Banbury, Oxfordshire, OX16 2AF.

Key:

Proposed Development Site Boundary

Additional Land Under Control of the Applicant Indicative location of proposed Biodiversity Net Gain provision relating to permitted phase 1 (0.72ha) Indicative location of proposed Biodiversity Net Gain provision relating to phase 2 (2.1ha)



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Land at Hanwell Fields, Banbury

Location of Proposed Biodiversity Net Gain Provision

6007-01/ECO5

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September 2022



Appendices



## Appendix 6007-01/1:

Proposed Landscape Strategy Plan



NOTES Based uppor the Ori Arged Landscape F Lorent 10024553 Copyright reserved Om Key:

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BS JM DRAWN CHK'D

aspect landscape planning

Update to late NOTE

#### TITLE Hanwell, Banbury Landscape Strategy Plan CLIENT

Manor Oak Homes

A 07.09.22 REV DATE REVISIONS

AUG 2022	SB	CHK'D BW
D3		
	AUG 2022	33



## Appendix 6007-01/2:

Desktop Study Data



Site Check Report Report generated on Fri Sep 23 2022 You selected the location: Centroid Grid Ref: SP44734273 The following features have been found in your search area:

Sites of Special Scientific Interest (England) - points

Name Reference Natural England Contact Natural England Phone Number Hectares Citation Hyperlink

Sites of Special Scientific Interest (England)

Name Reference Natural England Contact Natural England Phone Number Hectares Citation Hyperlink

Local Nature Reserves (England) - points No Features found

Local Nature Reserves (England) No Features found

National Nature Reserves (England) - points No Features found

National Nature Reserves (England) No Features found

Biosphere Reserves (England) - points No Features found

Biosphere Reserves (England) No Features found Neithrop Fields Cutting SSSI 1000768 Conservation Delivery Team 0845 600 3078 1.44 1002934 http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1002934

Neithrop Fields Cutting SSSI 1000768 Conservation Delivery Team 0845 600 3078 1.44 1002934 http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1002934 Site Check Report Report generated on Fri Sep 23 2022 You selected the location: Centroid Grid Ref: SP44654272 The following features have been found in your search area:

SSSI Impact Risk Zones - to assess planning applications for likely impacts on SSSIs/SACs/SPAs & Ramsar sites (England) No Features found

Site Check Report Report generated on Fri Sep 23 2022 You selected the location: Centroid Grid Ref: SP44754272 The following features have been found in your search area:

Ramsar Sites (England) - points No Features found

Ramsar Sites (England) No Features found

Proposed Ramsar Sites (England) - points No Features found

Proposed Ramsar Sites (England) No Features found

Special Areas of Conservation (England) - points No Features found

Special Areas of Conservation (England) No Features found

Possible Special Areas of Conservation (England) - points No Features found

Possible Special Areas of Conservation (England) No Features found

Special Protection Areas (England) - points No Features found

Special Protection Areas (England) No Features found

Potential Special Protection Areas (England) - points No Features found

Potential Special Protection Areas (England) No Features found

## MAGîC

#### 6007-01 MAGIC Habitats





## Appendix 6007-01/3:

Evaluation Methodology

## **Evaluation Methodology**

 The evaluation of ecological features and resources is based on professional judgement whilst also drawing on the latest available industry guidance and research. The approach taken in this report is based on that described by the Chartered Institute of Ecology and Environmental Management (CIEEM) 'Guidelines for Ecological Impact Assessment in the UK and Ireland' (2018)<sup>1</sup>.

#### Importance of Ecological Features

- 2. Ecological features within the site/study area have been evaluated in terms of whether they qualify as 'important ecological features'. In this regard, CIEEM guidance states that *"it is not necessary to carry out detailed assessment of features that are sufficiently widespread, unthreatened and resilient to project impacts and will remain viable and sustainable".*
- 3. Various characteristics contribute to the importance of ecological features, including:
  - Naturalness;
  - Animal or plant species, sub-species or varieties that are rare or uncommon, either internationally, nationally or more locally, including those that may be seasonally transient;
  - Ecosystems and their component parts, which provide the habitats required by important species, populations and/or assemblages;
  - Endemic species or locally distinct sub-populations of a species;
  - Habitat diversity;
  - Habitat connectivity and/or synergistic associations;
  - Habitats and species in decline;
  - Rich assemblages of plants and animals;
  - Large populations of species or concentrations of species considered uncommon or threatened in a wider context;
  - Plant communities (and their associated animals) that are considered to be typical of valued natural/semi-natural vegetation types, including examples of naturally speciespoor communities; and
  - Species on the edge of their range, particularly where their distribution is changing as a result of global trends and climate change.
- 4. As an objective starting point for identifying important ecological features, European, national and local governments have identified sites, habitats and species which form a key focus for biodiversity conservation in the UK, supported by policy and legislation. These are summarised by CIEEM guidance as follows:

#### Designated Sites

 Statutory sites designated or classified under international conventions or European legislation, for example World Heritage Sites, Biosphere Reserves, Wetlands of International Importance (Ramsar sites), Special Areas of Conservation (SAC), Special Protection Areas (SPA);

<sup>&</sup>lt;sup>1</sup> CIEEM (2018) 'Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine', Chartered Institute of Ecology and Environmental Management, Winchester



- Statutory sites designated under national legislation, for example Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR) and Local Nature Reserves (LNR);
- Locally designated wildlife sites, e.g. Local Wildlife Sites (LWS).

#### Biodiversity Lists

- Habitats and species of principal importance for the conservation of biodiversity in England and Wales (largely drawn from UK BAP priority habitats and priority species), often referred to simply as Priority Habitats / Species;
- Local BAP priority species and habitats.

#### Red Listed, Rare, Legally Protected Species

- Species of conservation concern, Red Data Book (RDB) species;
- Birds of Conservation Concern;
- Nationally rare and nationally scarce species;
- Legally protected species.
- 5. In addition to this list, other features may be considered to be of importance on the basis of local rarity, where they enable effective conservation of other important features, or play a key functional role in the landscape.

#### Assigning Level of Importance

- 6. The importance of an ecological feature should then be considered within a defined geographical context. Based on CIEEM guidance, the following frame of reference is used:
  - International (European);
  - National;
  - Regional;
  - County;
  - District;
  - Local (e.g. Parish or Neighbourhood);
  - Site (not of importance beyond the immediate context of the site).
- 7. Features of 'local' importance are those considered to be below a district level of importance, but are considered to appreciably enrich the nature conservation resource or are of elevated importance beyond the context of the site.
- 8. Where features are identified as 'important' based on the list of key sites, habitats and species set out above, but are very limited in extent or quality (in terms of habitat resource or species population) and do not appreciably contribute to the biodiversity interest beyond the context of the site, they are considered to be of 'site' importance.
- 9. In terms of assigning the level of importance, the following considerations are relevant:



#### Designated Sites

10. For designated sites, importance should reflect the geographical context of the designation (e.g. SAC/SPA/Ramsar sites are designated at the international level whereas SSSIs are designated at the national level). Consideration should be given to multiple designations as appropriate (where an area is subject to differing levels of nature conservation designations).

Habitats

- 11. In certain cases, the value of a habitat can be measured against known selection criteria, e.g. SAC selection criteria, 'Guidelines for the selection of biological SSSIs' and the Hedgerows Regulations 1997. However, for the majority of commonly encountered sites, the most relevant habitat evaluation will be at a more localised level and based on relevant factors such as antiquity, size, species-diversity, potential, naturalness, rarity, fragility and typicalness (Ratcliffe, 1977). The ability to restore or re-create the habitat is also an important consideration, for example in the case of ancient woodland.
- 12. Whether habitats are listed as priorities for conservation at a national level in accordance with Sections 41 and 42 of the Natural Environment and Rural Communities Act (NERC) 2006, so called 'Habitats of Principal Importance' or 'Priority Habitats', or within regional or local Biodiversity Action Plans (BAPs) is also relevant, albeit the listing of a particular habitat under a BAP does not in itself imply any specific level of importance.
- 13. Habitat inventories (such as habitat mapping on the MAGIC database) or information relating to the status of particular habitats within a district, county or region can also assist in determining the appropriate scale at which a habitat is of importance.

Species

- 14. Deciding the importance of species populations should make use of existing criteria where available. For example, there are established criteria for defining nationally and internationally important populations of waterfowl. The scale within which importance is determined could also relate to a particular population, e.g. the breeding population of common toads within a suite of ponds or an otter population within a catchment.
- 15. When determining the importance of a species population, contextual information about distribution and abundance is fundamental, including trends based on historical records. For example, a species could be considered particularly important if it is rare and its population is in decline. With respect to rarity, this can apply across the geographic frame of reference and particular regard is given to populations where the UK holds a large or significant proportion of the international population of a species.
- 16. Whether species are listed as priorities for conservation at a national level in accordance with Sections 41 and 42 of the Natural Environment and Rural Communities Act (NERC) 2006, so called 'Species of Principal Importance' or 'Priority Species', or within regional or local Biodiversity Action Plans (BAPs) is also relevant, albeit the listing of a particular species under a BAP does not in itself imply any specific level of importance.
- 17. Species populations should also be considered in terms of the potential zone of influence of the proposals, i.e. if the entire species population within the site and surrounding area were to be affected by the proposed development, would this be of significance at a local, district, county or wider scale? This should also consider the foraging and territory ranges of individual species (e.g. bats roosting some distance from site may forage within site whereas other species such as invertebrates may be more sedentary).



## Appendix 6007-01/4:

Legislation Summary

#### LEGISLATION SUMMARY

- 1. In England and Wales primary legislation is made by the UK Parliament, and in Scotland by the Scottish Parliament, in the form of Acts. The main piece of legislation relating to nature conservation in the UK is the Wildlife and Countryside Act 1981 (as amended).
- 2. Acts of Parliament confer powers on Ministers to make more detailed orders, rules or regulations by means of secondary legislation in the form of statutory instruments. Statutory instruments are used to provide the necessary detail that would be too complex to include in an Act itself<sup>1</sup>. The provisions of an Act of Parliament can also be enforced, amended or updated by secondary legislation.
- 3. In summary, the key pieces of legislation relating to nature conservation in the UK are:
  - Wildlife and Countryside Act 1981 (as amended)
  - Protection of Badgers Act 1992
  - Hedgerows Regulations 1997
  - Countryside and Rights of Way (CRoW) Act for England and Wales 2000
  - Natural Environment and Rural Communities Act 2006
  - Conservation of Habitats and Species Regulations 2017
- 4. A brief summary of the relevant legislation is provided below. The original Acts and instruments should be referred to for the full and most up to date text of the legislation.
- 5. **Wildlife and Countryside Act 1981 (as amended)**. The WCA Act provides for the notification and confirmation of Sites of Special Scientific Interest (SSSIs) identified for their flora, fauna, geological or physiographical features. The Act contains strict measures for the protection and management of SSSIs.
- 6. The Act also refers to the treatment of UK wildlife including protected species listed under Schedules 1 (birds), 5 (mammals, herpetofauna, fish, invertebrates) and 8 (plants).
- 7. Under Section 1(1) of the Act, all wild birds are protected such that is an offence to intentionally:
  - Kill, injure or take any wild bird;
  - Take, damage or destroy the nest of any wild bird whilst in use\* or being built;
  - Take or destroy an egg of any wild bird.
  - \* The nests of birds that re-use their nests as listed under Schedule ZA1, e.g. Golden Eagle, are protected against taking, damage or destruction irrespective of whether they are in use or not.
- 8. Offences in respect of Schedule 1 birds are subject to special, i.e. higher, penalties. Schedule 1 birds also receive greater protection such that it is an offence to intentionally or recklessly:
  - Disturb any wild bird included in Schedule 1 while it is building a nest or while it is in, on or near a nest containing eggs or young;
  - Disturb dependent young of such a bird.

<sup>&</sup>lt;sup>1</sup> http://www.parliament.uk/business/bills-and-legislation/secondary-legislation/statutory-instruments/



- 9. Under Section 9(1) of the Act, it is an offence to:
  - Intentionally kill, injure or take any wild animal included in Schedule 5.
- 10. In addition, under Section 9(4) it is an offence to intentionally or recklessly:
  - Obstruct access to, any structure or place which any wild animal included in Schedule 5 uses for shelter or protection; or
  - Disturb any wild animal included in Schedule 5 while occupying a structure or place which it uses for that purpose.
- 11. Under Section 13(1) it is an offence:
  - To intentionally pick, uproot or destroy any wild plant listed in Schedule 8; or
  - Unless the authorised person, to intentionally uproot any wild plant not included in Schedule 8.
- 12. The Act also contains measures (S.14) for preventing the establishment of non-native species that may be detrimental to native wildlife, prohibiting the introduction into the wild of animals (releases or allows to escape) and plants (plants or causes to grow) listed under Schedule 9.
- 13. **Protection of Badgers Act 1992.** The Act aims to protect the species from persecution, rather than being a response to an unfavourable conservation status, as the species is in fact common over most of Britain. It should be noted that the legislation is not intended to prevent properly authorised development. Under the Act it is an offence to:
  - Wilfully kill, injure, take, possess or cruelly ill-treat\* a Badger, or attempt to do so;
  - To intentionally or recklessly interfere with a sett<sup>#</sup> (this includes disturbing Badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access to it).
  - \* the intentional elimination of sufficient foraging area to support a known social group of Badgers may, in certain circumstances, be construed as an offence
  - # A sett is defined as "any structure or place which displays signs indicating current use by a Badger". Natural England advice (June 2009) is that a sett is protected so long as such signs remain present, which in practice could potentially be for some time after the last actual occupation by Badger. Interference with a sett includes blocking tunnels or damaging the sett in any way
- 14. Licences can be obtained from the Statutory Nature Conservation Organisation (SNCO) for development activities that would otherwise be unlawful under the legislation, provided there is suitable justification. The SNCO for England is Natural England.
- 15. **Hedgerows Regulations 1997.** 'Important' hedgerows (as defined by the Regulations) are protected from removal (up-rooting or otherwise destroying). Various criteria specified in the Regulations are employed to identify 'important' hedgerows for wildlife, landscape or historical reasons.
- 16. **Countryside and Rights of Way (CRoW) Act for England and Wales 2000.** The CRoW Act provides increased measures for the management and protection of SSSIs and strengthens wildlife enforcement legislation. Schedule 12 of the Act amends the species provisions of the WCA 1981, strengthening the legal protection for threatened species. The Act also introduced a duty on Government to have regard to the conservation of biodiversity and maintain lists of species and habitats for which conservation steps should be taken or promoted, in accordance with the Convention on Biological Diversity.

- 17. **Natural Environment and Rural Communities Act 2006.** Section 41 of the NERC Act requires the Secretary of State to publish a list of habitats and species that are of principal importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as local planning authorities, in implementing their duty under Section 40 of the Act, to have regard to the conservation of biodiversity in England, when exercising their normal functions. 56 habitats and 943 species of principal importance are included on the S41 list. These are all the habitats and species in England that were identified as requiring action in the UK Biodiversity Action Plan (BAP).
- 18. **Conservation of Habitats and Species Regulations 2017 (as amended).** The Regulations enact the European Union's Habitats Directive (92/43/EEC) in the UK. The Habitats Directive was designed to contribute to the maintenance of biodiversity within member states through the conservation of sites, known in the UK as Special Areas of Conservation (SACs), containing habitats and species selected as being of EC importance (as listed in Annexes I and II of the Habitats Directive respectively). Member states are required to take measures to maintain or restore these natural and semi-natural habitats and wild species at a favourable conservation status.
- 19. The Regulations also require the compilation and maintenance of a register of European sites, to include SACs and Special Protection Areas (SPAs)<sup>2</sup> classified under Council Directive 79/409/EEC on the Conservation of Wild Birds (the Birds Directive). These sites constitute the Natura 2000 network. The Regulations impose restrictions on planning decisions likely to significantly affect SPAs or SACs.
- 20. The Regulations also provide protection to European Protected Species of animals that largely overlaps with the WCA 1981, albeit the provisions are generally stricter. Under Regulation 43 it is an offence, *inter alia*, to:
  - Deliberately capture, injure or kill any wild animal of a European Protected Species;
  - Deliberately disturb any wild animals of any such species, including in particular any disturbance likely to impair their ability to survive, to breed or reproduce, to rear or nurture their young, to hibernate or migrate, or which is likely to affect significantly their local distribution or abundance;
  - Deliberately take or destroy the eggs of such an animal;
  - Damage or destroy a breeding site or resting place of such an animal.
- 21. Similar protection is afforded to European Protected Species of plants, as detailed under Regulation 47.
- 22. The Regulations do provide a licensing system that permits otherwise illegal activities in relation to European Protected Species, subject to certain tests being fulfilled.

<sup>&</sup>lt;sup>2</sup> Special Protection Areas (SPAs) are protected sites classified in accordance with Article 4 of the EC Directive on the Conservation of Wild Birds (79/409/EEC) (aka the Birds Directive), which came into force in April 1979. SPAs are classified for rare and vulnerable birds (as listed on Annex I of the Directive), and for regularly occurring migratory species.

## Appendix 6007-01/5:

Relevant output from the Biodiversity Metric 3.1 Calculation Tool



Map data /02022 Google, Aspect Ecology Ltd, West Court, Hardwick Business Park, Noral Way, Banbury, Oxfordshire, OX16 2AF.

	Proposed Development Site Boundar
	Additional Land Within the Same Ownership
	Other Neutral Grassland (8.74ha)
	Modified Grassland (0.04ha)
	Mixed Scrub (0.01ha)
۲.	Native Hedgerow (0.8km)



v	-	
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Proposed Development Site Boundary

Additional Land Within the Same Ownership Wider Open Space(Other Neutral Grassland & Native Scrub) (1.82ha) Amenity Open Space (Modified Grassland) (0.83ha) Amenity Grassland (Modified Grassland) (0.11ha) Other Neutral Grassland (Balancing Pond) (0.65ha)

Vegetated Garden (1.9ha)

Native Scrub within Residential Areas (0.24ha)

Amenity Play (Hardstanding) (0.15ha)

Hardstanding (1.93ha)

Building (1.16ha)

Retained Native Hedgerow (0.74km)

Indicative New Species Rich Hedgerow with Trees (0.21km)

New Ornamental Hedgerow (0.41km)



Proposed Tree Planting (30)



Aspect Ecology Limited - West Court - Hardwick Business Park Noral Way - Ilanbury - Difordshire - 0X16 2AF 01295 279721 - info@aspect-ecology.com - www.aspect-ecology.com

Land at Hanwell Fields, Banbury

Pre-development Habitat Measurements

N

6007-01/BNGA2

F/JP ==

DEBIANN NGL

September 2022

### HABITAT CONDITION ASSESSMENT MATRIX

PROJECT NAME: Hanwell Fields, Banbury (Phase 2) PROJECT NUMBER: 1006007-01

Habitat type/criteria			Feature I	Reference		
Grassland (low distinctiveness)						
1 6-8 species per m2	Fail					
2 Varied sward height (>20% less than 7cm, >20% more than 7cm)	Fail					
3 Less than 20% scrub	Pass					
4 Less than 5% subject to physical damage (excessive poaching, machinery use/storage etc)	Pass					
5 Cover of bare ground between 1 and 10%	Pass					
6 Less than 20% bracken	Pass					
7 Absence of Sch9 invasive species	Pass					
Condition	Poor					
Grassland (medium distinctiveness and above)						
1 Closely matches characteristics of specific habitat type	Fail					
2 Varied sward height (>20% less than 7cm, >20% more than 7cm)	Pass					
3 Cover of bare ground between 1 and 5%	Fail					
4 Less than 20% bracken and 5% scrub (including Bramble)	Fail					
_ Absence of Sch9 invasive species and less than 5% combined undesirable species (C Thistle, Sp Thistle, Docks, Nettle, C Buttercup, G Plantain,	- ·I					
<sup>5</sup> W Clover, Cow Parsley) or physical damage (excessive poaching, machinery use/storage etc)	Fail					
6 Non-acid grasslands only: Greater than 9 species per m2	Pass					
Condition	Poor					
Traditional orchard						
1 Presence of ancient and/or veteran trees						
2 Less than 5% of trees smothered by scrub, less than 10% scrub ground cover						
3 Evidence of formative and/or restorative pruning to maintain longevity of trees						
4 Presence of standing and/or fallen dead wood						
5 At least 95% of trees free from damage caused by humans or animals (e.g. browsing, bark stripping, rubbing)						
6 Sward height is varied (between 5-30cm) and small patches of bare ground present, up to 10% cover of tall herb vegetation						
7 Grassland species richness equivalent to medium, high or very high distinctiveness grassland (more than 9 species per m2)						
8 Absence of Sch9 invasive species and less than 10% undesirable species (C Thistle, Sp Thistle, Docks, Nettle)						
Condition						
Pond						
1 Good water quality with clear water and no obvious signs of pollution. Turbidity acceptable if grazed by livestock.						
2 Semi-natural habitat (moderate distinctiveness or above) at least 10m from pond edge.						
3 Less than 10% duckweed or filamentous algae						
4 Pond not artifically connected to other waterbodies						
5 Pond water levels able to fluctuate naturally throughout year - no obvious dams, pumps or pipework						
6 Absence of non-native plant and animal species						
7 Pond is not artifically stocked with fish. If naturally contains fish is a native fish assemablage at low densities.						
8 Non-woodland ponds only: Emergent, submerged or floating plants cover at least 50% of pond area that is less than 3m deep						
9 Non-woodland ponds only: Less than 50% shaded by woody bankside species						
Condition						

# aspect ecology

Scr	ub			
1	Habitat is representative of UKHab description. At least 3 woody species, with no one species more than 75% cover (except Juniper, Sea Buckthorn and Box)	Pass		
2	Good age range with seedlings, young shrubs and mature shrubs present	Pass		ſ
3	Absence of Sch9 invasive species and less than 5% undesirable species (C Thistle, Nettle, Cherry Laurel, Snowberry, Buddleia, Cotoneaster, Spanish Bluebell)	Pass		Ī
4	Scrub has well developed edge with scattered scrub and tall grassland/herbs present between scrub and adjacent habitats	Fail		ſ
5	Clearings, glades or rides present providing sheltered edges	Fail		Γ
Со	ndition	Moderate		
				Γ
Wc	odland (assign scores of 3/2/1 accordingly)			
1	Three/two/one age classes present			
2	No significant browsing/browsing across no more than 40% of woodland/browsing across more than 40% of woodland			
3	No invasive species/Rhododendron or Laurel absent, other species less than 10% cover/Rhododendron or Laurel present, other species more than 10% cover			
4	5+ native tree or species/3-4 native tree or shrub species/up to 2 native tree or shrub species (per 10m radius, across woodland parcel)			
5	More than 80% canopy trees and understorey shrubs are native/50-80% are native/less than 50% are native			
6	Less than 20% temporary open space, or 10-20% temporary open space if woodland over 10ha/21-40% temporary open space/more than 40% temporary open space			
7	Three/one-two/none classes of regeneration present - trees 4-7cm dbh; saplings/seedlings; advanced coppice regrowth			
8	Tree mortality less than 10%, no pests, diseases or crown dieback/11-25% mortality, low risk pests, diseases or crown dieback/more than 25% mortality, high risk pests or diseases			Ī
9	Ground flora - AWI present/recognisable NVC plant community present/no recognisable NVC community			
10	Woodland vertical structure (across all survey plots) - three or more storeys/two storeys/one or less storey			
11	2+ veteran trees per ha/1 veteran tree per ha/no veteran trees			
12	50% of survey plots have standing deadwood, large dead branches, stems and stumps/25-50% deadwood/less than 25% deadwood			Ī
13	No nutrient enrichment or damaged ground/less than 1ha nutrient enrichment or 20% damaged ground/more than 1ha nutrient enrichment or 20% damaged ground			ſ
Со	Indition			t
				t
Wc	od pasture and parkland			t
1	Presence of ancient and/or veteran trees			f
2	At least three age classes present, including at least one of mature, late mature and ancient/veteran			t
3	80% of ancient and veteran trees have standing deadwood, large dead branches, stems and stumps associated with them			ſ
4	Little or no evidence of impact on tree health by anthropogenic activities, livestock, wild animals, pests or diseases (e.g. no poaching, nettles, ground compaction, grazing damage)			ſ
5	Ground cover comprises semi-natural grassland or heathland			ł
6	Grassland - varied sward height (>20% less than 7cm, >20% more than 7cm) / heathland - pioneer heather 10-40%, building/mature heather -			t
	20-80%, degenerate heather <30% and dead heather <10%			ļ
Со	ndition			


	Project details
Planning authority:	Cherwell District Council
Project name:	Land north of Duke's Meadow Drive (Phase 2), Banbury
Applicant:	Manor Oak Homes
Application type:	Outline
Planning application reference:	
Assessor:	Aspect Ecology (CL)
Reviewer:	
Metric version:	Defra 3.1 (dv2)
Assessment date:	23/09/2022
Planning authority reviewer:	

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The Bio		ric 3.1 - Calculation To t page	bol
	Project details		
Planning authority:	Cł	nerwell District Council	Instructions
Project name:	Land north of Duk	e's Meadow Drive (Phase 2), Banbury	
Applicant:		Manor Oak Homes	
Application type:		Outline	Main menu
Planning application reference:			
Assessor:		Aspect Ecology (CL)	
Reviewer: Metric version:		Defra 3.1 (dv2)	
Assessment date:		23/09/2022	Results
Planning authority reviewer:			
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Off-site baseline map	Insert	Off-site post intervention map	

Land north of Duke's Meadow Drive (Phase 2), Ban Headline Results

Return to results menu

	Habitat units	35.10
On-site baseline	Hedgerow units	8.40
	River units	0.00
	Habitat units	32.48
On-site post-intervention	Hedgerow units	9.64
(Including habitat retention, creation & enhancement)	River units	0.00
	Habitat units	-7.47%
On-site net % change	Hedgerow units	14.82%
(Including habitat retention, creation & enhancement)	River units	0.00%
	Habitat units	8.40
Off-site baseline	Hedgerow units	0.00
	River units	0.00
	Habitat units	18.25
Off-site post-intervention	Hedgerow units	0.00
(Including habitat retention, creation & enhancement)	River units	0.00
	Habitat units	7.22
Total net unit change	Hedgerow units	1.24
(including all on-site & off-site habitat retention, creation & enhancement)	River units	0.00
	Habitat units	20.58%
Total on-site net % change plus off-site surplus	Hedgerow units	14.82%
(including all on-site & off-site habitat retention, creation & enhancement)	River units	0.00%
Trading rules Satisfied?	Ye	es √



Land north of Duke's Meadow Drive (Phase 2), Banbury Detailed Results		n to results nenu	
Summary Figures			
Net project biodiversity units (including all on-site & off-site habitat retention/creati	on)	Habitat units Hedgerow units River units	7.22 1.24 0.00
Total project biodiversity % char (including all On-site & Off-site Habitat Creation + Retained Hab	itats)	Habitat units Hedgerow units River units	20.58% 14.82% 0.00%
Combined habitat ret	ention and enhancen	nent	
	Habitats	Hedgerows	Rivers
Total on-site and off-site baseline area / length	10.88	0.78	0.00
Total on-site and off-site baseline units	43.50	8.40	0.00
Total on gite and off gite bageline area (length retained	0.00	0.74	
Total on-site and off-site baseline area / length retained Total on-site and off-site baseline units retained	0.00	0.74	0.00
	0.00	1.92	0.00
Area / length proposed for enhancement	2.10	0.00	0.00
Area / length proposed for enhancement Baseline units proposed for enhancement	8.40	0.00	0.00
		0.00	
Total on-site and off-site baseline area / length lost	8.78	0.04	0.00
Total on-site and off-site baseline units lost	35.10	0.48	0.00

Area habitats

Presson of the second s	site change by broad habitat type         Baseline       Post development on site       Onsite Change	Combined area lost by distinctiveness band	% Area lost by distinctiveness category	On-site and off-site habitat retention by category area (hectares)	On-site and off-site habitat retention category biodiversity units 40.00
Habitat group	Existing area Existing value Proposed area Proposed Area Onsite U value Change		= V.High = High	10.00 9.00 8.00	35.10 30.00
Cropland Grassland Heathland and shrub Lakes Sparsely vegetated land Urban Wetland Woodland and forest Intertidal sediment Coastal saltmarsh Rocky shore Coastal lagoons Intertidal Hard Structures	0.00         0.00         0.00         0.00         0.00         0.00           8.77         35.02         3.41         26.83         -5.36         -8.19           0.01         0.08         0.24         1.61         0.23         1.53           0.00         0.00         0.00         0.00         0.00         0.00           0.00         0.00         0.00         0.00         0.00         0.00           0.00         0.00         0.00         0.00         0.00         0.00           0.00         0.00         0.00         0.00         0.00         0.00           0.00         0.00         0.00         0.00         0.00         0.00           0.00         0.00         0.00         0.00         0.00         0.00           0.00         0.00         0.00         0.00         0.00         0.00           0.00         0.00         0.00         0.00         0.00         0.00           0.00         0.00         0.00         0.00         0.00         0.00           0.00         0.00         0.00         0.00         0.00         0.00           0.00         0.00         0.00	V.High0High0Medium8.75Low0.03V.Low0	<ul> <li>Medium</li> <li>V.Low</li> </ul>	7.00 6.00 5.00 4.00 3.00 2.10 2.00 1.00 0.00 Total on-site and off-site baseline area / length retained Area / length proposed for Total on-site and off-site baseline area / length retained Area / length proposed for baseline area / length lost	25.00 20.00 15.00 10.00 5.00 0.00 0.00 Total on-site and off-site baseline units retained Baseline units proposed for Total on-site and off-site baseline units retained baseline units lost
Off	site change by broad habitat type Baseline Post development Off-site Off-site Change	40.00 35.00	itat group	On site area chang 10.00 9.00	ge by habitat group
Habitat group Cropland Grassland Grassland Heathland and shrub Lakes Sparsely vegetated land Urban Urban Wetland Wetland Modland and forest Intertidal sediment Coastal saltmarsh Rocky shore Coastal lagoons	Image: book water         Image: book water	it 30.00 25.00 20.00 15.00 10.00 5.00 0.00 Cropland Grassland Heathland and Lakes Sparsely Urban Weth	tland Woodland and Intertidal Coastal Rocky shore Coastal lagoons Intertidal Hard forest sediment saltmarsh Structures	8.00 7.00 6.00 5.00 4.00 3.00 2.00 1.00 Cropland Grassland Heathland and Lakes Sparsely Urban of Cropland Grassland Heathland and Shrub Lakes Sparsely Urban Existing area Propose	Wetland Woodland and Intertidal Coastal saltmarsh Rocky shore Coastal lagoons Intertidal Hard Structures ed area Off-site proposed area
Intertidal Hard Structures Combined on s Habitat group	0.00       0.00       0.00       0.00       0.00       0.00         site and off site change by broad habitat type         Site and off-site post development       Combined change         Combined feature         Existing area       Existing value       Combined proposed       Proposed       Proposed	Combined Biodivers	rsity Unit change	10.00 Combined hal 8.00 6.00	biat area change













Hedgerows and lines of trees

On site ch	hange by he	dgerow type					Combined	ength lost by
	Complited	engin iosi by						
Hedgerow type	Existing length on-site	Existing value	Proposed length on-site	Proposed value on-site	On-site length change	On-site Unit change	Category	Length lost (KI
Native Species Rich Hedgerow with trees - Associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00		
Native Species Rich Hedgerow with trees	0.00	0.00	0.00	0.00	0.00	0.00	V.High	0
Native Species Rich Hedgerow - Associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00	v.111911	0
Native Hedgerow with trees - Associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00	High	0
Native Species Rich Hedgerow	0.00	0.00	0.20	1.34	0.20	1.34	Ingn	0
Native Hedgerow - Associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00	Medium	0.04
Native Hedgerow with trees	0.62	7.44	0.58	6.96	-0.04	-0.48	Medium	0.04
Line of Trees (Ecologically Valuable)	0.00	0.00	0.00	0.00	0.00	0.00	Low	0
Line of Trees (Ecologically Valuable) - with Bank or Ditch	0.00	0.00	0.00	0.00	0.00	0.00	VV OL	0
Native Hedgerow	0.16	0.96	0.16	0.96	0.00	0.00	V.Low	0
Line of Trees	0.00	0.00	0.00	0.00	0.00	0.00	W ОЦ. V	0
Line of Trees - Associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00		
Hedge Ornamental Non Native	0.00	0.00	0.40	0.39	0.40	0.39		

Combined l	ength lost by dis	tinctiveness band
Category	Length lost (KM)	Length lost (%)
V.High	0	
High	0	
Medium	0.04	100





% Length lost by d

distinctiveness category

e.														
î Tr	Off site change by hedgerow type													
io s	Off site baseline Post development off site Off site Ch													
and Line:	Hedgerow type	Existing length off-site	Existing value off- site	Proposed length off-site	Proposed value off-site	Off-site length change	Off site Unit change							
rs 8	Native Species Rich Hedgerow with trees - Associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00							
MO.	Native Species Rich Hedgerow with trees	0.00	0.00	0.00	0.00	0.00	0.00							
ger	Native Species Rich Hedgerow - Associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00							
d'	Native Hedgerow with trees - Associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00							
ЭС Г	Native Species Rich Hedgerow	0.00	0.00	0.00	0.00	0.00	0.00							
	Native Hedgerow - Associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00							
	Native Hedgerow with trees	0.00	0.00	0.00	0.00	0.00	0.00							
	Line of Trees (Ecologically Valuable)	0.00	0.00	0.00	0.00	0.00	0.00							
	Line of Trees (Ecologically Valuable) - with Bank or Ditch	0.00	0.00	0.00	0.00	0.00	0.00							
	Native Hedgerow	0.00	0.00	0.00	0.00	0.00	0.00							
	Line of Trees	0.00	0.00	0.00	0.00	0.00	0.00							
	Line of Trees - Associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00							
	Hedge Ornamental Non Native	0.00	0.00	0.00	0.00	0.00	0.00							





Combined on and off gite ghange by hedgerow type													
Combined on and off site change by hedgerow type													
	Ba	aseline	Post developr	nent on site	Onsite	e Change							
Hedgerow type	Existing	Existing value	Proposed length	Proposed	length	Onsite Unit							
nedgerow type	length	LAISING VALUE	i i oposed ieligili	value	change	change							
Native Species Rich Hedgerow with trees - Associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00							
Native Species Rich Hedgerow with trees	0.00	0.00	0.00	0.00	0.00	0.00							
Native Species Rich Hedgerow - Associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00							
Native Hedgerow with trees - Associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00							
Native Species Rich Hedgerow	0.00	0.00	0.20	1.34	0.20	1.34							
Native Hedgerow - Associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00							
Native Hedgerow with trees	0.62	7.44	0.58	6.96	-0.04	-0.48							
Line of Trees (Ecologically Valuable)	0.00	0.00	0.00	0.00	0.00	0.00							
Line of Trees (Ecologically Valuable) - with Bank or Ditch	0.00	0.00	0.00	0.00	0.00	0.00							
Native Hedgerow	0.16	0.96	0.16	0.96	0.00	0.00							
Line of Trees	0.00	0.00	0.00	0.00	0.00	0.00							
Line of Trees - Associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00							
Hedge Ornamental Non Native	0.00	0.00	0.40	0.39	0.40	0.39							



Existing value

 Proposed value on-site
 Existing length off-site
 Proposed value off-site





Existing value Proposed value on-site On-site Unit change Off site Unit change Proposed value off-site Existing value off-site

## **Rivers and Streams**

River type

Priority Habitat

Other Rivers and Streams

Ditches

Canals Culvert

On site change by river type														
	seline	Post developm	nent on site	Onsite Change										
River type	Existing length	Existing value	Proposed length	Proposed value	length change	Onsite Unit change								
Priority Habitat	0.0	0.0	0.0	0.0	0.0	0.0								
Other Rivers and Streams	0.0	0.0	0.0	0.0	0.0	0.0								
Ditches	0.0	0.0	0.0	0.0	0.0	0.0								
Canals	0.0	0.0	0.0	0.0	0.0	0.0								
Culvert	0.0	0.0	0.0	0.0	0.0	0.0								





Unit change by river type

Length change by river type

Off site change by river type

	Ba	aseline	Post develop:	ment off-site	Off-site Change		
River type	Existing length off-site	Existing value off- site	Proposed length off-site	Proposed value off-site	Off-site length change	Off-site unit change	
Priority Habitat	0.0	0.0	0.0	0.0	0.0	0.0	
Other Rivers and Streams	0.0	0.0	0.0	0.0	0.0	0.0	
Ditches	0.0	0.0	0.0	0.0	0.0	0.0	
Canals	0.0	0.0	0.0	0.0	0.0	0.0	
Culvert	0.0	0.0	0.0	0.0	0.0	0.0	

Existing

lenath

0.0

0.0

0.0

0.0

 Combined on and off site change by river type

 Baseline
 Post development on site
 Onsite Change

0.0

0.0

0.0

0.0

0.0 0.0 0.0 0.0 0.0 0.0

Existing value Proposed length

0.0

0.0

0.0

0.0

Proposed length Onsite Unit

value

0.0

0.0

0.0

0.0 0.0

change

0.0

0.0

0.0 0.0

change

0.0

0.0

0.0



Existing value Proposed value Onsite Unit change Existing value off-site Off-site Off-site unit change

Existing length
Proposed length
Iength change
Existing length off-site
Proposed length off-site
Off-site length change

Land north of Duke's Meadow Drive (Phase 2), Ban Headline Results

Return to results menu

	Habitat units	35.10
On-site baseline	Hedgerow units	8.40
	River units	0.00
	Habitat units	32.48
On-site post-intervention	Hedgerow units	9.60
(Including habitat retention, creation & enhancement)	River units	0.00
	Habitat units	-7.47%
On-site net % change	Hedgerow units	14.29%
(Including habitat retention, creation & enhancement)	River units	0.00%
	Habitat units	8.40
Off-site baseline	Hedgerow units	0.00
	River units	0.00
	Habitat units	18.25
Off-site post-intervention	Hedgerow units	0.00
(Including habitat retention, creation & enhancement)	River units	0.00
	Habitat units	7.22
Total net unit change	Hedgerow units	1.20
(including all on-site & off-site habitat retention, creation & enhancement)	River units	0.00
	Habitat units	20.58%
Total on-site net % change plus off-site surplus	Hedgerow units	14.29%
(including all on-site & off-site habitat retention, creation & enhancement)	River units	0.00%
Trading rules Satisfied?	Ye	es √



Land north of Duke's Meadow Drive (Phase 2), Banbur led Results	Ketuin	to results nenu					
Summary Figures							
Net project biodiversity uni (including all on-site & off-site habitat retention/cre	ts eation)	Habitat units Hedgerow units River units	7.22 1.20 0.00				
	2200	Habitat units	20.58%				
Total project biodiversity % ch (including all On-site & Off-site Habitat Creation + Retained H	ange <sup>Jabitats</sup> )	Hedgerow units River units	14.29% 0.00%				
		River units					
Combined habitat r	ange <sup>Iabitats)</sup> retention and enhancen Habitats	River units					
Combined habitat r Total on-site and off-site baseline area / length	retention and enhancem Habitats 10.88	<i>River units</i> nent	0.00%				
Combined habitat r	retention and enhancem Habitats	nent Hedgerows	0.00% Rivers				
Combined habitat r Total on-site and off-site baseline area / length Total on-site and off-site baseline units	retention and enhancem Habitats 10.88 43.50	nent Hedgerows 0.78 8.40	0.00% Rivers 0.00 0.00				
Combined habitat r Total on-site and off-site baseline area / length Total on-site and off-site baseline units Total on-site and off-site baseline area / length retained	etention and enhancem Habitats 10.88 43.50	River units	0.00% Rivers 0.00 0.00 0.00				
Combined habitat r Total on-site and off-site baseline area / length Total on-site and off-site baseline units	retention and enhancem Habitats 10.88 43.50	nent Hedgerows 0.78 8.40	0.00% Rivers 0.00 0.00				
Combined habitat r Total on-site and off-site baseline area / length Total on-site and off-site baseline units Total on-site and off-site baseline area / length retained Total on-site and off-site baseline units retained	retention and enhancem Habitats 10.88 43.50 0.00 0.00	River units	0.00% Rivers 0.000 0.00				
Combined habitat r Total on-site and off-site baseline area / length Total on-site and off-site baseline units Total on-site and off-site baseline area / length retained Total on-site and off-site baseline units retained	etention and enhancem Habitats 10.88 43.50 0.00 0.00 2.10	River units         nent         0.78         0.78         0.74         0.792	0.00% Rivers 0.00 0.00 0.00 0.00 0.00 0.00				
Combined habitat r Total on-site and off-site baseline area / length Total on-site and off-site baseline units Total on-site and off-site baseline area / length retained	retention and enhancem Habitats 10.88 43.50 0.00 0.00	River units	0.00% Rivers 0.000 0.00				
Combined habitat r Total on-site and off-site baseline area / length Total on-site and off-site baseline units Total on-site and off-site baseline area / length retained Total on-site and off-site baseline units retained	etention and enhancem Habitats 10.88 43.50 0.00 0.00 2.10	River units         nent         0.78         0.78         0.74         0.792	0.00% Rivers 0.00 0.00 0.00 0.00 0.00 0.00				

Area habitats

а Н						
On site c	hange by broad habitat type	e	O such in a discussion la stabilitation attingent and have d	% Area lost by distinctiveness category	On-site and off-site habitat retention by category	On-site and off-site habitat retention category
	Baseline	Post development on site Onsite Change	Combined area lost by distinctiveness band	V.Low 0%	area (hectares)	biodiversity units
Habitat group		Proposed area Proposed Area Onsite Unit change	Category Area lost (hectares) Area lost (%)	V.High	10.00 9.00 8.00 7.00	40.00 35.10 35.00 30.00 25.00
Cropland Grassland	0.00 0.00 8.77 35.02	0.00         0.00         0.00         0.00           3.41         26.83         -5.36         -8.19			6.00	20.00
Heathland and shrub	0.01 0.08	0.24         1.61         0.23         1.53	V.High 0	Medium	5.00	
Lakes	0.00 0.00	0.00 0.00 0.00 0.00	High 0		4.00	10.00 8.40
Sparsely vegetated land Urban	0.00 0.00 0.00 0.00	0.00         0.00         0.00         0.00           5.25         4.04         5.25         4.04		Low	3.00 2.10	
Wetland	0.00 0.00	0.00 0.00 0.00	Medium 8.75 100		1.00	0.00
Woodland and forest	0.00 0.00	0.00 0.00 0.00 0.00	Low 0.03 0	■ V.Low	0.00	0.00 Total on-site and off-site Baseline units proposed for Total on-site and off-site
Intertidal sediment Coastal saltmarsh	0.00 0.00 0.00 0.00	0.00         0.00         0.00         0.00           0.00         0.00         0.00         0.00		Medium	Total on-site and off-siteArea / length proposed forTotal on-site and off-sitebaseline area / length retainedenhancementbaseline area / length lost	baseline units retained enhancement baseline units lost
Rocky shore	0.00 0.00	0.00 0.00 0.00 0.00	V.Low 0	100%		
Coastal lagoons	0.00 0.00	0.00 0.00 0.00 0.00				
Intertidal Hard Structures	0.00 0.00	0.00 0.00 0.00				
			Unit change by habitat g	roup	On site area chan	ge by habitat group
Off site c	hange by broad habitat type		40.00		10.00	
	Baseline	Post development Off-site Off-site Change	35.00		9.00	
Habitat group	Existing area Off-site Existing value	g Off-site proposed area Off site Proposed value Off-site area change Off-site unit change	30.00		7.00 6.00	
Cropland	0.00 0.00	0.00 0.00 0.00 0.00			5.00	
Grassland Heathland and shrub	2.10         8.40           0.00         0.00	2.10         18.25         0.00         9.85           0.00         0.00         0.00         0.00	20.00		4.00	
	0.00 0.00	0.00 0.00 0.00 0.00	15.00		3.00	
Sparsely vegetated land	0.00 0.00	0.00 0.00 0.00 0.00	10.00		2.00	
Urban Wetland	0.00 0.00	0.00         0.00         0.00         0.00           0.00         0.00         0.00         0.00			1.00	
Weitand Woodland and forest	0.00 0.00	0.00 0.00 0.00 0.00	5.00		0.00	
Intertidal sediment	0.00 0.00	0.00 0.00 0.00 0.00	0.00		Cropland Grassland Heathland and Lakes Sparsely Urban shrub vegetated land	Wetland         Woodland and forest         Intertidal         Coastal saltmarsh         Rocky shore         Coastal lagoons         Intertidal Hard           Structures         Structures
Coastal saltmarsh	0.00 0.00	0.00 0.00 0.00 0.00	Cropland Grassland Heathland and Lakes Sparsely Urban Wetland shrub vegetated land	Woodland and         Intertidal         Coastal         Rocky shore         Coastal lagoons         Intertidal Hard           forest         sediment         saltmarsh         Structures         Structures		
Rocky shore Coastal lagoons	0.00 0.00 0.00 0.00	0.00         0.00         0.00         0.00           0.00         0.00         0.00         0.00	Existing value Proposed value Off si		Existing area Propos	ed area Off-site proposed area
Intertidal Hard Structures	0.00 0.00	0.00 0.00 0.00				
Combined on site ar	nd off site change by broad	habitat type	Combined Biodiversity L	Unit change	Combined ha	biat area change
	Baseline	On-site and Off-site post development Combined change	40.00		8.00	
Habitat group	Existing area Existing value	Combined proposed area Combined proposed area value Proposed area	30.00		6.00	
Cropland	0.00 0.00	0.00 0.00 0.00 0.00	20.00		2.00	
Grassland	10.87 43.42	5.51 45.08 -5.36 1.66	15.00			
Heathland and shrub Lakes	0.01 0.08 0.00 0.00	0.24         1.61         0.23         1.53           0.00         0.00         0.00         0.00	10.00		0.00 Cropland Grassland Heathland and Lakes Sparsely Urban	Wetland Woodland and Intertidal Coastal saltmarsh Rocky shore Coastal lagoons Intertidal Hard
Sparsely vegetated land	0.00 0.00	0.00 0.00 0.00 0.00	5.00		-2.00 shrub vegetated land	forest sediment Structures
Urban	0.00 0.00	5.25 4.04 5.25 4.04	0.00 – Cropland Grassland Heathland and Lakes Sparsely Urban Wetland	Woodland and Intertidal Coastal Rocky shore Coastal lagoons Intertidal Hard	-4.00	
Wetland	0.00 0.00	0.00 0.00 0.00 0.00	-5.00 shrub vegetated land	forest sediment saltmarsh Structures	-6.00	
Woodland and forest Intertidal sediment	0.00 0.00 0.00 0.00	0.00         0.00         0.00         0.00           0.00         0.00         0.00         0.00	-10.00 -15.00		-8.00	
Coastal saltmarsh	0.00 0.00	0.00         0.00         0.00         0.00           0.00         0.00         0.00         0.00				
Rocky shore	0.00 0.00	0.00 0.00 0.00 0.00	Existing value Proposed value Onsite Unit change Off-site	e unit change Off site Proposed value Off-site Existing value	Existing area Proposed area Area change C	ff-site area change 🛛 Off-site proposed area 🗨 Existing area
Coastal lagoons Intertidal Hard Structures	0.00 0.00	0.00         0.00         0.00         0.00           0.00         0.00         0.00         0.00				
	0.00	0.00 0.00 0.00				











Hedgerows and lines of trees

On site c	hange by hedgerow type	•						% Length lost by dist	inctiveness category	On-site and off-site hadge retention by estagony	retention category
	Baseline	Post development on sit	e Onsite Change		Combined	length lost by dis	tinctiveness band	8%	0 7	On-site and off-site hedge retention by category biodiversity un length (km)	inits
Hedgerow type Native Species Rich Hedgerow with trees - Associated with bank or ditch	Existing length on-site 0.00 0.00	Proposed Proposed length on-site value on-s	lenan		Category	Length lost (KM)	Length lost (%)		■ V.High ■ High	0.80     0.74       0.70     7.92       7.00	
Native Species Rich Hedgerow with trees Native Species Rich Hedgerow - Associated with bank or ditch	0.00         0.00           0.00         0.00           0.00         0.00	0.00         0.00           0.20         1.68           0.00         0.00	0.20 1.68 0.00 0.00	-	V.High	0				0.60 6.00 5.00 5.00 Figure 1.00 Figure 1.0	
Native Hedgerow with trees - Associated with bank or ditch Native Species Rich Hedgerow	0.00         0.00           0.00         0.00           0.00         0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	-	High	0			Medium	0.40 4.00 4.00 3.00 5.00 5.00 5.00 5.00 5.00 5.00 5	
Native Hedgerow - Associated with bank or ditch Native Hedgerow with trees	0.00 0.00 0.62 7.44	0.00 0.00 0.58 6.96	0.00 0.00 -0.04 -0.48	-	Medium	0.04	100		= Low	0.20 2.00	0.40
Line of Trees (Ecologically Valuable) Line of Trees (Ecologically Valuable) - with Bank or Ditch	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	_	Low	0			V.Low	0.00	0.48
Native Hedgerow Line of Trees	0.16 0.96 0.00 0.00	0.16 0.96 0.00 0.00	0.00 0.00 0.00 0.00		V.Low	0		100%			ts proposed for Total on-site and off-site neement baseline units lost
			0100								
Line of Trees - Associated with bank or ditch Hedge Ornamental Non Native	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00								
Hedge Ornamental Non Native	0.00 0.00	0.00 0.00	0.00 0.00		00		Change by hedge (Hedgerow u			0.70 On site length change by hedgerow length (km)	
Hedge Ornamental Non Native	0.00 0.00	0.00 0.00	0.00 0.00 0.00 0.00	8.	00					0.70 On site length change by hedgerow length (km) 0.60	
Hedge Ornamental Non Native Off site c Hedgerow type	0.00 0.00 hange by hedgerow type Off site baseline	0.00 0.00	e Off site Change Off-site Off site Unit	8. 7. 6. 5.	00 00 00 00					0.70 On site length change by hedgerow length (km) 0.60 0.50 0.40 0.30	
Hedge Ornamental Non Native Off site c Hedgerow type	0.00     0.00       0.00     0.00       change by hedgerow type       Off site baseline       Existing       Existing value of	Oldo     Oldo       0.00     0.00       Post development off sit       ff-     Proposed       Proposed     Proposed	e Off site Change Off-site length Off site Unit change	8. 7. 6. 5.	00 00 00 00 00 00					0.60 0.50 0.40 0.30	
Hedge Ornamental Non Native Off site c	0.00     0.00       0.00     0.00       change by hedgerow type       Off site baseline       Existing       length off-site       site	Oldo     Oldo       0.00     0.00       0.00     0.00       Post development off sit       ff-     Proposed length off-site       Proposed     Proposed       value off-s	e Off site Change Off-site length change	8. 7. 6. 5. 4.	00 00 00 00 00 00 00					0.70 On site length change by hedgerow length (km) 0.60 0.50 0.40 0.30 0.20	
Hedge Ornamental Non Native         Off site of         Hedgerow type         Native Species Rich Hedgerow with trees - Associated with bank or ditch         Native Species Rich Hedgerow - Associated with bank or ditch         Native Species Rich Hedgerow - Associated with bank or ditch	0.000.000.000.00change by hedgerow typeOff site baselineExisting length off-siteExisting value of site0.000.00	Post development off sit       ff-     Proposed length off-site       0.00     0.00	e Off site Change Off-site length change 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	8. 7. 6. 5. 4. 3. 2.	00 00 00 00 00 00 00 00					0.60 0.50 0.40 0.30 0.20	
Hedge Ornamental Non Native Off site of Hedgerow type Native Species Rich Hedgerow with trees - Associated with bank or ditch Native Species Rich Hedgerow with trees	0.00     0.00       0.00     0.00       0.00     0.00       Change by hedgerow type       Off site baseline       Existing length off-site     Existing value or site       0.00     0.00       0.00     0.00       0.00     0.00       0.00     0.00       0.00     0.00       0.00     0.00	Post development off sit       ff-     Proposed length off-site       0.00     0.00	0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           e         Off site Change           I         Off-site           length         Off site Unit           change         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00	8. 7. 6. 5. 4. 3. 2.	00 00 00 00 00 00 00 00 00 00					0.60 0.50 0.40 0.30 0.20 0.10	
Hedge Ornamental Non Native         Off site of         Hedgerow type         Native Species Rich Hedgerow with trees - Associated with bank or ditch         Native Species Rich Hedgerow - Associated with bank or ditch         Native Species Rich Hedgerow - Associated with bank or ditch         Native Hedgerow with trees - Associated with bank or ditch         Native Species Rich Hedgerow - Associated with bank or ditch         Native Species Rich Hedgerow         Native Species Rich Hedgerow	0.00         0.00           0.00         0.00           0.00         0.00           change by hedgerow type           Off site baseline           Existing length off-site         Existing value of site           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00	O.00         O.00           0.00         0.00           0.00         0.00           Post development off sit           ff-         Proposed length off-site           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00	0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0         0.00           0         0.00           0         0.01           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00	8. 7. 6. 5. 4. 3. 2. 1.	00 00 00 00 00 00 00 00 00 00 00			nits)		0.60 0.50 0.40 0.30 0.20	Line of Trees Line of Trees - Hedge
Hedge Ornamental Non Native         Off site of         Off site of         Hedgerow type         Native Species Rich Hedgerow with trees - Associated with bank or ditch         Native Species Rich Hedgerow with trees         Native Species Rich Hedgerow - Associated with bank or ditch         Native Hedgerow with trees - Associated with bank or ditch         Native Species Rich Hedgerow - Associated with bank or ditch         Native Hedgerow with trees - Associated with bank or ditch         Native Hedgerow - Associated with bank or ditch         Native Hedgerow - Associated with bank or ditch         Native Hedgerow - Associated with bank or ditch	0.00         0.00           0.00         0.00           0.00         0.00           Change by hedgerow type           Off site baseline           Existing length off-site         Existing value of site           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00	0.00         0.00           0.00         0.00           0.00         0.00           Post development off sit           ff-         Proposed length off-site           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00	0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0         0.00           0         0.00           0         0.01           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00	8. 7. 6. 5. 4. 3. 2. 1. 0.		ive Species Native Species Nati Hedgerow Rich Hedgerow - Hedgero	(Hedgerowu ve Native Species Native	nits)	ne of Trees Line of Trees - Hedge Associated with Ornamental Non	0.60 0.50 0.40 0.30 0.20 0.10 0.00 Native Species Native Species Native Hedgerow Native Species Native Hedgerow Line of Trees Line of Trees Line of Trees Native Hedgerow Line of Trees Line of Trees Native Hedgerow Line of Trees Line of T	Associated with Ornamental Non
Hedge Ornamental Non Native         Off site c         Off site c         Hedgerow type         Native Species Rich Hedgerow with trees - Associated with bank or ditch         Native Species Rich Hedgerow with trees         Native Species Rich Hedgerow - Associated with bank or ditch         Native Hedgerow with trees - Associated with bank or ditch         Native Hedgerow with trees - Associated with bank or ditch         Native Hedgerow - Associated with bank or ditch         Native Hedgerow - Associated with bank or ditch         Native Hedgerow with trees	0.00         0.00           0.00         0.00           0.00         0.00           change by hedgerow type           Off site baseline           Existing length off-site         Existing value or site           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00	O.00         O.00           0.00         0.00           0.00         0.00           0.00         0.00           ff-         Proposed length off-site         Proposed value off-s           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00	0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00	8. 7. 6. 5. 4. 3. 2. 1. 0.	Rich Hedgerow Rich with trees - with	Hedgerow Rich Hedgerow - Hedgerov vith trees Associated with tree	(Hedgerowu ve Native Species Native w with Rich Hedgerow Hedgerow - He s - Associated with	Native Line of Trees Line of Trees Native Line of Trees Hedgerow With (Ecologically (Ecologically Hedgerow trees Valuable) Valuable) - with		0.60 0.50 0.40 0.30 0.20 0.10 Native Species Native Hedgerow Native Species Native Hedgerow Native Hedgerow Native Hedgerow Line of Trees (Ecologically Valuable) with trees - Associated with Associated with Associated with bank or ditch b	Line of Trees Line of Trees - Hedge Associated with Ornamental Non bank or ditch Native
Hedge Ornamental Non Native         Off site of         Off site of         Hedgerow type         Native Species Rich Hedgerow with trees - Associated with bank or ditch         Native Species Rich Hedgerow with trees         Native Species Rich Hedgerow - Associated with bank or ditch         Native Hedgerow with trees - Associated with bank or ditch         Native Species Rich Hedgerow - Associated with bank or ditch         Native Hedgerow with trees - Associated with bank or ditch         Native Hedgerow - Associated with bank or ditch         Native Hedgerow - Associated with bank or ditch         Native Hedgerow - Associated with bank or ditch	0.00         0.00           0.00         0.00           0.00         0.00           Change by hedgerow type           Off site baseline           Existing length off-site         Existing value of site           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00	0.00         0.00           0.00         0.00           0.00         0.00           Post development off sit           ff-         Proposed length off-site           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00	0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0         0.00           0         0.00           0         0.01           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00	8. 7. 6. 5. 4. 3. 2. 1. 0.	Rich Hedgerow Rich	Hedgerow Rich Hedgerow - Hedgero	(Hedgerowu ve Native Species Native w with Rich Hedgerow Hedgerow - He s - Associated with ed with bank or ditch	Native Line of Trees Line of Trees Native Line of Trees Hedgerow	Associated with Ornamental Non	0.60 0.50 0.40 0.30 0.20 0.10 Native Species Native Hedgerow Native Species Native Hedgerow Native Species Native Hedgerow Native Species Native Hedgerow Native Hedgerow Native Hedgerow Line of Trees (Ecologically Valuable) - with trees - With trees - With trees - Native Hedgerow - Associated with Mith trees - Native Hedgerow - Native Hedgerow - Associated with Mith trees - Native Hedgerow - Associated with Mith trees - Native - Na	Associated with Ornamental Non

On site o			Combine	ed length lost by dis	tingtiveness band		% Length lost by distin	ctiveness category	C	on-site and off-site hedge retention by o				
					Onsite Cha	inge	Compilie				8%			length (km)
Hedgerow type	Existing length on-site	Existing value	Proposed length on-site	Proposed value on-site	lonoth	-site Unit change	Category	Length lost (KM)	Length lost (%)			■ V.High	0.80	0.74
Native Species Rich Hedgerow with trees - Associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00						= High	0.60	
Native Species Rich Hedgerow with trees	0.00	0.00	0.20	1.68	0.20	1.68	V.High	0					0.50	
Native Species Rich Hedgerow - Associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00	V.111911	Ŭ				Medium		
Native Hedgerow with trees - Associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00	High	0					0.40	
Native Species Rich Hedgerow	0.00	0.00	0.00	0.00		0.00							0.30	-
Native Hedgerow - Associated with bank or ditch	0.00	0.00	0.00	0.00		0.00	Medium	0.04	100			= Low	0.20	-
Native Hedgerow with trees	0.62	7.44	0.58	6.96		-0.48			100	_			0.10	-
Line of Trees (Ecologically Valuable)	0.00	0.00	0.00	0.00	0.00	0.00	Low	0				V.Low		0.00
Line of Trees (Ecologically Valuable) - with Bank or Ditch	0.00	0.00	0.00	0.00	0.00	0.00		Ŭ		_		- V.LOW	0.00 To	tal on-site and off-site Area / length proposed for
Native Hedgerow	0.16	0.96	0.16	0.96	0.00	0.00	V.Low	0			100%		basel	ine area / length retained enhancement
Line of Trees	0.00	0.00	0.00	0.00	0.00	0.00		Ŭ						
Line of Trees - Associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00								
Hedge Ornamental Non Native	0.00	0.00	0.00	0.00	0.00	0.00								
Off site o	change by he	edgerow type					8.00		Change by hedg (Hedgerow				0.70	
		te baseline	Post develop:	ment off site	Off site Ch	ange	7.00						0.00	
Hedgerow type	Existing length off-site	Existing value off- site		Proposed	Off-site length	Èsite Unit change	6.00						0.50 0.40 0.30	
Native Species Rich Hedgerow with trees - Associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00	4.00							
Native Species Rich Hedgerow with trees	0.00	0.00	0.00	0.00	0.00	0.00	3.00						0.20	
Native Species Rich Hedgerow - Associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00	2.00	-					0.10	
Native Hedgerow with trees - Associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00	1.00	-					0.00	
Native Species Rich Hedgerow	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00 Native Spe	cies Native Species Native Species Native Hedgerow
Native Hedgerow - Associated with bank or ditch	0.00	0.00	0.00	0.00	0.00	0.00		Native Species Native Species Nat				of Trees Line of Trees - Hedge	Rich Hedge	row Rich Hedgerow Rich Hedgerow - with trees -
Native Hedgerow with trees	0.00	0.00	0.00	0.00		0.00		Rich Hedgerow Rich Hedgerow - Hedgero with trees Associated with tree	ow with Rich Hedgerow Hedgerow - H es - Associated with		ologically (Ecologically Hedgerow Iluable) Valuable) - with	Associated with Ornamental Non bank or ditch Native	with tree Associated	
Line of Trees (Ecologically Valuable)	0.00	0.00	0.00	0.00	0.00	0.00	Associated with	bank or ditch Associat	ed with bank or ditch	ti ces Vai	Bank or Ditch	Sunkor alteri Hative	bank or di	
Line of Trees (Faclogically Valuable), with Bank or Ditch	0.00	0.00	0.00	0.00	0.00	0.00	bank or ditch	bank o						





 

 Combined on and off site change by hedgerow type

 Baseline
 Post development on site
 Onsite Change

 Proposed length Onsite Unit Existing Hedgerow type Existing value Proposed length value change lenath change ValueValueChangeChangeValueValueChangeChangeChangeValueAssociated with bank or ditch0.000.000.000.000.00Native Species Rich Hedgerow - Associated with bank or ditch0.000.000.000.001.680.201.68Native Species Rich Hedgerow - Associated with bank or ditch0.000.000.000.000.000.00Native Hedgerow with trees - Associated with bank or ditch0.000.000.000.000.000.00Native Hedgerow with trees - Associated with bank or ditch0.000.000.000.000.000.00 Native Hedgerow with trees - Associated with bank or ditch Native Species Rich Hedgerow Native Hedgerow - Associated with bank or ditch Native Hedgerow with trees Line of Trees (Ecologically Valuable) Line of Trees (Ecologically Valuable) - with Bank or Ditch Native Hedgerow Line of Trees Line of Trees - Associated with bank or ditch Hedge Ornamental Non Native 0.00 0.00 0.62 7.44 0.58 6.96 -0.48 0.00 0 000000.16 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.000.00 0.00 0.00 0.00 0.00 0.00

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Existing value Proposed value on-site On-site Unit change Off site Unit change Proposed value off-site Existing value off-site

% Length lost by d distingtiveness category

Existing value
Proposed value on-site
Existing length off-site
Proposed value off-site



**Rivers and Streams** 

Native Hedgerow Line of Trees Line of Trees - Associated with bank or ditch Hedge Ornamental Non Native

River type

Priority Habitat

Other Rivers and Streams

Ditches

Canals Culvert

On site	e change by	river type					
	Ba	aseline	Post developr	nent on site	Onsite Change		
Piwer two	Existing	Existing value	Dropogod longth	Proposed	length	Onsite Unit	
River type	length	Existing value	Proposed length	value	change	change	
Priority Habitat	0.0	0.0	0.0	0.0	0.0	0.0	
Other Rivers and Streams	0.0	0.0	0.0	0.0	0.0	0.0	
Ditches	0.0	0.0	0.0	0.0	0.0	0.0	
Canals	0.0	0.0	0.0	0.0	0.0	0.0	
Culvert	0.0	0.0	0.0	0.0	0.0	0.0	



1.0 -0.9



Unit change by river type

Length change by river type

Off site change by river type

	Ba	aseline	Post develop:	ment off-site	Off-site Change			
River type	Existing length off-site	Existing value off- site	Proposed length off-site	Proposed value off-site	Off-site length change	Off-site unit change		
Priority Habitat	0.0	0.0	0.0	0.0	0.0	0.0		
Other Rivers and Streams	0.0	0.0	0.0	0.0	0.0	0.0		
Ditches	0.0	0.0	0.0	0.0	0.0	0.0		
Canals	0.0	0.0	0.0	0.0	0.0	0.0		
Culvert	0.0	0.0	0.0	0.0	0.0	0.0		

Existing

lenath

0.0

0.0

0.0

0.0

 Combined on and off site change by river type

 Baseline
 Post development on site
 Onsite Change

0.0

0.0

0.0

0.0 0.0 0.0 0.0 0.0 0.0

Existing value Proposed length

0.0

0.0

0.0

0.0

Proposed length Onsite Unit

change

0.0

0.0

0.0 0.0

change

0.0

0.0

0.0

value

0.0

0.0

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Existing value Proposed value Onsite Unit change Existing value off-site Off-site Off-site unit change

Existing length
Proposed length
Iength change
Existing length off-site
Proposed length off-site
Off-site length change

Condense	d north of Duke's Meadow Drive (Phase 2), Banbury A-1 Site Habitat Baseline / Show Columns in Menu Instructions														
Ref Broad Hab	Habitats and areas	Area	Distinctiveness	Condition		Strategic significance	ſ	Strategic Significance Significance	Ecological baseline Total habitat	Area		Retention category biodiversity val Baseline Baseline Area hab	itat Unita loat	Bespoke compensation agreed for	Comments Assessor comments
ef Broad Hab Grassland		Area (hectares) 8.74	Distinctiveness Score Medium 4	Condition       Poor	Score 1	Strategic significance Area/compensation not in local strategy/ no local strategy	Strategic significance Low Strategic Significance	StrategicSuggested action to addressSignificancehabitat lossesmultiplierSame broad habitat or a higherldistinctiveness habitat required	34.96	retained	l enhanced	Baseline units retainedBaseline units enhancedArea hab lost0.000.008.74	UIIIIS IOSI	unacceptable losses	Assessor comments Reviewer comments
Grassland Heathland and s		0.03	Low 2 Medium 4	Poor Moderate	T	Area/compensation not in local strategy/ no local strategy Area/compensation not in local strategy/ no local strategy	Significance	ISame distinctiveness or better habitat required ≥ISame broad habitat or a higher distinctiveness habitat required	0.06 0.08			0.00         0.00         0.03           0.00         0.00         0.01	0.06		
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3		9.70							35.10	0.00	0.00		05.10		
	Total habitat area	8.78							35.10			0.00 0.00 8.78 cluding area of Urban Green walls)			



Land north of Duke's Meadow Drive (Phase 2), Banbury A-2 Site Habitat Creation											
Condense / Show Columns	Condense / Show Rows										
Main Menu	Instructions										

Main Menu Instructions	-			Post dev	velopment/ post inte	tervention habita	ts					
Broad Habitat Proposed habitat Area (hectares)	Distinctive Distinctiveness		Strategic signifi Strategic significance	icanceStrategicStrategicStrategicpositionto target	Habitat created in	Delay in starting	Temporal multiplier	Final time to targetFinal time to targetStand diffic of createcondition/yearsmultiplierof create	Difficulty multiplie ard ulty Applied difficulty multiplier ation	Final difficulty of	Difficulty multiplierHabitat units deliveredCom	ments Reviewer comments
Urban     Developed land; sealed surface     3.23	V.Low	0 N/A - Other 0	Area/compensation not in local strategy/ no	Low Strategic	advance/years	habitat	Standard time to target condition applied	condition/years     multiplier     of creation       0     1.000     Lot		Creation Medium	Residential buildings/access, driveways	
Urban     Vegetated garden     1.9	Low	Condition 2 Assessment 1	local strategy Area/compensation not in local strategy/ no	Low Strategic			Standard time to target condition applied	1 0.965 Lo		Low	Implication       Implication         1       3.67         Residential vegetated gardens (based	
	Low	N/A	local strategy	Significance I I							attenuation basin (drainage function and associated management implications -	
Grassland Other neutral grassland 0.65	Medium	4 Moderate 2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance 1 5			Standard time to target condition applied	5 0.837 Lo	w Standard difficulty applied	Low	1 4.35 accordingly, moderate condition assumed on a precautionary basis inclusion of additional features such as	
											permanent standing water and wetland areas proposed at the detailed stage which would likely increase ecological	
Grassland Other neutral grassland 1.82	Medium	4 Good 3	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance 1 10			Standard time to target condition applied	10 0.700 Lo	w Standard difficulty applied	Low	space areas to be managed for the benefit of wildlife such that good115.29condition should be achievable.	
			Area/gompongation not in logal strategy/ no	Less Charles is							(Assumed 80% open space area wildflower grssland and 20% scrub)         Native scrub located adjacent to	
Heathland and shrub     Mixed scrub     0.24	Medium	4 Moderate 2	local strategy	Significance			Standard time to target condition applied	5 0.837 Lo	w Standard difficulty applied	Low	l 1.61 residential development parcels therefore assumed moderate condition.	
Grassland Other neutral grassland 0.83	Medium	4 Good 3		Low Strategic Significance 1 10			Standard time to target condition applied	10 0.700 Lo	w Standard difficulty applied	Low	16.97Wildflower grassland within open space located internally (in combination with amenity grassland) unlikely to achieve good condition - moderate conditionModified grassland/formal amenity uses	
Grassland Modified grassland 0.11	Low	2 Poor 1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance 1 1			Standard time to target condition applied	1 0.965 Lo	w Standard difficulty applied	Low		
Urban     Urban Tree     0.1221	Medium	4Moderate2	Area/compensation not in local strategy/ no local strategy				Standard time to target condition applied	27 0.382 Lo	w Standard difficulty applied	Low	account of amenity use requirements.       1     0.37	
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	Land north o D Condense/Show Colu	of Duke's Meadow Drive (Phase 2), Banbury D-1 Off Site Habitat Baseline												
	Main Menu													
Baseline ref	Broad habitat	Habitats and areas Habitat type	Δυσο	Habitat distinctiveness			significance Strategic significance	Strategic	Suggested action to address habitat losses	Ecological baseline Total	Reter Area Area retained enhanced	ention category biodiversity value Baseline Baseline units units Area lost	Units lost	Bespoke     Comments       compensation     agreed for       unacceptable     Assessor comments   Reviewer comments
ref 1	Grassland	Other neutral grassland	(hectares) 2.1	Medium 4	Poor	Area/compensation not in local strategy/ local strategy		multiplier l	Same broad habitat or a higher distinctiveness habitat required	habitat units     8.40	retained enhanced	retainedenhancedrifed foot0.008.400.00	0.00	Indeceptable     Indeceptable       losses     Grassland enhanced and managed to provide       wildflower grassland.
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B-2 Site Hed	ge Creation
Condense / Show Columns	Condense / Show Rows
Main Menu	Instructions

Main Menu	Proposed habitats	Longth	Habitat distinctive		Habitat condition			Habitat graated		ooral multiplier Standard ar adjusted time to Final t	time to Final	al time to	Difficulty risk n Standard Applied difficulty difficulty of creation multiplier	nultipliers Final	Difficulty	Hedge units	Comments
aseline New hedge number 1	Habitat type Native Species Rich Hedgerow	0.2			ConditionScoreModerate2	Area/compensation not in local strategy/ no local strategy	Significance	in advance/years	starting habitat	applied		target ultiplier 0.837	Low Standard difficulty applied	Low	multiplier applied l	l.34	space areas based on landscape strategy plan.
2 3 4 5 2	Hedge Ornamental Non Native	0.4	V.Low	1	Poor 1	Area/compensation not in local strategy/ no local strategy	Low Strategic     1     1       Significance     1     1       Image: Significance     Image: Significance     Image: Significance			Standard time to target condition applied		0.965	Low Standard difficulty applied	Low	1	0.39	Ornamental hedgerows within residential areas based on landscape strategy plan.
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ad north of Duke's Meadow Drive (Phase 2), Banbury D-3 Off Site Habitat Enhancment Condense / Show Columns Condense / Show Rows Main Menu Instructions															
Image: A state       Baseline habitat       Total habitat       Baseline habitat       Suggested action to address habitat losses         1       Grassland - Other neutral grassland       2.1       Medium       4       Poor       1       Low Strategic Significance       1       8.4       Suggested action to address habitat losses         1       Grassland - Other neutral grassland       2.1       Medium       4       Poor       1       Low Strategic Significance       1       8.4       Suggested action to address habitat losses         1       Grassland - Other neutral grassland       2.1       Medium       4       Poor       1       Low Strategic Significance       1       8.4       Suggested action to address habitat losses         1       Grassland - Other neutral grassland       2.1       Medium       4       Poor       1       Low Strategic Significance       1       8.4       Suggested action to address habitat losses         1       Medium       Medi	Proposed Habitat (Pre-Populated but can be overridden)         Proposed Broad Habitat       Proposed Habitat         Image: Grassland       Other neutral grassland         Image: Imag	Change in distinctive Distinctiveness change Medium - Medium	reness and condition Condition change Poor - Good	Area haDistinctivenessSo2.1Medium141115111	Condition 4 Good 4	A readaction on	Strategic significance strategic significance Strat significance	Post development/ post : egic cance Strategic multiplier Cond cance 1	andard time to target	Tempor	oral multiplier       Difficulty multipliers         Standard or adjusted time to target condition       Final time to target condition/years       Final time to target condition/years       Difficulty of enhancement category       Applied difficulty plier       Difficulty of enhancement category         Standard time to target condition applied       15       0.586       Low       Standard difficulty applied       Low         Image: Condition applied       Image:	y Difficulty multiplier applied l	Spatial risk multiplier         Spatial risk category       Spatial multiplier         Compensation inside LPA or NCA, or deemed to be sufficiently local, to site of biodiversity loss       Image: Compensation inside LPA or NCA, or deemed to be sufficiently local, to site of biodiversity loss	Habitat units delivered ler 18.25	Comments Assessor comments Reviewer comments
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