Land East of Rugby Road, Clifton upon Dunsmore

Preliminary Ecological Appraisal

August 2025

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Executive Summary

i) **Introduction.** Aspect Ecology was commissioned by Richborough Estates in December 2024 to undertake a Preliminary Ecological Appraisal in respect of the proposed development of land east of Rugby Road, Clifton upon Dunsmore.

ii) **Proposals.** The proposals are for development of the site to provide up to 160 residential units, with associated open space and infrastructure.

iii) **Survey.** The site was initially surveyed in January 2025 with mapping of habitats based on the UK Habitat Classification system. In addition, a general appraisal was undertaken of the habitats' potential to support any protected, rare or notable species of fauna or flora. Desk study information has also been gathered from the local records centre and online resources. Subsequent to the initial habitat appraisal, a Daytime Bat Walkover Survey and Badger Survey were conducted in June 2025, and a second Badger Activity Survey, Habitat Appraisal and Habitat Condition Assessment were undertaken in July 2025. The surveys in July 2025 also inspected additional land to the east of the original red line boundary related to the proposed creation of a surface water drainage outfall.

iv) **Ecological Designations.** The site itself is not subject to any statutory or non-statutory ecological designations. The nearest statutory designations are Linnel Road Local Nature Reserve and Ashlawn Cutting Local Nature Reserve, both located approximately 0.7km to the south and west of the site respectively. The nearest non-statutory designation is Clifton Brook Local Wildlife Site which is located approximately 0.3km south of the site. All the ecological designations in the surrounding area are physically well separated from the site and are unlikely to be adversely affected by the proposals.

v) **Habitats.** The site is dominated by arable fields planted with non-cereal crops, which do not form an intrinsically important feature with respect to biodiversity. The hedgerows, scrub and other vegetated habitats on site are extensively anthropogenically influenced and considered to be of site level importance only. Of the semi-natural habitats recorded, the hedgerows are fully retained under the proposals, with enhancements proposed. Some small areas of scrub will be removed and compensated for with new planting, and the landscaping proposals include areas of species rich grassland.

vi) **Protected Species.** Habitats within the site are considered potentially suitable to support protected and notable fauna including roosting bats, Badger, Hedgehog, Brown Hare, amphibians, reptiles and birds. Great Crested Newt is considered likely to be absent from the site following eDNA assessment of the only waterbody with direct access to the construction footprint. Appropriate mitigation measures are proposed to safeguard such species during construction and maintain the viability of their local populations in the long-term.

vii) **Enhancements.** Ecological enhancements proposed to secure a biodiversity net gain will be set out further in the BNG strategy as a separate submission. However, it has been demonstrated that the site can achieve the 10% BNG target on site. Enhancements for fauna are also proposed, to be detailed as part of an ecological enhancement plan which can be secured via a suitably worded planning condition.

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, the proposals would not result in significant harm to biodiversity.

1 Introduction

1.1 Background and Proposals

1.1.1 Aspect Ecology was commissioned by Richborough Estates in December 2024 to undertake a Preliminary Ecological Appraisal in respect of proposed development of land east of Rugby Road, Clifton upon Dunsmore, centred at grid reference SP 52659 75960 (see Plan 6976/ECO1), hereafter referred to as 'the site'.

1.1.2 The proposals are for development of the site to provide up to 160 residential units with associated open space, access and infrastructure (see Appendix 6976/5).

1.2 Site Overview

1.2.1 The site is located in east Warwickshire within an urban-edge context. The site is bounded to the north by residential dwellings and the Clifton upon Dunsmore playing fields, beyond which lies the village of Clifton upon Dunsmore. Arable and sheep grazed fields bound the site to the south, beyond which lies Houlton Way road. Agricultural land lies to the east of the site, and residential dwellings along Rugby Road to the west.

1.2.2 The site itself is dominated by an arable field with narrow grassland margins bound by intensively managed hedgerows and patches of scrub. A small area of mixed scrub is present in the west of the site predominantly comprising non-native and garden escapee species, and an unsealed artificial track runs from access at Rugby Road along the southern boundary to a barn building.

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, informing an appraisal of the likely ecological effects of the proposals. The importance of the habitats and species present is evaluated and where necessary to enable a complete evaluation, recommendations are made for further habitat or species-specific survey.

1.3.2 Avoidance, mitigation and compensation measures have been proposed to safeguard any significant existing ecological interest that has been identified within the site to date. Where appropriate, opportunities for ecological enhancement are identified with reference to national conservation priorities and local Biodiversity Action Plans (BAPs). Habitats were also assessed under the Statutory Biodiversity Metric Guidance[1] to inform the pre-development biodiversity value of the site in regard to Biodiversity Net Gain (BNG).

[1] https://www.gov.uk/guidance/biodiversity-net-gain

2 Methodology

2.1 Desktop Study

2.1.1 In order to compile background information on the site and its immediate surroundings Warwickshire Biological Records Centre (WaBRC) was contacted in December 2024. Data was requested from within a search area extending 2km from the centre of the site.

2.1.2 Information on statutory designations was obtained from the online Multi-Agency Geographic Information for the Countryside (MAGIC) database[2], which uses data provided by Natural England, from within a search area extending to 25km from the site. The MAGIC database was also searched to identify the known presence of any Priority Habitats within or adjacent the site.

2.1.3 In addition, the Woodland Trust database[3] was searched for any records of ancient, veteran or notable trees within or adjacent to the site.

2.1.4 The information received from these organisations is discussed in the text and reproduced where appropriate on Plan 6976/ECO2.

2.2 Habitat Surveys

2.2.1 The site was surveyed in January 2025 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. A second survey was conducted in July 2025 to ensure that appraisal of the habitats had been completed within the optimal botanical survey season and to complet Habitat Condition Assessment.

2.2.2 The surveys were informed by UK Habitat Classification methodology[4], with habitat types identified and mapped in accordance with the UK Habitat Classification system (version 2.01)[5], together with an assessment of the species composition of each habitat. This technique provides an inventory of the habitat types present and allows identification of areas of greater potential for botanical interest 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[6] to record details on the actual or potential presence of notable or legally protected species.

2.2.3 In line with guidance[4] the fine scale minimum mapping unit of 25sqm or 5m in length has been used.

2.2.4 The nomenclature used for plant species is based on the Botanical Society for the British Isles (BSBI) taxon list[7].

[2] Multi-Agency Geographic Information for the Countryside (MAGIC), at https://magic.defra.gov.uk/
[3] Woodland Trust Ancient Tree Inventory, at https://ati.woodlandtrust.org.uk/
[4] *The UK Habitat classification User Manual.* Version 1.1. 2020.
[5] UKHab Ltd (2023). *UK Habitat Classification Version 2.01* (at https://www.ukhab.org)
[6] Chartered Institute for Ecology and Environmental Management (CIEEM) (2013) *Guidelines for Preliminary Ecological Appraisal.*
[7] https://bsbi.org/taxon-lists

Habitat Condition Assessment

2.2.5 To determine the pre-development biodiversity value of the site for the BNG calculation, the condition of habitats has been assessed in accordance with the methodology set out in the Statutory Biodiversity Metric Technical Annex[8] and using professional judgement. Condition assessment data was collected during the January 2025 survey.

2.3 Faunal Surveys

2.3.1 General faunal activity was recorded on an encounter basis during the course of the surveys, such as mammals or birds observed visually or by call. Particular attention was paid to the potential presence of protected, rare or notable species, with specific survey work undertaken for, bats and Great Crested Newt *Triturus cristatus*, as described below.

Bats[9]

Preliminary Appraisal

2.3.2 A review was undertaken of the desk study information obtained to identify any known constraints in relation to bats, the bat species recorded and habitats likely to be used by bats within the site and the surrounding area. This included a review of background records, known designations including Special Areas of Conservation (SACs) or Sites of Special Scientific Interest (SSSIs) relevant to bats and an appraisal of OS mapping and aerial photography to identify habitats likely to be of value to bats.

2.3.3 An appraisal of the site's potential suitability for bats in relation to roosting habitats, potential flight-paths and foraging habitats (termed a 'daytime bat walkover') was completed separately to, but concomitantly with, the initial habitat survey, and the July 2025 survey for the extended red line boundary land to the east. Features were assessed for their potential suitability for roosting, foraging and commuting in accordance with industry standard methods[10]. This appraisal has informed the scope of the survey work undertaken as set out below.

Trees

2.3.4 Trees within the site, and within 20m of the red line boundary where accessiblem, were assessed for their suitability to support roosting bats based on the presence of features such as holes, cracks, splits or loose bark. Trees were categorised as supporting Potential Roost Features (PRFs), Further Assessment Required (FAR) or supporting no suitable features. Trees categorised as supporting PRFs or FAR were subject to a Ground Level Tree Assessment (GLTA) based on relevant guidance[10] with PRFs categorised as PRF-I (only suitable for individual or small numbers of bats) or PRF-M (suitable for multiple bats). Any PRFs identified were inspected using binoculars from ground level for any signs indicating possible use by bats, such as staining, scratch marks or bat droppings.

[8] *Statutory Biodiversity Metric - Technical Annex 1 - Condition Assessment Sheets and Methodology*

[9] Surveys based on: Reason, P.F. and Wray, S. (2023) UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats. CIEEM; and Bat Conservation Trust (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn).

[10] Bat Conservation Trust (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn).

Badger (*Meles meles*)[11]

2.3.5 During the initial habitat survey, the potential suitability of the site habitats for Badger was investigated. This included recording evidence of Badger setts and other signs of Badger activity such as well-worn paths and push-throughs, snagged hair, footprints, latrines and foraging signs on an encounter basis. Subsequently, badger activity surveys were completed in June and July 2025. The findings of the badger survey are presented in confidential badger appendix report.

Great Crested Newt (*Triturus cristatus*)

2.3.6 As a first step in assessing the possible presence of Great Crested Newt at the site, Ordnance Survey mapping and satellite imagery were examined to identify water bodies within 500m of the site boundary.

2.3.7 Guidance set out within Natural England's Method Statement template, to be used when applying for a Great Crested Newt development licence, states that surveys of ponds within 500m of the site boundary are only required *"when all of the following conditions are met: (a) maps, aerial photos, walk-over surveys or other data indicate that the pond(s) has potential to support a large great crested newt population, (b) the footprint contains particularly favourable habitat, especially if it constitutes the majority available locally, (c) the development would have a substantial negative effect on that habitat, and (d) there is an absence of dispersal barriers."*

2.3.8 Given that, in this instance, few of the conditions listed above are applicable to the site, it is considered that survey of ponds within 500m of the site boundary is not required, and that survey of ponds within 250m[12], where accessible, represents adequate survey effort.

Habitat Suitability Index (HSI)

2.3.9 Where access was available, identified ponds were then subject to a Habitat Suitability Index (HSI) assessment[13]. The HSI is used to assess the likely suitability of water bodies to support Great Crested Newt. The HSI is a score derived from ten component factors that are each scored separately according to the standard method. These are:

- *SI1 Location.* The location of the water body within Great Britain;
- *SI2 Pond area.* The size of the water body;
- *SI3 Permanence.* How often the water body dries out;
- *SI4 Water Quality.* The water quality, based primarily on invertebrate diversity;
- *SI5 Shade.* The percentage of the perimeter of the water body that is shaded;
- *SI6 Fowl.* The presence or absence of water fowl;
- *SI7 Fish.* The presence or absence of fish;
- *SI8 Pond Count.* The number of water bodies within 1km of the surveyed water body (not counting those on the far side of major barriers such as roads);

[11] Based on: Mammal Society (1989) Occasional Publication No. 9 – Surveying Badgers

[12] 250m is the typical maximum migratory range of this species, see English Nature (2004) '*An assessment of the efficiency of capture techniques and the value of different habitats for the great crested newt* Triturus cristatus'. English Nature Research Report 576

- *SI9 Terrestrial.* The quality of terrestrial habitat surrounding the water body; and
- *SI10 Macrophytes.* The percentage cover of the surface area of the water body by macrophytes (aquatic plants).

2.3.10 The overall HSI is then determined by combining scores for the above criteria into an equation devised by Oldham *et al*. (2000)[13]. The HSI score corresponds with a measure of the suitability of the water body to support Great Crested Newt of either 'poor', 'below average', 'average', 'good' or 'excellent'. For each category of suitability, the proportion of ponds which are anticipated to support Great Crested Newt[Error! Bookmark not defined.3] is shown in T able 2.1 below.

Table 2.1. HSI Pond Predicted Presence.

Pond Category	Proportion of ponds of this category anticipated to support GCN
Poor	3%
Below Average	20%
Average	55%
Good	75%
Excellent	93%

2.3.11 The HSI study was undertaken in line with the guidelines developed by Oldham *et al.* and subsequently adapted by ARG UK (2010)[14]. A suitably experienced ecologist undertook the assessment, informed by desktop research and a site survey conducted on 9th January 2025.

Environmental DNA (eDNA)

2.3.12 Water samples were taken for eDNA analysis to investigate the presence/absence of Great Crested Newt within off-site pond, P1. Water samples were collected on 25 June 2025 following the procedure outlined in the methods manual prepared for DEFRA by Biggs *et al*. (2014)[15]. The survey fell within the acceptable seasonal window set out by Natural England (15 April to 30 June inclusive)[16]. Samples were collected by suitably trained Aspect Ecology staff. The water samples were sent for laboratory analysis which was conducted by Cellmark in accordance with the procedure set out by Biggs *et al.* (2014).

2.4 Survey Constraints and Limitations

2.4.1 Not all the species that occur in each habitat will necessarily be present or detectable during survey work carried out at any given time of the year, since different species are apparent during different seasons.

2.4.2 The initial habitat survey was undertaken outside the optimal season. However, the broad habitat types present within the site were able to be identified sufficiently for the purpose

[13] Oldham RS, Keeble J, Swan MJS & Jeffcote M (2000) *Evaluating the suitability of habitat for the Great Crested Newt (Triturus cristatus).* Herpetological Journal 10 (4), 143-155

[14] Amphibian & Reptile Groups of the UK (2010) ARG UK Advice Note 5: Great Crested Newt Habitat Suitability Index

[15] Biggs J., Ewald N., Valentini A., Gaboriaud C., Griffiths R.A., Foster J., Wilkinson J., Arnett A., Williams P. and Dunn F. (2014). *Analytical and methodological development for improved surveillance of the Great Crested Newt. Appendix 5. Technical advice note for field and laboratory sampling of great crested newt (*Triturus cristatus*) environmental DNA*. Freshwater Habitats Trust, Oxford.

[16] Natural England (2015) Great crested newts: surveys and mitigation for development projects. Standing advice for local planning authorities who need to assess the impacts of development on great crested newts. Viewed at www.gov.uk on 24/12/2015.

of this report, and to enable an adequate assessment of the intrinsic ecological interest of the site to be made. The subsequent habitat and condition assessment surveys undertaken in July 2025 were conducted within the optimal botanical survey season and consequently it is considered that there is no limitation to the quality of the survey data collected.

2.4.3 Note was made of any invasive species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) that were observed during surveys. However, because the detectability of such species varies according to factors such as the time of year or site management regime, the absence of invasive species should not be assumed even if no such species were recorded during the surveys undertaken.

2.4.4 Direct access to pond **P2** was not possible, but the pond was visible from nearby vantage points. However, this placed limitations on the ability to directly appraise water quality. Access was not possible to survey ponds **P3** and **P4**. As such, HSI surveys of these ponds were not able to be undertaken.

2.4.5 Dense scrub vegetation is present within the site, which limited the potential to record field evidence of mammals within these areas. Evidence of mammal push-throughs and paths were recorded at some of the scrub margins, and evidence suggestive of the presence of mammal burrows was noted in other areas, but due to the dense vegetation could not be investigated further. Specific badger activity surveys were completed in June and July 2025 and survey specific limitations are described in the confidential annex report.

2.4.6 All references to a hedgerow's potential to qualify as "important" *sensu* the Hedgerow Regulations (1997) refer solely to wildlife and landscape criteria. This document does not assess whether a hedgerow would qualify under the archaeology and history criteria. A formal Hedgerow Regulations assessment has not been conducted.

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)[17], which identifies 'important ecological features' within a defined geographical context (i.e. international, national, regional, county, district, local or site importance). Further details are provided at Appendix 6976/1.

2.6 Relevant Planning Policy

National Policy Approach to Biodiversity in the Planning System

2.6.1 The National Planning Policy Framework (NPPF)[18] 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[19].

[17] CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine, ver. 1.3 (updated September 2024)

[18] Ministry of Housing, Communities & Local Government (2024) *National Planning Policy Framework*

[19] ODPM (2006) Circular 06/2005: Planning for Biodiversity and Geological Conservation – A Guide to Good Practice

2.6.2 NPPF takes forward the Government's strategic objective to halt overall biodiversity loss[20], as set out at Paragraph 187, 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 and incorporating features which support priority or threatened species such as swifts, bats and hedgehogs*'

2.6.3 The approach to dealing with biodiversity in the context of planning applications is set out at Paragraph 193:

'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 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[21], which sets out 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

[20] DEFRA (2011) Biodiversity 2020: A strategy for England's wildlife and ecosystem services

[21] British Standards Institution (2013) Biodiversity – Code of practice for planning and development, BS 42020:2019

- **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 type and scale of the proposed development (BS 42020:2019, section 5.5).

Local Policy

2.6.6 Rugby Borough Council's Local Plan 2011-2031[22], adopted in June 2019 outlines the Council's vision and strategy for the Borough. The Local Plan contains the following policies which are relevant to biodiversity and ecology:

- Policy NE1 (Protecting Designated Biodiversity and Geodiversity Assets)
- Policy NE2 (Strategic Green and Blue Infrastructure)
- Policy NE3 (Landscape Protection and Enhancement)
- Policy SDC2 (Landscaping)
- Policy SDC7 (Protection of the Water Environment and Water Supply)

3 Ecological Designations

3.1 Statutory Designations

3.1.1 The statutory designations of ecological importance that occur within the local area around the site are shown on Plan 6976/ECO2.

3.1.2 The nearest statutory nature conservation designations to the site are Linnel Road Local Nature Reserve (LNR) and Ashlawn Cutting LNR, both approximately 0.7km to the south and west of the site respectively. The Linnel Road LNR is designated on the basis of open grassland, scrub areas, mature trees, riverside, wetlands and a willow copse. Ashlawn Cutting LNR is designated on the basis of its '*steep sided disused railway cutting consisting of limestone grassland with scrub, with 24 butterfly species and diverse sightings of birds'*. Ashlawn Cutting is reported as supporting many plants normally associated with unimproved grassland and hay meadows, including Green Winged Orchid *Anacamptis morio*, and Yellow Rattle *Rhinanthus minor*. The pools present support frogs, toads and newts as well as dragonflies.

3.1.3 There are no other statutory designated wildlife sites within 2km of the application site.

3.1.4 The nearest European designation is Ensor's Pool Special Area of Conservation (SAC), approximately 22.5km north-west of the site, and is designated on the population of White-clawed Crayfish *Austropotamobius pallipes*, it supports. There are no hydrological linkages between the application site and Ensor's Pool SAC.

[22] Rugby Borough Council (2019). '*Local Plan 2011-2031*.'

3.1.5 Natural England has developed Impact Risk Zones (IRZs) as an initial tool to help assess the risk of developments adversely affecting Sites of Special Scientific Interest (SSSIs), taking into account the type and scale of developments. The site sits within an IRZ in relation to Cave's Inn Pits SSSI, located 3.4km north of the site. However, this IRZ does not relate to residential development.

Assessment of Proposals

3.1.6 The site itself is not subject to any statutory nature conservation designations. All statutory ecological designations in the surrounding area are well separated from the site by distance and/or existing development and given the type and scale of the proposals, these designations are highly unlikely to be affected.

3.2 Non-statutory Designations

3.2.1 The non-statutory designations of nature conservation interest that occur within the local area are shown on Plan 6976/ECO2.

3.2.2 The nearest non-statutory nature conservation designation to the site is Clifton Brook Local Wildlife Site (LWS) which is located approximately 0.3km south of the site. This LWS is designated on the basis that streams such as Clifton Brook are important wildlife corridors and Water Vole *Arvicola amphibius,* may be present on the brook. The River Avon has had Otter *Lutra lutra,* recorded at various points along its length and there is a chance that the species is using this tributary as well.

3.2.3 The nearest proposed non-statutory nature conservation designation to the site is Oxford Canal: A426 to Hillmorton proposed LWS which is located approximately 0.2km south of the site.

Assessment of Proposals

3.2.4 The site itself is not subject to any non-statutory nature conservation designations. All non-statutory designations in the surrounding area are well separated from the site by existing development and given the type and scale of the proposals, these designations are unlikely to be affected.

3.3 Priority Habitats, Ancient Woodland and Notable Trees

3.3.1 There are no records of any ancient woodland, notable or veteran trees within or adjacent to the site.

3.4 Summary

3.4.1 The site itself is not subject to any statutory or non-statutory ecological designations and all statutory and non-statutory sites in the local area are considered sufficiently physically separated from the application site that it is unlikely that they 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 were included within the information returned from the Local Records Centre.

4.1.2 Records of Priority Species were returned from WaBRC within the wider 2km search area. However, the habitats recorded within the site were considered unsuitable to support any of these notable species.

4.2 Overview

4.2.1 The locations of habitat types and features within the site are indicated on Plan 6976/ECO3.

4.2.2 The site is dominated by a single arable field sown with a *Brassica* crop (c1d – non-cereal crops), narrow field margins (1m to 2m wide) comprising g4 modified grassland, areas of h3h mixed scrub and h3d bramble scrub and a dirt track (u1c Artificial unvegetated, unsealed surface). The proposed drainage swale extending from the south-eastern corner of the site passes through two other arable fields. Along the site boundary were eleven h2a native hedgerows, two h2b non-native ornamental hedgerows and an adjacent off-site tree line behind a wire fence.

4.3 Habitat Descriptions and Evaluation

4.3.1 The habitats and ecological features present within the site are described in Table 4.1 overleaf. This table sets out their UK Habitat Classification Primary Habitat and Secondary Codes, and the corresponding habitat type and condition according to the Statutory Biodiversity Metric. The table also indicates whether these habitats constitute an important ecological feature and sets out their level of importance on a geographic scale, taking into account the status of habitat types and the presence of rare plant communities or individual plant species of elevated interest. The value of habitats for the fauna they may support is considered separately in Chapter 5 below. More detailed survey results of the hedgerows are provided at Appendix 6976/3, and details of the habitat condition assessments are provided at Appendix 6976/4.

Table 4.1a. Habitat Descriptions and Evaluation – Area and Linear Terrestrial Habitats

Ref	UK Hab Primary Habitat/ Secondary Codes*	Statutory Biodiversity Metric Habitat Type and Condition	Description	Evaluation
F1	c1c non-cereal crops	Cropland: non-cereal crops (condition assessment N/A)	The site primarily comprises a single arable field, labelled F1 on Plan 6976/ECO3. The field was planted with a *Brassica* sp. crop during the time of the survey in January 2025. Limited non-crop species were present, but Groundsel *Senecio vulgaris*, was abundant within the field. Associated with the arable land are grass margins which are narrow and measure approximately 1m to 2m wide. Species present within the field margins include Cock's-foot *Dactylis glomerata*, False Oat-grass *Arrhenatherum elatius*, Perennial Rye-grass *Lolium perenne*, Italian Rye-grass *Lolium multiflorum*, Common Nettle *Urtica dioica*, Hogweed *Heracleum sphondylium*, Burdock *Arctium* sp., Cleavers *Galium aparine,* and Broad-leaved Dock *Rumex obtusifolius.* Whilst the constraints of the season are noted, the grassland margins were appraised as being g4 modified grassland, due to their low species-diversity and anthropogenically influenced character. Small areas of scrub, below the 25m^2 minimum mapping unit, were noted around the margins of F1, largely consisting of Elder *Sambucus nigra,* Hawthorn and Blackthorn.	Does not form important ecological feature
S1	h3h Mixed scrub	Heathland and shrub: Mixed scrub (poor condition)	An established area of scrub is present in the west of the site. Species present include Ash *Fraxinus excelsior,* Broom *Cytisus scoparius,* Butterfly-bush *Buddleja davidii,* Blackthorn *Prunus spinosa,* Bramble *Rubus fruticosus agg.,* Honeysuckle *Lonicera periclymenum,* Hawthorn *Crataegus monogyna,* Honesty *Lunaria annua* and Garden Privet *Ligustrum ovalifolium.* Within S1 a debris pile is present, formed of telegraph poles. The scrub is dominated by non-native and introduced species.	Does not form important ecological feature
S2	h3h Mixed scrub	Heathland and shrub: Mixed scrub (moderate condition)	An area of mixed scrub is also present to the south of the site along the site boundary, extending off-site. Woody species present within the scrub included Elder, which dominated the scrub, Hawthorn and Holly *Ilex aquifolium.* Other species present were Hogweed *Heracleum sphondylium*, Common Nettle, Burdock., Cleavers, and Broad-leaved Dock.	Does not form important ecological feature
-	h3d Bramble Scrub	Heathland and shrub: Bramble scrub	An area of bramble scrub is present to the south of the site, adjacent to both sides of the unsealed track that travels along the southern boundary of the site to building B1.	Does not form important ecological feature

Ref	UK Hab Primary Habitat/ Secondary Codes*	Statutory Biodiversity Metric Habitat Type and Condition	Description	Evaluation
		(condition assessment N/A)	A further area of bramble scrub is also present in the south-western corner of the site.	
-	u1c Artificial unvegetated, unsealed surface (dirt track)	Urban: Artificial unvegetated, unsealed surface (condition assessment N/A)	A dirt track is present along the south of the site connecting building B1 to Rugby Road to the west of the site. The track predominantly comprises compacted earth, with sections having been reinforced with hardcore and other rubble.	Does not form important ecological feature
T1	200 (trees)	Rural tree (good condition)	Tree T1 was recorded within the east of the site along hedgerow H1. T1 is an Ash tree recorded as having several PRFs for bats with further assessment required. Features observed from a GLTA included a woodpecker hole and tear on the western side of the tree, with the eastern side of the tree being almost completely hollow.	Potential to form important ecological feature
T2	200 (trees)	Rural tree (good condition)	Tree T2 was recorded within the east of the site along hedgerow H1. T2 is an Ash tree recorded as having PRFs for bats with further assessment required. Features observed from a GLTA included a tear.	Potential to form important ecological feature
T3	200 (trees)	Rural tree (good condition)	Tree T3 was recorded off-site adjacent to the south of the site. T3 is an Ash tree recorded as having PRFs for bats with further assessment required. Features observed from a GLTA included a tear.	Potential to form important ecological feature

** Habitat types not listed as a primary habitat are indicated in brackets*

Table 4.1b. Habitat Descriptions and Evaluation – Hedgerows/Line of Trees

Ref	UK Hab Primary Habitat/ Secondary Codes*	Statutory Biodiversity Metric Habitat Type and Condition	Description	Evaluation
H1	h2a native hedgerow	Native hedgerow (poor condition)	From a preliminary appraisal hedgerow H1 is assessed not to qualify as an important hedgerow under the Hedgerows Regulations 1997, as it has insufficient diversity of woody species. However, it is assessed to qualify as a Priority Habitat based on the standard definition[23], 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. At the time of the survey H1 was in a poor condition having been recently flayed to a box shape 1.5m in height. H1 is defunct. Species present within the hedgerow included Elder, which dominated the majority of the hedgerow length, Hawthorn, Holly, and Ash. Ground flora present include Hogweed, Common Nettle, Burdock *sp.*, Cleavers, Bramble, Ivy *Hedera helix*, Broad-leaved Dock, Cock's-foot, Perennial Rye-grass, False Oat-grass, and Italian Rye-grass.	Priority habitat, forms important ecological feature (site value)
H2	h2a native hedgerow	Native hedgerow (moderate condition)	From a preliminary appraisal hedgerow H2 is assessed not to qualify as an important hedgerow under the Hedgerows Regulations 1997, due to it forming a residential curtilage and having an insufficient diversity of woody species. However, it is assessed to qualify as a Priority Habitat. At the time of the survey H2 had been recently flayed to a box shape 1.5 to 2m in height. Species present within the hedgerow included Ash and Butterfly-bush. Ground flora present was the same as H1.	Priority habitat, forms important ecological feature (site value)
H2a	h2a native hedgerow	Native hedgerow (good condition)	From a preliminary appraisal hedgerow H2a is assessed not to qualify as an important hedgerow under the Hedgerows Regulations 1997, due to it forming a residential curtilage and having an insufficient diversity of woody species. However, it is assessed to qualify as a Priority Habitat.	Priority habitat, forms important ecological feature (site value)

[23] Based on: Biodiversity Reporting and Information Group (2011) '*UK Biodiversity Action Plan (BAP) Priority Habitat Descriptions',* ed. Ant Maddock

Ref	UK Hab Primary Habitat/ Secondary Codes*	Statutory Biodiversity Metric Habitat Type and Condition	Description	Evaluation
			At the time of the survey H2a had been recently flayed to a box shape 1.5m in height. Species present within the hedgerow included Elder (d), Ash and Holly. Ground flora present was the same as H1.	
H3	h2a native hedgerow	Native hedgerow (good condition)	From a preliminary appraisal hedgerow H3 is assessed not to qualify as an important hedgerow under the Hedgerows Regulations 1997, due to it forming a residential curtilage and having an insufficient diversity of woody species. However, it is assessed to qualify as a Priority Habitat. At the time of the survey H3 had no evidence of being recently managed reaching approximately 5m in height. Species present within the hedgerow included Yew sp., and Ivy. Ground flora present was the same as H1.	Priority habitat, forms important ecological feature (site value)
H4	h2a native hedgerow	Native hedgerow (good condition)	From a preliminary appraisal hedgerow H4 is assessed not to qualify as an important hedgerow under the Hedgerows Regulations 1997, due to it forming a residential curtilage and having an insufficient diversity of woody species. However, it is assessed to qualify as a Priority Habitat. At the time of the survey H4 had no evidence of being recently managed reaching approximately 1.5m in height. Species present within the hedgerow included Elder, Blackthorn, Beech *Fagus sylvatica*, and Dogwood *Cornus sanguinea.* Ground flora present was the same as H1.	Priority habitat, forms important ecological feature (site value)
H7	h2a native hedgerow	Native hedgerow (good condition)	From a preliminary appraisal hedgerow H7 is assessed not to qualify as an important hedgerow under the Hedgerows Regulations 1997, due to insufficient diversity of woody species. However, it is assessed to qualify as a Priority Habitat. At the time of the survey H7 appeared heavily managed into a box shape approximately 1.25m in height. Species present within the hedgerow included Hawthorn. Ground flora present was the same as H1 with the addition of Yarrow *Achillea millefolium.*	Priority habitat, forms important ecological feature (site value)
H8	h2a native hedgerow	Native hedgerow (good condition)	From a preliminary appraisal hedgerow H8 is assessed not to qualify as an important hedgerow under the Hedgerows Regulations 1997, due to insufficient diversity of woody species. However, it is assessed to qualify as a Priority Habitat.	Priority habitat, forms important

Ref	UK Hab Primary Habitat/ Secondary Codes*	Statutory Biodiversity Metric Habitat Type and Condition	Description	Evaluation
			At the time of the survey H8 appeared unmanaged, approximately 1.5m in height. Species present within the hedgerow included Blackthorn, Elm *Ulmus laevis*, Spruce sp., Ash and Holly. Ground flora present was the same as H1.	ecological feature (site value)
H10	h2a native hedgerow	Native hedgerow (moderate condition)	From a preliminary appraisal hedgerow H10 is assessed not to qualify as an important hedgerow under the Hedgerows Regulations 1997, due to insufficient diversity of woody species. However, it is assessed to qualify as a Priority Habitat. At the time of the survey H10 appeared heavily managed, flayed into a box shape, approximately 2.5m in height. H10 is defunct. Species present within the hedgerow included Elder and Hawthorn. Ground flora present was the same as H1.	Priority habitat, forms important ecological feature (site value)
H5	h2b non-native and ornamental hedgerow	Non-native and ornamental hedgerow (poor condition)	From a preliminary appraisal hedgerows H5 and H6 are assessed not to qualify as an important hedgerow under the Hedgerows Regulations 1997 or as a Priority Habitat. These hedgerows form residential curtilage. At the time of the survey both hedgerows H5 and H6 consisted of non-native Cypress sp. H5 appeared largely unmanaged on the site side reaching approximately 1.5m in height, whereas H6 is managed to a box shape approximately 2.25m in height.	Does not form important ecological feature
H6	h2b non-native and ornamental hedgerow	Non-native and ornamental hedgerow (poor condition)		
TL1	g4, 33 modified grassland, line of trees	Line of trees (poor condition)	A line of trees, TL1, is present immediately outside and overhanging the northern site boundary with the Clifton Upon Dunsmore playing fields. The off-site trees are semi-mature to mature in age and species present include Horse-chestnut *Aesculus hippocastanum,* Sycamore *Acer pseudoplatanus,* Beech, and Ash. The trees grow within g4 modified grassland that is intensively managed as part of the playing field management.	Forms important ecological feature (Site value)
H11	h2a native hedgerow	Native hedgerow (good condition)	From a preliminary appraisal the hedgerow adjacent to the south of the proposed pipeline is assessed not to qualify as an important hedgerow under the Hedgerows Regulations 1997, due to insufficient diversity of woody species. However, it is assessed to qualify as a Priority Habitat. Species present within the hedgerow included Hawthorn, Dogwood and Elder. Ground flora present was the same as H1.	Priority habitat, forms important ecological feature (site value)

Ref	UK Hab Primary Habitat/ Secondary Codes*	Statutory Biodiversity Metric Habitat Type and Condition	Description	Evaluation
H12	h2a native hedgerow	Native hedgerow (good condition)	From a preliminary appraisal the hedgerow containing tree T4 through which the pipeline is proposed to cut through is assessed not to qualify as an important hedgerow under the Hedgerows Regulations 1997, due to insufficient diversity of woody species. However, it is assessed to qualify as a Priority Habitat. Species present within the hedgerow included Hawthorn and Elder, with ground flora present was the same as H1.	Priority habitat, forms important ecological feature (site value)
H13	h2a native hedgerow	Native hedgerow (good condition)	From a preliminary appraisal the hedgerow adjacent to the south-eastern boundary of the site adjacent to the proposed swale is assessed not to qualify as an important hedgerow under the Hedgerows Regulations 1997, due to insufficient diversity of woody species. However, it is assessed to qualify as a Priority Habitat. Species present within the hedgerow included Elder and Hawthorn. Ground flora present was the same as H1.	Priority habitat, forms important ecological feature (site value)

** Habitat types not listed as a primary habitat are indicated in brackets*

4.4 Priority Habitats

4.4.1 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 BAP, which continue to be regarded as priority habitats under the subsequent country-level biodiversity strategies.

4.4.2 Of the habitats within the site, the h2a native hedgerows are considered to qualify as Priority Habitats and therefore constitute important ecological features at the site level (see Table 4.1b above). However, at the time of the survey, hedgerow **H1** was in a poor condition.

4.5 Irreplaceable Habitats

4.5.1 Irreplaceable habitats are now defined under The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024 and include blanket bog, lowland fens, limestone pavements, coastal sand dunes, ancient woodland, ancient trees and veteran trees, spartina saltmarsh swards and mediterranean saltmarsh scrub.

4.5.2 No irreplaceable habitats are present within the site.

4.6 Summary

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

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

Habitat	Level of Importance
Hedgerows	Site
Line of trees (off site)	Site

4.6.2 Other habitats present within the site include arable, scrub and bramble scrub. These habitats do not form intrinsically important ecological features.

4.7 Assessment of Proposals

4.7.1 The proposed development has followed the mitigation hierarchy approach as set out under the National Planning Policy Framework (NPPF), with consideration given first to avoidance, followed by mitigation and compensation.

4.7.2 In line with this hierarchy, habitats forming important ecological features are retained and enhanced under the proposals, avoiding significant habitat losses, with built development focused within areas of lower importance habitat including arable cropland. Losses of these habitats, not forming important ecological features, will be addressed as part of the overall balance of biodiversity net gain.

4.7.3 A discussion of effects and any requirements for mitigation or compensation in relation to individual habitats of ecological importance is set out below.

Hedgerows

4.7.4 All hedgerows will be protected during construction works in line with standard practice, as detailed further at Chapter 6. External lighting will be designed to minimise light spill onto the retained hedgerows.

Line of trees

4.7.5 The line of trees will be protected during construction works in line with standard practice, as detailed further at Chapter 6. External lighting will be designed to minimise light spill onto the tree line.

Other Development Impacts

4.7.6 Standard measures will be implemented to minimise construction effects such as dust deposition and surface run-off of contaminants or silt, whilst implementation of a drainage strategy as part of the completed development will safeguard water quality in the long-term. Ongoing management of retained habitats and open spaces will allow for management of recreational activity to minimise disturbance to sensitive habitats and wildlife. Further detail is set out at Chapter 6 below.

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 particular attention paid to the potential presence of protected or notable species. Specific survey work was undertaken in respect of bats and Great Crested Newt, the results of which are set out below. Field evidence of other fauna species was recorded on an encounter basis, and a general appraisal of the habitats to support fauna species was made.

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 BAP, which continue to be regarded as Priority Species under the subsequent country-level biodiversity strategies.

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 6976/2). 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. Several bat species are also 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 local biological records centre includes records of Brown Long-eared bat *Plecotus auritus*, Daubenton's *Myotis daubentonii*, Natterer's *Myotis nattereri*, Noctule *Nyctalus noctula*, and Pipistrelle bat species *Pipistrelle* sp. within 2km of the site. The closest record is for an unidentified bat, recorded in 2011, located approximately 0.2km north of the site boundary.

Survey Results and Evaluation

Preliminary Appraisal

5.3.3 As detailed above, records of bats have been returned from within the surroundings of the site. These species are largely typical given the region and the types of habitats present in the wider area of the site. The desk study does not indicate any ecological designations within 10km of the site which are identified for their bat interest.

5.3.4 Habitats within the wider area of the site largely comprise open farmland and the town of Rugby. A network of hedgerows extends from the site, providing limited connectivity to the wider area. The foraging habitat potential for bats is considered to be low, as the site is dominated by arable crops that are typically sprayed with pesticides, and support a low invertebrate biomass.

5.3.5 Within and directly adjacent to the site, eight trees have been identified as potentially suitable to support roosting bats, detailed further below. A preliminary assessment of habitats in terms of their likely value for foraging and commuting bats is set out in Table 5.1 below.

Table 5.1. Assessment of the importance of habitats within the site for foraging and commuting bats

Commuting (potential flight-paths)	Foraging habitats
The site is surrounded by intensively managed hedgerows, with large field sizes. However, the hedgerow network forms continuous habitat that is connected to the wider landscape, so is considered to have moderate potential suitability for commuting.	The site is dominated by a single large field of intensive arable crop, with small associated patches of scrub. The site hedgerows are predominantly intensively managed and species-poor. The site is considered highly unlikely to be critical to the maintenance of any local bat population, particularly in light of the prevalence of surrounding higher quality foraging habitat including woodland, waterbodies, watercourses and small pasture fields.

Roosting – Trees

Assessment of Roosting Potential

5.3.6 All trees within and immediately adjacent to the site were subject to an initial assessment for their suitability to support roosting bats. Trees which were categorised as supporting PRFs or as FAR were then subject to a ground level tree assessment (GLTA). These trees are indicated on Plan 6976/ECO3. The results of this assessment are summarised in Table 52 below. None of the PRFs recorded could be accessed from the ground and internal inspection could not be undertaken.

Table 5.2 Tree assessment results

Tree Ref.	Species	Assessment and potential roosting features	Summary
T1	Ash	Tear and woodpecker hole on western side of main trunk, the east side of the tree is hollow	PRF-M (FAR)
T2	Ash	Tear approximately 3.5m heigh on west side of main trunk	PRF-I (FAR)
T3	Ash	Tear on northern side of main trunk. Tree inaccessible, potential for other features on inaccessible side.	PRF-I (FAR)
T4	Ash	Dense ivy cover	FAR
T5	Ash	Woodpecker hole on north-western extent	PRF-M (FAR)
T6	Ash	Limb tear on south-eastern extent	PRF-M (FAR)
T7	Ash	Dense ivy cover	FAR
T8	Oak	Lifted bark	PRF-I (far)

Tree Ref.	Species	Assessment and potential roosting features	Summary
T1	Ash	Tear and woodpecker hole on western side of main trunk, the east side of the tree is hollow	PRF-M (FAR)
T2	Ash	Tear approximately 3.5m heigh on west side of main trunk	PRF-I (FAR)
T3	Ash	Tear on northern side of main trunk. Tree inaccessible, potential for other features on inaccessible side.	PRF-I (FAR)
T4	Ash	Dense ivy cover	FAR
T5	Ash	Woodpecker hole on north-western extent	PRF-M (FAR)
T6	Ash	Limb tear on south-eastern extent	PRF-M (FAR)
T7	Ash	Dense ivy cover	FAR
T8	Oak	Lifted bark	PRF-I (FAR)

Roosting – Buildings

Assessment of Roosting Potential

5.3.7 A single building, labelled **B1** on Plan 6976/ECO3, is present within the site. During the survey the building was subject to an external inspection for PRFs. The building was in a damaged condition with numerous missing roof and wall panels, and was bright and draughty inside. The structural integrity of the building was uncertain, and the building was filled with agricultural machinery and stores. Therefore, a detailed internal inspection for bats was not conducted for health and safety reasons, but views into the building from the exterior were available.

5.3.8 The building was of half-height concrete panel wall construction, roofed and half-clad in corrugated cement-composite panelling (potentially asbestos containing material). It is considered that the building has negligible potential to support any significant bat roosts.

Assessment of Proposals

Roosting

Trees

5.3.9 It is understood that all mature trees within the site, including those described above with PRFs, are to be retained within the proposals. The site layout and landscaping have been designed to retain and enhance all the hedgerows, and a bat sensitive lighting scheme will be designed to prevent light spill onto any of the hedgerows or trees with identified PRFs. Therefore, there is considered to be no significant risk of direct or indirect impact to the PRFs, and no potential risk of loss of tree roosts.

5.3.10 *Buildings*

5.3.11 It is understood that the single building within the site, which is appraised as having negligible potential to support significant bat roosts, is to be removed under the proposals. As such, subject to the implementation of the recommendation outlined at Chapter 6 below in relation to roof removal, it is considered that bats will be fully safeguarded under the proposals.

Foraging and Commuting

5.3.12 The majority of the site is considered to be of negligible importance for foraging, being comprised of intensive arable crop and likely to support only a limited biomass of invertebrate prey. The hedgerows bordering the site offer potential commuting routes for bats, and are assessed to be of moderate suitability.

5.3.13 All potential commuting routes around the site will be maintained and enhanced through reinforcement planting of the hedgerows with native species. The development proposals will also incorporate large areas of species-rich other neutral grassland, scrub and wet grassland (associated with drainage features) which, combined with the cessation of the application of pesticides, will improve the quality of the foraging habitat at the site (Plan 6976/BNG2).

5.3.14 The removal of the small section of non-native and garden escape dominated mixed scrub near the proposed site access will be compensated for through the planting of areas of native scrub. New hedgerow and shrub planting and the creation of wildflower grassland and drainage features will improve connectivity and increase the foraging quality of the site. Accordingly, subject to the implementation of the recommendations outlined at Chapter 6 below in relation to lighting, it is considered that the population status of local bat populations can be fully safeguarded under the scheme, with the potential for enhancement at a local level.

5.4 Badger

5.4.1 **Legislation.** Badger receives legislative protection under the Protection of Badgers Act 1992 (see Appendix 6976/2), and as such should be assessed as an important ecological feature. The legislation aims to protect this species from persecution, rather than being a response to an unfavourable conservation status, as the species is in fact common over most of Britain.

5.4.2 Licences can be obtained from Natural England for development activities that would otherwise be unlawful under the legislation. The types of activity that should be licensed are described in the relevant best practice guidance. [24, 25]

5.4.3 **Background Records**. No specific records of Badger from within 2km the site were returned from the desktop study.

5.4.4 **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.** Several other mammal species including Water Vole and Otter receive full protection under the Wildlife and Countryside Act 1981 (as amended). Otter is also a European Protected Species under the Conservation of Habitats and Species Regulations 2017 (as amended), whilst both Water Vole and Otter are S41 Priority Species.

5.5.2 Other UK mammal species do not receive direct legislative protection relevant to development activities but may receive protection against acts of cruelty (for example,

[24] English Nature (2002) *Badgers and Development*

[25] Natural England (2011) Badgers and Development: A Guide to Best Practice and Licensing, Interim Guidance Document

under the Wild Mammals (Protection) Act 1996). In addition, a number of these mammal species including Hedgehog, Brown Hare and Harvest Mouse are S41 Priority Species and should be assessed as important ecological features.

5.5.3 **Background Records.** No specific records of other mammals from within or adjacent to the site were returned from the desktop study. Records of European Otter, (Priority Species) were returned by the desk study. The closest record for Otter was located approximately 120m south of the site, dated 2015.

5.5.4 **Survey Results and Evaluation.**

5.5.5 The site contains no suitable habitat for Otter, comprising largely of arable cropland and is located approximately 188m from the nearest watercourse, with Houlton Way providing a limited barrier between the canal and the majority of the site.

5.5.6 The desktop study returned records of Brown Hare and Hedgehog. Hedgehog and Brown Hare are Priority Species, despite being relatively common and widespread in England. The site contains habitats that may be used by these species, although given the small size of the site Brown Hare and Hedgehog are assessed as being of potential importance at a site level only. Crops are considered to be poor quality habitat for Hedgehog, due to the typically low levels of invertebrate biomass. No evidence of any other protected, rare or notable mammal species was recorded from within the site. Other mammal species likely to use the site, such as Fox *Vulpes vulpes*, remain common in both a local and national context, and do not receive specific legislative protection in a development context. Such species are not a material planning consideration and the loss of habitats used by these species to the proposals is of negligible significance.

5.5.7 **Assessment of Proposals.** Habitat losses arising from the proposals are not considered likely to have significant effects on Otter, Brown Hare or Hedgehog. For Hedgehog, habitat losses would be offset by the provision of new gardens and open space, with the open space providing higher quality foraging than the current crop field. Precautionary safeguards are recommended to minimise the risk of harm to other mammals that may be present. Enhancement measures to maintain habitat connectivity for Hedgehog are recommended, as set out in Chapter 6 below.

5.6 Amphibians

5.6.1 **Legislation.** All British amphibians 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 listed as a European Protected Species under the Conservation of Habitats and Species Regulations 2017 (as amended). As such, both Great Crested Newt and habitats used by this species are afforded protection (see Appendix 6976/2). Great Crested Newt is also a S41 Priority Species, as are Common Toad *Bufo bufo*, Natterjack Toad *Epidalea calamita*, and Pool Frog *Pelophylax lessonae*. As such, these species should be assessed as important ecological features.

5.6.2 **Background Records.** No records of any amphibians from within or adjacent to the site were returned by the desktop study. Records of Great Crested Newt, Common Toad, (both Priority Species) and Common Frog *Rana temporaria*, were returned from the wider area, with the closest record of Great Crested Newt from a location approximately 1.6km north of the site.

5.6.3 **Survey Results and Evaluation.** Four waterbodies were identified within 250m of the site boundary (see Plan 6976/ECO4). Of the four ponds, **P1** was accessible and **P2** could be

viewed from vantage points, allowing for a precautionary HSI assessment to be undertaken. Access was not possible to survey ponds **P3** and **P4**. The HSI survey was undertaken outside the optimal season such that some aquatic vegetation may not have been visible. Therefore, a precautionary approach was taken, supported by aerial photography, to enable an adequate assessment of the ponds to be made. The eDNA survey of pond P1 was undertaken in June 2025 within the acceptable survey window. Further details of the survey method and analysis can be found in the accompanying Habitat Suitability Index Assessment and eDNA Analysis report.

5.6.4 Guidance set out within Natural England's Method Statement template, to be used when applying for a Great Crested Newt development licence, is described at Section 2.3.7. Given that more suitable habitats are present within the nearby surrounds of these ponds and the presence of dispersal barriers including roads and residential development, it is concluded that survey of ponds over 250m of the site boundary is not required.

5.6.5 Pond P1 is located approximately 70m north of the closest part of the red line boundary, which relates to the proposed creation of a drainage ditch and swale, and approximately 300m east of the main developable area of the site (Plan 6976/BNG2). The pond is surrounded to the north, south and west by arable, with permanent pasture and a small copse of woodland bounding the pond to the east. Pond 2 appears to be used, or to have been used, as a fishing pond as evidence of fishing platforms was recorded.

5.6.6 P2 is located on the opposite side of Houlton Way road to the site, approximately 110m from the boundary to the proposed drainage swale, and 195m to the main developable footprint (Plan 6976/ECO4). P2 appears to have been created in 2019, as a sustainable drainage feature for the construction of Houlton Way road, from a review of historic aerial photography and online resources. P2 is bound by Houlton Way road to the north, Oxford Canal to the south and grassland to the east and west, and is considered separated from the application site by physical barriers.

5.6.7 Access was not possible to ponds P3 and P4. However, from reviewing aerial photography both ponds appear to be connected to the disused railway which passes the south-west of the site approximately 50m from the site boundary. The disused railway provides a traversable habitat corridor for Great Crested Newt to the site from P3 and P4 approximately 230m and 250m in length respectively.

5.6.8 HSI scores were calculated for each pond, to initially investigate their likely suitability to support Great Crested Newt. The results are set out in Table 5.3 below.

Table 5.3. HSI survey results.

Pond	Suitability Indices										HSI Score	Suitability
	SI 1 Location	**SI 2** Pond Area	**SI 3** Pond Drying	**SI 4** Water Quality	**SI 5** Shade	**SI 6** Water Fowl	**SI 7** Fish	**SI 8** Ponds	**SI 9** Terrestrial Habitat	**SI 10** Macrophytes		
Offsite Ponds												
P1	1	0.12	0.9	0.67	0.4	0.67	0.33	0.84	0.67	0.31	**0.51**	*Below average*
P2	1	0.3	0.5	0.67	1	0.67	1	0.69	1	0.85	**0.72**	*Good*

5.6.9 The eDNA analysis of the samples collected from pond P1 recorded a negative result indicating an absence of Great Crested Newt.

5.6.10 Assessment of Proposals.

5.6.11 P1 has been assessed as being of below average suitability to support great crested newts using the HSI, and returned a negative eDNA result as such it is highly unlikely to support great crested newt. P1 is separated from the proposed drainage swale by approximately 70m of arable land, and whilst there are no direct connections between P1 and the site via hedgerows, there is no physical barrier to potential dispersal by amphibians. Arable land is intrinsically of low suitability to amphibians due to pesticide treatments and the consequent low levels of invertebrate prey present. Higher suitability foraging habitat is available to the east of P1 in the form of permanent pasture and the woodland copse. Great Crested Newts are considered to be absent from P1.

5.6.12 Houlton Way forms a major dispersal barrier between pond P2 and the site. P2 is surrounded by grassland which provides suitable habitat for Great Crested Newt. However, the pond is comparatively isolated within the landscape and being comparatively recently created (2019) reduces the chances that it has naturally been colonised by Great Crested Newt. Should great crested newts be present within P2, it is considered that the road will form a significant physical barrier to dispersal, and there is a negligible risk that they would be present within the application site, located more than 100m to the north at its closest point.

5.6.13 P3 and P4 are separated from the site by dispersal barriers in the form of Rugby Road and the residential development between these ponds and the site, with regard to straight line distance. Whilst the disused railway does provide a vegetated corridor by which Great Crested Newt could potentially access the site from ponds P3 and P4, it is considered highly unlikely that this would occur. The disused railway provides highly suitable terrestrial habitat for Great Crested Newt, comprising tussocky grassland and scrub, whilst the intensively farmed arable field habitat provided by the site offers very limited potential for foraging or shelter.

5.6.14 A study by Langton and Beckett (1995)[26] reported that 95% of Great Crested Newt stay within approximately 160m of their breeding pond. A separate study undertaken by Jehle (2000)[27] used radio tracking to monitor Great Crested Newt and reported that 95% stayed within 63m of their breeding pond. Great Crested Newt are considered to be absent from Pond 1, the only pond with unobstructed direct habitat links to the site. P2 is physically separated from the site by a significant barrier to dispersal in the form of Houlton Way. P3 lies approximately 240m from the site boundary and P4 approximately 250m from the site boundary. Consequently, any great crested newt travelling from P3 and P4 would have to traverse through approximately 240m of optimal habitat in order to gain access to suboptimal habitat.

5.6.15 As such, due to the higher quality habitats present within close proximity to each pond, the poor suitability of the site and the distance of the three waterbodies that may potentially

[26] Langton T. E. S and Beckett C. L (1995) *Home range size of Scottish amphibians and reptiles* .Scottish Natural Heritage Review No. 53.
[27] Jehle R (2000) *The terrestrial summer habitat of radio-tracked great crested newts (Triturus cristatus) and marbled newts (T. marmoratus).* Herpetological Journal 10, 137-142

support Great Crested Newt from the site, it is assessed to be highly unlikely that any Great Crested Newt are present on-site.

5.6.16 Whilst no ponds are proposed within the application site, post-completion the site would support sizeable areas of grassland, scrub planting, wet grassland and improved hedgerows which would provide improved terrestrial habitat for a wide range of species. Such habitat improvements would also benefit amphibians, should any be present in the future.

5.7 Reptiles

5.7.1 **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), as set out at Appendix 6976/2. All six reptile species are also S41 Priority Species. As such, all reptile species should be assessed as important ecological features.

5.7.2 **Background Records.** No records of any reptiles from within or adjacent to the site were returned by the desktop study. Information returned from the desk study included records of Grass Snake *Natrix helvetica,* the closest of which was from a location approximately 0.3km north-east of the site.

5.7.3 **Assessment of Proposals.** The majority of the site comprises arable, such that it is predominantly unsuitable for reptiles. The hedgerows provide limited potentially suitable habitat for common reptiles, albeit these areas are limited in extent and abundant opportunities of elevated suitability are present within the immediate area. On balance, it is concluded that the site is unlikely to support a resident population of reptiles Precautionary measures in relation to vegetation clearance are set out in Chapter 6 below, to minimise the risk of harm to reptiles in the unlikely event they are present at the time of works. Subject to implementation of these measures it is assessed that the conservation status of reptiles will be maintained. Post-development new scrub and grassland habitats will provide enhanced opportunities for reptiles at the site.

5.8 Birds

5.8.1 **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 special penalties apply to legal offences (see Appendix 6976/2).

5.8.2 **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[28]. 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 level or rapid rate of population decline (>50% over the past 25 years). Numerous birds are

[28] Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D. and Win I. (2021).*'The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain.* British Birds *114*, p.p. 723-747.

also S41 Priority Species. Red and Amber listed species and Priority Species should be assessed as important ecological features.

5.8.3 **Background Records.** Information returned by the desk study included records for several Priority Species birds within 2km of the site, including the Red Listed species Skylark *Alauda arvensis,* House Sparrow *Passer domesticus,* and Song Thrush *Turdus philomelos.* None of the records originate from within the site itself.

5.8.4 **Survey Results and Evaluation.** Several species of bird were observed within the site during the survey including Woodpigeon *Columba palumbus*, Red Kite *Milvus milvus*, Wren *Troglodytes troglodytes*, Blue Tit *Cyanistes caeruleus*, Robin *Erithacus rubecula* and Goldfinch *Carduelis carduelis*.

5.8.5 The birds recorded at the site are not listed as having any special conservation status. 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 these species, which remain common throughout Great Britain[29]. The site is considered unlikely to be critical to the maintenance of any local bird population.

5.8.6 **Assessment of Proposals.** The proposals will result in the loss a section of scrub to facilitate site access as well as the removal of the arable land which could affect nesting birds which may be present at the time of works. Accordingly, a number of safeguards in respect of nesting birds are proposed, as described in Chapter 6 below. In the long-term, additional nesting opportunities will be provided for birds as described in Chapter 6 below.

5.9 Invertebrates

5.9.1 **Legislation.** Various invertebrate species are listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). In addition, Large Blue *Phengaris 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), as set out at Appendix 6976/2. Some invertebrates are also S41 Priority Species. Where such species are present, they should be assessed as important ecological features.

5.9.2 **Background Records.** No specific records of invertebrates were returned from within or adjacent to the site. Records of Cinnabar *Tyria jacobaeae* (Priority Species) were returned by the desk study, the closest located approximately 1.1km west of the site. However, the site was not recorded as supporting significant quantities of Ragwort, the food plant of the species' caterpillars.

5.9.3 **Survey Results and Evaluation.** No evidence of the presence of any protected, rare or notable invertebrate species was recorded from within the site. However, the walkover survey was undertaken outside the optimal season. Nevertheless, the site is dominated by arable cropland, which is likely to only support a limited diversity of invertebrates. The site contains occasional patches of scrub but otherwise supports relatively few micro-habitats that would indicate possible elevated value for invertebrates[30], such as a variable topography with areas of vertical exposed soil, areas of species-rich semi-natural vegetation; variable vegetation structure with frequent patches of tussocks combined with

[29] Population estimates of birds in Great Britain and the United Kingdom. Musgrove et al., British Birds, 2013

[30] Natural England (2010) Higher Level Stewardship – Farm Environment Plan (FEP) Manual, 3rd Edition

short turf; free-draining light soils; walls with friable mortar or fibrous dung. Accordingly, the site is likely to support only a limited diversity of invertebrates.

5.9.4 **Assessment of Proposals.** Habitats within the site are unlikely to support an important invertebrate assemblage and therefore the proposals are unlikely to result in harm to protected, rare or notable invertebrate populations.

5.10 Summary

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

Table 5.4. Evaluation summary of fauna forming important ecological features

Species / Group	Summary	Level of Importance
Bats – Roosting	Potential habitat in the form of 3x trees with PRFs (FAR) that will be retained and protected	Site
Bats – Foraging / Commuting (assemblage)	Limited habitat in the form of hedgerows and small areas of scrub. All potential commuting routes will be protected and enhanced.	Commuting: Local Foraging: Negligible
Badger	Confirmed presence on site (further assessment required)	Local
Hedgehog	May pass through site on occasion	Negligible
Brown Hare	Potential habitat in the form of arable	Negligible
Great Crested Newt	Confirmed likely absence within offsite pond P1	Negligible
Reptiles	Potential habitat in the form of hedgerows and narrow field margins	Negligible
Nesting Birds	Bird species likely to nest on site but not be dependent upon it for maintenance of local populations	Site

5.10.2 Other fauna supported by the site include non-Priority Species of mammals and invertebrates. These species do not form intrinsically important ecological features.

6 Avoidance, Mitigation, Compensation and Enhancement

6.1 Avoidance, Mitigation, and Compensation

6.1.1 As set out in the previous chapters, the proposed development has followed the mitigation hierarchy approach as set out under the National Planning Policy Framework (NPPF), with consideration given first to avoidance, followed by mitigation and compensation.

6.1.2 Based on the assessment of the proposals and ecological designations, habitats and associated fauna identified within or adjacent to the site, it is proposed that the following mitigation and compensation measures (**MC1-MC10**) 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).

Ecological Designations

6.1.3 The site is not subject to any statutory or non-statutory ecological designations and it is unlikely that any such designations in the surrounding area will be significantly affected by the proposals. Accordingly, no specific mitigation or compensation measures are required with respect to designated sites.

Habitats

6.1.4 The proposed development would require the loss of a section of scrub that is dominated by non-native species to create the access road. This is not considered to be an intrinsically important habitat, but may support nesting birds during the breeding season.

6.1.5 No habitat at the site is considered to be important above the site level. However, the native hedgerows are considered to be priority habitat and important at the site level. The hedgerows will be retained and enhanced. Compensation for scrub losses is set out below, together with standard safeguarding measures. Losses of habitats will be addressed as part of the BNG strategy.

6.1.6 **MC1 – Hedgerow and Tree Protection.** All hedgerows and trees to be retained within the proposed development should be protected during construction in line with standard arboricultural best practice (BS5837:2012) or as otherwise directed by a suitably competent arboriculturalist. This may require the use of protective fencing or other methods appropriate to safeguard the root protection areas of retained trees and hedgerows.

6.1.7 **MC2 – New Hedgerow and Scrub Planting.** To compensate for the loss of scrub under the proposals, new native scrub will be provided, this will also ensure BNG trading rules are complied with. The planting of new species-rich hedgerows of native species, and the enhancement of retained existing hedgerows will be secured as part of the BNG strategy.

Bats

6.1.1 Potential roosting habitat provided by trees **T1-8** are retained under the proposals. However, should bats be present, they may be subject to indirect disturbance during construction due to the close proximity of the development. Therefore, further survey work

is recommended below**.** Impacts on foraging and commuting bats will be minimised by implementation of a sensitive lighting design, as detailed further below.

6.1.2 MC3 – **PRF/aerial inspection surveys.** Should the development proposals change and any of the trees with roosting potential (T1-8) become subject to direct or indirect damage or disturbance, then further assessment of any tree affected should be subject to a full PRF inspection. This comprises close inspection of all identified PRFs and FAR using an endoscope, torch, ladder and tree climbing as required. Should the potential PRF-M be confirmed, or any further PRF-Ms identified, repeat visits to the PRF-M(s) would be undertaken providing a total of three visits per PRF-M during the active bat season, in accordance with the guidance. Should bat roosts be confirmed then a licence may be required from Natural England to permit the works.

6.1.3 **MC4 – Removal of Roofs.** Removal of the roof of building **B1**, should be undertaken with care during favourable weather conditions (e.g. not during heavy rain, high winds or unseasonable low temperatures) under an appropriate watching brief. Should any bats be encountered, works would need to stop so that suitable mitigation can be agreed prior to works re-commencing. This may potentially involve discussion with Natural England and acquisition of a development licence for works to resume.

6.1.4 **MC5 – Sensitive Lighting.** Light-spill onto retained and newly created habitat, in particular the retained hedgerows, tree lines and scrub, will be minimised in accordance with good practice guidance[31] to reduce potential impacts on light-sensitive bats and other nocturnal fauna. This will be achieved through the implementation of a sensitively designed lighting strategy, with consideration given to the following key factors:

- **Light exclusion zones –** lighting should be controlled 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;

[31] Bat Conservation Trust and Institute of Lighting Professionals (2023) Guidance Note 08/23: Bats and artificial lighting at night; 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.

- **Light intensity –** light intensity (i.e. lux levels) should be kept as low as possible to reduce the overall amount and spread of illumination; boundary hedgerows should not be illuminated above 1 lux.
- **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. Low albedo hard-surfacing should be used beneath external lighting to minimise reflection of light upwards;
- **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 (April to October). Motion sensors can also be used to limit the time lighting is operational.

Badger

6.1.5 Survey results and evaluation in respect of Badger are set out in a Confidential Appendix separate to this report.

6.1.6 **MC6 – Badger Survey.** A species-specific Badger activity survey has been conducted to identify all badger setts within the site. A full, current, survey of existing Badger setts within the site will be needed to inform Natural England licensing (see Confidential Appendix for further details) where setts will require mitigation.

Great Crested Newt

6.1.7 The site is considered unlikely to support Great Crested Newt given the distance and dispersal barriers between the closest potential breeding pond, P2, and the site and the poor-quality habitat offered by the site in comparison to the landscape closer to the ponds.

Reptiles

6.1.8 Potential habitat losses for reptiles are restricted to the narrow field margins, together with areas of scrub.

6.1.9 **MC7 – Habitat Manipulation.** The habitat manipulation exercise will involve removing potentially suitable vegetation within the affected areas of the development footprint in a phased manner by first cutting it to a short height (~15cm) to encourage reptiles to disperse to suitable areas of retained/nearby habitat, prior to ground clearance within a week of the initial cut. This work should be undertaken in appropriate weather conditions for reptiles to be able to move freely; dry warm weather with night time temperatures above 6 degrees centigrade. Any debris piles should be destructively searched by hand and any reptiles or other vulnerable wildlife moved to a place of safety nearby.

Nesting Birds

6.1.10 Removal of scrub and the arable land may result in effects on nesting birds. Accordingly, the following approach will be adopted.

6.1.11 **MC8 – Nesting Bird Restrictions.** To avoid a potential offence under the relevant legislation, no clearance of suitable vegetation should be undertaken during the bird-nesting season (1st March to 31st 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, but will vary by species) and protected until the chicks have fledged. These checking surveys would need to be carried out no more than 48 hours in advance of vegetation clearance.

Other Fauna

6.1.12 The site has been identified as offering potential for other mammal species including Hedgehog and Brown Hare. Accordingly, the following approach will be adopted during site clearance and construction works.

6.1.13 **MC9 – Small Mammal Safeguards.** In order to safeguard Hedgehog, Brown Hare 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, Brown Hare and other small mammals throughout any clearance works;
- 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 temporarily exposed open pipes or open drains should be blanked off at the end of each working day so as to prevent animals gaining access as may happen when contractors are off-site;
- Any trenches/pits should be inspected each morning to ensure no animals have become trapped overnight;
- The storage of any chemicals at the site will be contained in such a way that they cannot be accessed or knocked over by any roaming animals;
- Fires will only be lit in secure compounds away from wooded habitats and will not be allowed to remain lit during the night;
- Unsecured food and litter will not be left within the working area overnight;
- 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 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 or other animals 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;
- In the event that an injured mammal is found, the animal should be wrapped carefully in a towel and taken to a local vet immediately. If an injured Hedgehog is found the British Hedgehog Preservation Society (BHPS) can be phoned (01584 890 801).

6.1.14 **MC10 – Faunal Habitat Connectivity.** To maintain connectivity throughout the site for Hedgehog and other small mammals and to allow access to suitable foraging habitat contained within residential gardens, small holes (13cmx13cm) should be created within garden fences or under gates.

6.2 Ecological Enhancements

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 BAP.

Habitats

6.2.2 Habitat enhancements will be delivered as part of the BNG strategy, forming a separate submission. This will be informed by the following principles, according with national and local conservation priorities.

6.2.3 **New Planting.** Where practicable, new planting within the site should comprise 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 *Quercus robur*, Birch *Betula pendula* and Field Maple *Acer campestre*, 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. Where non-native species are proposed, these should include species of value to wildlife, such as varieties listed on the RHS' 'Plants for Pollinators' database, providing a nectar source for bees and other pollinating insects.

6.2.4 **Wildflower Grassland and Flowering Lawn.** Within areas of open space, wildflower grassland can be created. These should be subject to a varied management regime to provide a range of sward types. Most areas should be managed as hay meadow, subject to cutting 2-3 times a year to promote a flower rich sward, whilst areas of rough, tussocky grassland can be established along hedgerow margins. As such, grassland areas will provide a rich habitat resource for invertebrate species, in turn providing increased foraging opportunities for wildlife including birds and bats. Consideration can also be given to the creation of wildflower grassland comprising locally appropriate native species. This would ensure rapid establishment of these habitats and reduce the timeframe for delivering the range of ecological benefits that are proposed. Within parks and other recreation and amenity areas where grassland must be kept short, consideration can be given to seeding of flowering lawn, containing a range of herb species which tolerate frequent mowing. This will provide a further flowering and pollen resource for invertebrates.

6.2.5 **Scrub Planting.** Scrub habitat should be established along hedgerows and within grassland areas creating scrub mosaics and forming valuable ecotone habitats for a range of wildlife, including reptiles, small mammals and invertebrates.

6.2.6 **Wetland Features.** The opportunity exists under the proposals to create new wetland habitats as part of the Sustainable Drainage System (SUDS). Where practical these should be designed in accordance with ecological principles, incorporating measures such as shallow, sinuous margins, areas of permanent water and planting with native vegetation. Such measures will benefit a range of wetland species including birds, aquatic invertebrates and amphibians whilst also helping to attenuate surface water run-off.

6.2.7 **Hedgerows.** New lengths of hedgerow planting can be provided along the boundaries of green space areas and around areas of built development. Existing hedgerows should also be subject to supplementary planting where necessary to fill gaps and strengthen the integrity of the hedgerow.

Fauna

6.2.8 To provide additional opportunities for fauna, it is proposed that a range of new features are incorporated within the proposed development. This should include the following features, with specific measures to be detailed as part of a faunal enhancement plan which can be secured via a suitably-worded planning condition.

6.2.9 **Bat Boxes.** Bat boxes should 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. To maximise their potential use, the bat boxes should ideally be situated on suitable retained trees, erected as high up as possible and sited in sheltered wind-free areas that are exposed to the sun for part of the day, facing a south-east, south or south-westerly direction. In addition, where architectural design allows, a number of integrated bat boxes/roost features should be incorporated into a proportion of the new build dwellings. The precise number and locations of boxes/roost features should be determined by a competent ecologist, once the relevant development layout details have been fixed.

6.2.10 **Bird Boxes.** Bird nesting boxes should be incorporated within the proposed development, thereby increasing nesting opportunities for birds at the site. This should include integrated nest boxes on new buildings targeting species including Swift *Apus apus*, and House Sparrow *Passer domesticus*, whilst boxes can be erected on retained trees. The precise number and locations of boxes should be determined by a competent ecologist, once the relevant development layout details have been fixed.

6.2.11 **Habitat Piles and Refugia.** A proportion of any deadwood arising from vegetation clearance works should be retained within the site in a number of wood piles located within areas of new planting in order to provide potential habitat opportunities for invertebrate species, which in turn could provide a prey source for a range of other wildlife. Dedicated hibernacula and refugia can also be provided for reptile and amphibian species, comprising log or rubble piles either left open or covered in soil and turfs.

6.2.12 **Bee Bricks and Insect Boxes.** It is recommended that 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. Insect boxes can also be provided within the areas of wildlife habitat in order to enhance the nesting and over-wintering locations available for a range of invertebrates, particularly solitary wasps and bees.

7 Conclusions

7.1 Aspect Ecology has carried out a Preliminary Ecological Appraisal of the proposed development, based on the results of a desktop study and habitat survey.

7.2 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 would be adversely affected by the proposals.

7.3 The 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 features identified as Priority Habitats including hedgerows. Where it has not been practicable to avoid loss of habitats, new habitat creation is proposed to offset losses, in conjunction with the landscape proposals.

7.4 The habitats within the site have the potential to support protected species, including bats, Badger, and nesting birds.

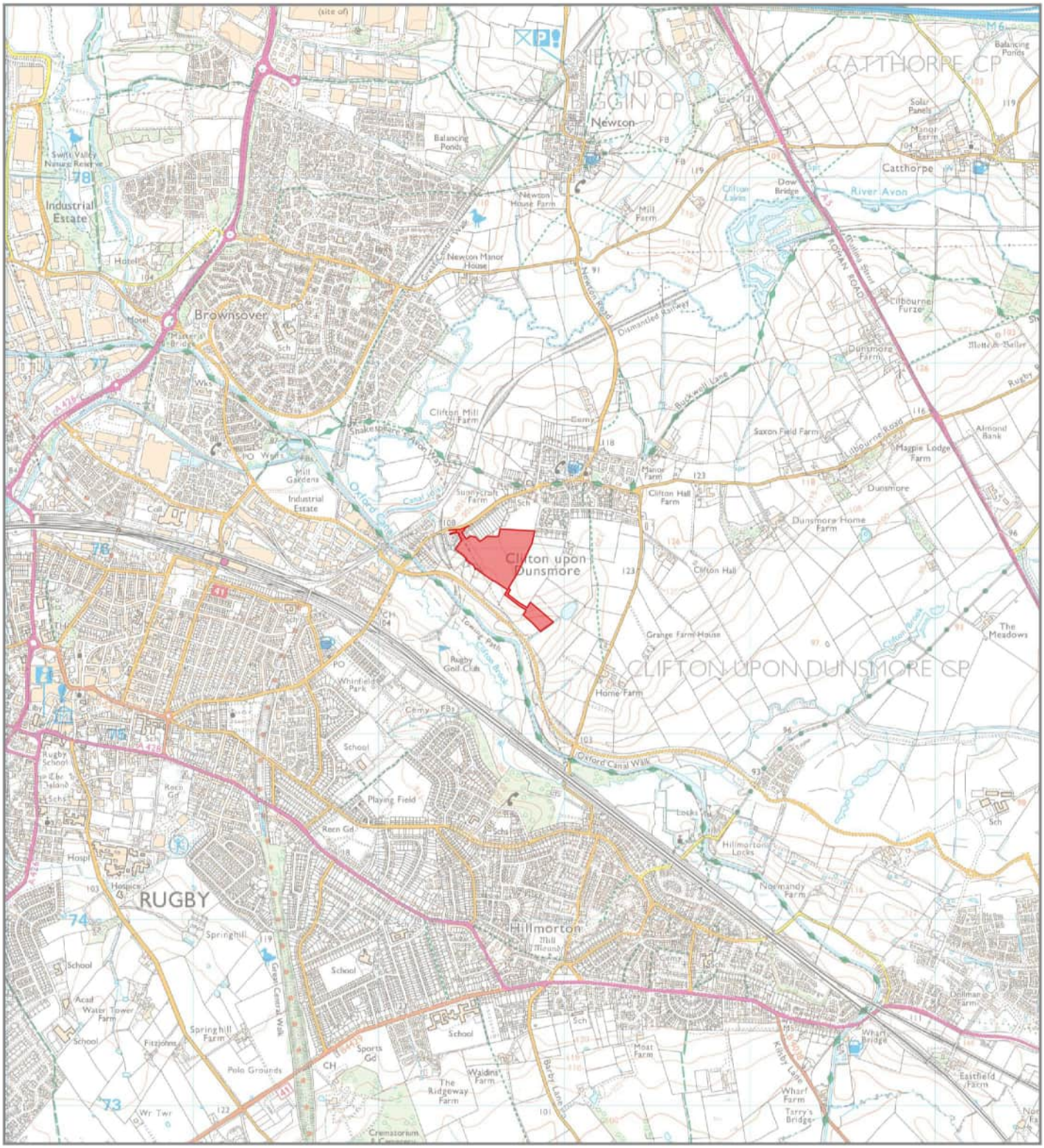
7.5 Accordingly, a number of mitigation and enhancement measures, have been proposed to minimise the risk of harm to protected species, with compensatory measures proposed where appropriate, in order to maintain the conservation status of local populations. Nevertheless, from a preliminary appraisal it is assessed to be unlikely that the site is critical to the maintenance of any of these species and that the development proposals will, post establishment of the proposed landscaping, result in an enhancement to biodiversity and ecology.

7.6 In conclusion, the proposals have sought to minimise impacts and subject to the implementation of the appropriate avoidance, mitigation and compensation measures as recommended, it is preliminarily assessed the proposals will not result in significant harm to biodiversity.

7.7 Ecological enhancements are proposed to achieve a biodiversity net gain, to be set out further as part of the BNG strategy in a separate submission.

Plan 6976/ECO1:

Site Location



Key:

Site Location

aspect ecology
APEM Group

Aspect Ecology Limited · West Court · Hardwick Business Park
Noral Way · Banbury · Oxfordshire · OX16 2AF
01295 279721 · info@aspect-ecology.com · www.aspect-ecology.com

Clifton upon Dunsmore	PROJECT
Site Location	TITLE
6976/ECO1	DRAWING NO.
C/JP	REV
August 2025	DATE
JP/OG	QC

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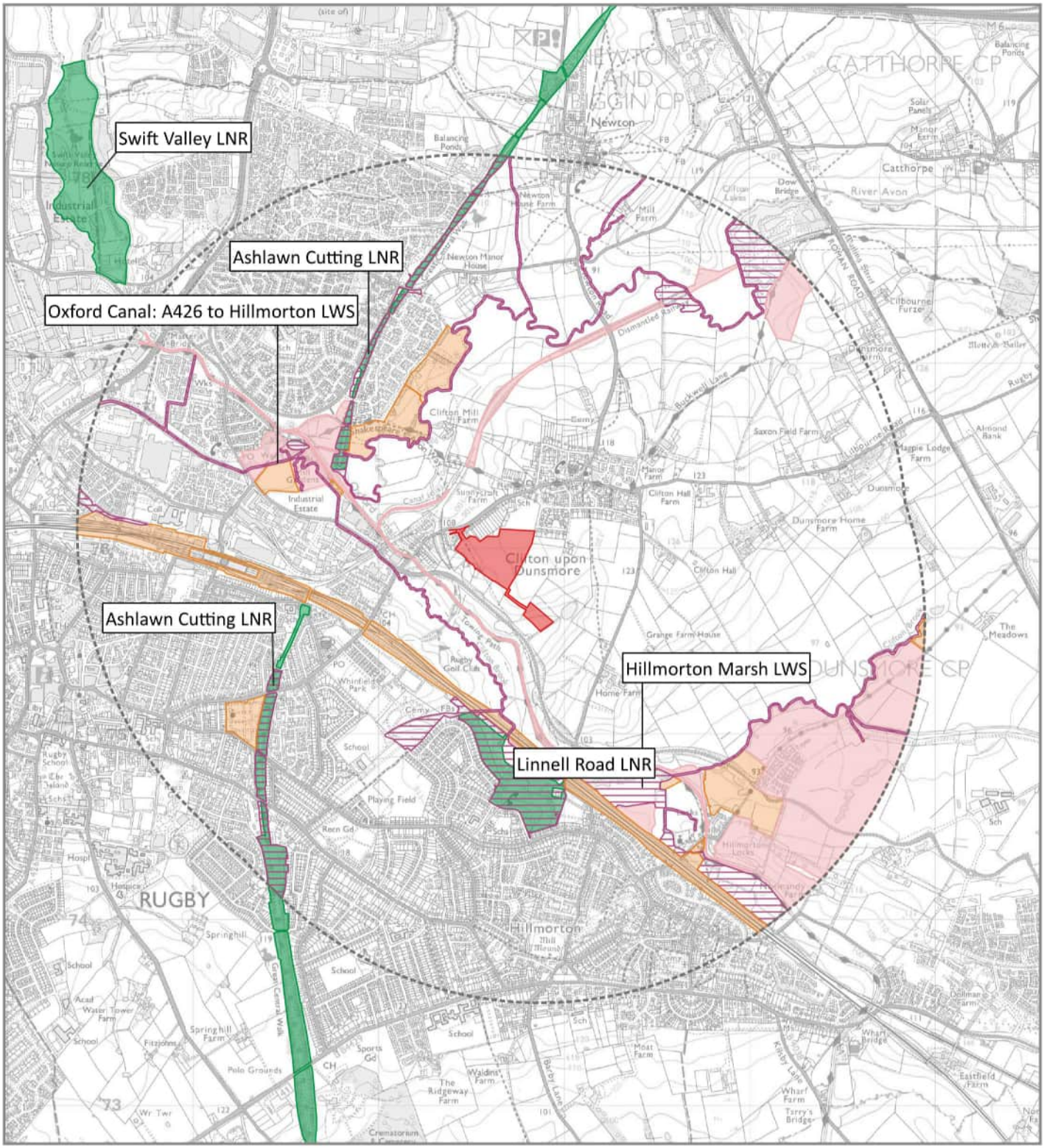
Plan 6976/ECO2:

Ecological Designations



Key:

- Site Location
- Local Nature Reserve (LNR)
- Local Wildlife Site (LWS)
- Potential Local Wildlife Site (pLWS)
- Ecosite
- 2km Local Records Centre Search Area

Only non-statutory sites located within the 2km local record centre search area are shown on the above plan.
Non-statutory data provided by Warwickshire Biological Records Centre

aspect ecology
APEM Group

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Clifton upon Dunsmore	PROJECT
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Plan 6976/ECO3:

Habitats and Ecological Features

Key:

- Site Boundary
- Artifical unvegetated, unsealed surface
- Bramble Scrub
- Building
- Hardstanding
- Mixed scrub
- Modified grassland
- Non-cereal crops
- Hedgerow
- Line of Trees
- Tree

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Clifton upon Dunsmore	PROJECT
Habitats and Ecological Features	TITLE
6976/ECO3	DRAWING NO.
F/AM	REV
August 2025	DATE
OG/AM	QC

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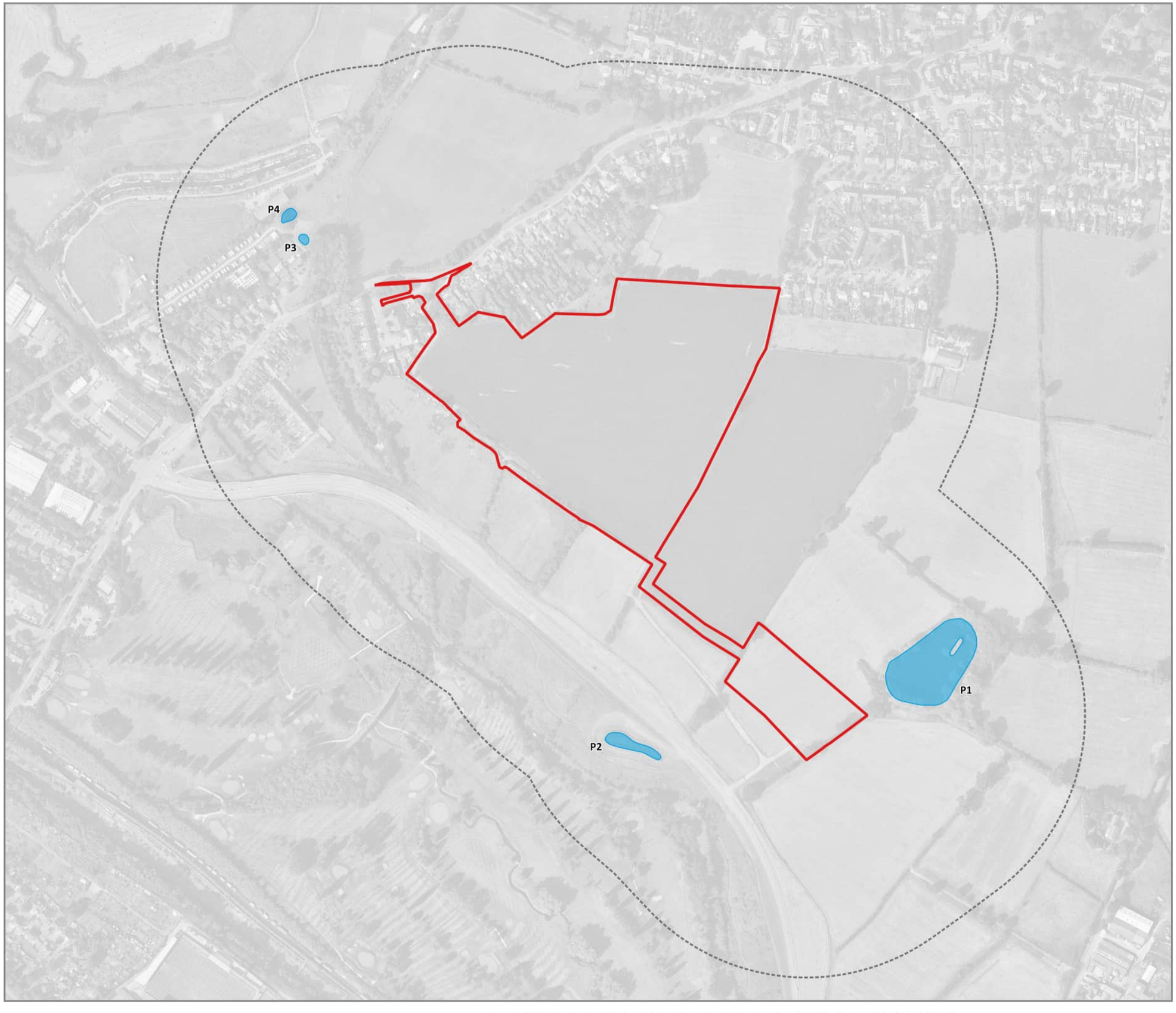
Plan 6976/ECO4:

Pond Plan



Key:

- Site Boundary
- 250m Site Buffer
- Pond

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Clifton upon Dunsmore	PROJECT
Pond Plan	TITLE
6976/ECO4	DRAWING NO.
C/JP	REV
August 2025	DATE
OG/JP	QC

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Appendix 6976/1:

Principles of Ecological Evaluation

Evaluation Methodology

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) 'Guidelines for Ecological Impact Assessment in the UK and Ireland' (2018)[1].

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 species-poor 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);

[1] CIEEM (2018) '*Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*', Version 1.3, Chartered Institute of Ecology and Environmental Management, Winchester (updated September 2024)

- 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.

<u>Assigning Level of Importance</u>

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 6976/2:

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[1]. 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.

[1] 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# (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)[2] 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.

[2] 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 6976/3:

Habitat Survey Results: Hedgerows

Habitat Survey Results: Hedgerows

Hedgerow number	H1	H2	H2a
Hedgerow type	Native hedgerow	Native hedgerow	Native hedgerow
Associated with bank/ditch	None	None	None
Height (more than 1.5m*)	1.5 m	2m	1.5 m
Width (more than 1.5m*)	2.5 m	1.5 m	2m
Woody species (species listed under Schedule 3 of the Hedgerows Regulations 1997 underlined)	Elder, Hawthorn, Holly, Ash	Ash, Buddleia	Elder, Ash, Holly
Average woody species per 30m (as listed under Schedule 3 of the Hedgerows Regulations 1997)	3	2	3
More than 80% native species	Yes	Yes	Yes
Ground flora and climbers (species listed under Schedule 2 of the Hedgerows Regulations 1997 underlined)	Bramble, Hogweed, Common Nettle, Burdock, Cleavers, Ivy, Broad-leaved Dock, Cock's-foot, False oat-grass, Perennial Rye-grass, Italian Rye-grass	Bramble, Hogweed, Common Nettle, Burdock, Cleavers, Ivy, Broad-leaved Dock, Cock's-foot, False oat-grass, Perennial Rye-grass, Italian Rye-grass	Bramble, Hogweed, Common Nettle, Burdock, Cleavers, Ivy, Broad-leaved Dock, Cock's-foot, False oat-grass, Perennial Rye-grass, Italian Rye-grass
Standard trees - number, age class of trees present (young/mature/veteran/ancient), species, notable specimens	2x Mature Ash trees	N/A	N/A
Other associated features (footpath, parallel hedge)	Gaps <10% hedge length, connected to another hedge	Gaps <10% hedge length, connected to another hedge	Gaps <10% hedge length, connected to another hedge
Other comments	Edleder dominant. Evidence of recent management, flayed to box shape. Holly only present to the southern extent. Hawthorn becomes far more frequent at northern extent.	Evidence of recent management, flayed to box shape	Evidence of recent management, flayed to box shape
Gap at hedgerow base less than 0.5m for >90% of length*	Pass	Pass	Pass
Less than 10% gaps and no canopy gaps more than 5m*	Pass	Pass	Pass
More than 1m width of undisturbed ground present for more than 90% of length*	Pass	Pass	Pass
Nettles, Cleavers and Docks dominate less than 20% cover of area of undisturbed ground*	Fail	Fail	Fail
More than 90% of hedgerow and undisturbed ground free of invasive non-native plants*	Pass	Fail	Pass
More than 90% of hedgerow and undisturbed ground free of damage*	Pass	Pass	Pass
Hedgerow with trees only - more than one age class of trees present and at least one mature/ancient/veteran tree per 50m*	N/A	N/A	N/A
Hedgerow with trees only - at least 95% of hedgerow trees are in a healthy condition (excluding veteran features valuable for wildlife)*	N/A	N/A	N/A
Likely to qualify as important hedgerow under the wildlife and landscape criteria of the Hedgerows Regulations 1997	No	No (Forms Residential Curtilage)	No (Forms Residential Curtilage)

Habitat Survey Results: Hedgerows

H3	Native hedgerow	None	5m	2m	Yew sp.	1	Yes	Hogweed, Common Nettle, Burdock, Cleavers, Ivy, Broad-leaved Dock, Cock's-foot, False oat-grass, Perennial Rye-grass, Italian Rye-grass	N/A	Gaps <10% hedge length, connected to another hedge	Appears unmanaged	Pass	Pass	Pass	Fail	Pass	Pass	N/A	N/A	No (Forms Residential Curtilage)
H4	Native hedgerow	None	1.5 m	1.5 m	Elder, Blackthorn, Beech, Dogwood	4	Yes	Bramble, Hogweed, Common Nettle, Burdock, Cleavers, Ivy, Broad-leaved Dock, Cock's-foot, False oat-grass, Perennial Rye-grass, Italian Rye-grass	N/A	Gaps <10% hedge length, connected to another hedge	Appears unmanaged	Pass	Pass	Pass	Fail	Pass	Pass	N/A	N/A	No (Forms Residential Curtilage)
H5	Non-native and ornamental hedgerow	None	2m	1.5 m	Privet, Fir sp.	2	No	Adjacent to scrub parcel S1	N/A	Gaps <10% hedge length, connected to another hedge	Appears unmanaged on site side	Pass	Pass	Pass	Fail	Fail	Pass	N/A	N/A	No (Forms Residential Curtilage)
H6	Non-native and ornamental hedgerow	None	2.25 m	1.5 m	Leyland cypress	1	No	Adjacent to scrub parcel S1	N/A	Gaps <10% hedge length, connected to another hedge	Managed to tall box shape	Pass	Pass	Fail	Fail	Fail	Pass	N/A	N/A	No (Forms Residential Curtilage)
H7	Native hedgerow	None	1.25 m	1.5 m	Hawthorn	1	Yes	Common Nettle, Yarrow, Ivy, Cock's-foot, False oat-grass, Perennial Rye-grass, Italian Rye-grass	N/A	Gaps <10% hedge length, connected to another hedge	Recently managed to box shape	Pass	Pass	Pass	Pass	Pass	Pass	N/A	N/A	No
H8	Native hedgerow	None	1.5 m	1.5 m	Blackthorn, Elm, Holly	3	Yes	Bramble, Hogweed, Common Nettle, Burdock, Cleavers, Ivy, Broad-leaved Dock, Cock's-foot, False oat-grass, Perennial Rye-grass, Italian Rye-grass	Mature Ash and Spruce sp.	Gaps <10% hedge length	Appears unmanaged	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	No
H9	Native hedgerow	None	4m	2.5	Elder, Hawthorm, Holly	2	Yes	Hogweed, Common Nettle, Burdock, Cleavers, Ivy, Broad-leaved Dock, Cock's-foot, False oat-grass, Perennial Rye-grass, Italian Rye-grass	N/A	Gaps <10% hedge length	Appears less intensley managed than other managed hedges	Pass	Pass	Pass	Pass	Pass	Pass	N/A	N/A	No

Habitat Survey Results: Hedgerows

H10	Native hedgerow	None	2.5 m	2.5 m	Elder, Hawthorn	2	Yes	Common Nettle, Cock's-foot, False oat-grass, Perennial Rye-grass, Italian Rye-grass	N/A	Gaps <10% hedge length, connected to another hedge	Elder dominant at western extent becoming Hawthorn dominant at eastern extent. Recently managed to box shape	Pass	Pass	Pass	Pass	Pass	Pass	N/A	N/A	No
H11	Native hedgerow	None	2m	2.5 m	Elder, Hawthorn, Dogwood	2	Yes	As H1	N/A	Gaps <10% hedge length, connected to another hedge	Appears unmanaged	Pass	Pass	Pass	Fail	Pass	Pass	N/A	N/A	No
H12	Native hedgerow	None	2m	2.5 m	Elder, Hawthorn	2		As H1	Ash	Gaps <10% hedge length, connected to another hedge	Appears unmanaged	Pass	Pass	Pass	Fail	Pass	Pass	Fail	Pass	No
H13	Native hedgerow	Ditch	1.5 m	2.5 n	Elder, Hawthorn	2		As H1	Ash and Oak	Gaps <10% hedge length, connected to another hedge	Appears unmanaged	Pass	Pass	Pass	Fail	Pass	Pass	Fail	Pass	No

* Indicates habitat condition assessment criteria

Appendix 6976/4:

Habitat Condition Assessment Matrix for Statutory Biodiversity Metric

Condition Sheet: GRASSLAND Habitat Type (low distinctiveness)

UK Habitat Classification (UKHab) Habitat Type

Grassland - Modified grassland

On-site or off-site, site name and location	Clifton Upon Dunsmore	**Survey date and Surveyor name**	
Limitations (if applicable)		**Survey reference (if relating to a wider survey)**	
Grid reference		**Habitat parcel reference**	

Habitat Description

ukhab – UK Habitat Classification

	Condition Assessment Criteria	Criterion passed (Yes or No)	Notes (such as justification)
A	There are 6-8 vascular plant species per m^2 present, including at least 2 forbs (these may include those listed in Footnote 1). **Note - this criterion is essential for achieving Moderate or Good condition.** Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m^2 (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.	Y	
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	N	
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble *Rubus fruticosus* agg. may be present). Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Y	
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	Y	
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens)[2].	N	
F	Cover of bracken *Pteridium aquilinum* is less than 20%.	Y	
G	There is an absence of invasive non-native plant species[3] (as listed on Schedule 9 of WCA[4]).	Y	
	Essential criterion achieved (Yes or No)		
	Number of criteria passed		

Condition Assessment Result (out of 7 criteria)	Condition Assessment Score	Score Achieved ×/✓
Passes 6 or 7 criteria including passing essential criterion A	Good (3)	
Passes 4 or 5 criteria including passing essential criterion A	Moderate (2)	
Passes 3 or fewer criteria; OR Passes 4 - 6 criteria (excluding criterion A)	Poor (1)	

Suggested enhancement interventions to improve condition score

Footnotes

Footnote 1 – Creeping thistle *Cirsium arvense* , spear thistle *Cirsium vulgare* , curled dock *Rumex crispus* , broad-leaved dock *Rumex obtusifolius* , common nettle *Urtica dioica* , creeping buttercup *Ranunculus repens* , greater plantain *Plantago major* , white clover *Trifolium repens* and cow parsley *Anthriscus sylvestris* .

Footnote 2 – For example, this could include small, scattered areas of bare ground allowing establishment of new species, or localised patches where not exceeding 10% cover.

Footnote 3 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement.

Footnote 4 – Wildlife and Countryside Act 1981 (as amended).

Condition Sheet: SCRUB Habitat Type

Habitat Types

Heathland and shrub - Blackthorn scrub
Heathland and shrub - Gorse scrub
Heathland and shrub - Hawthorn scrub
Heathland and shrub - Hazel scrub
Heathland and shrub - Mixed scrub
Heathland and shrub - Dunes with sea buckthorn (H2160)
Heathland and shrub - Willow scrub

Habitat Description

For Dunes with sea buckthorn see:	Dunes with sea-buckthorn (Dunes with Hippophae rhamnoides) - Special Areas of Conservation (jncc.gov.uk)
For other scrub types see:	ukhab – UK Habitat Classification

On-site or off-site, site name and location		**Survey date and Surveyor name**	
		Survey reference (if relating to a wider survey)	
Limitations (if applicable)		**Habitat parcel reference**	S1
		Grid reference	

	Condition Assessment Criteria	**Criterion passed (Yes or No)**	**Notes (such as justification)**
A	The parcel represents a good example of its habitat type - the appearance and composition of the vegetation closely matches its UKHab description (where in its natural range).[1] - At least 80% of scrub is native, - There are at least three native woody species[2], - No single species comprises more than 75% of the cover (except hazel *Corylus avellana* , common juniper *Juniperus communis* , sea buckthorn *Hippophae rhamnoides* or box *Buxus sempervirens* , which can be up to 100% cover).	N	
B	Seedlings, saplings, young shrubs and mature (or ancient or veteran[3]) shrubs are all present.	N	
C	There is an absence of invasive non-native plant species[4] (as listed on Schedule 9 of WCA[5]) and species indicative of suboptimal condition[6] make up less than 5% of ground cover.	Y	
D	The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.	N	
E	There are clearings, glades or rides present within the scrub, providing sheltered edges.	N	
	Number of criteria passed		

Condition Assessment Result (out of 5 criteria)	**Condition Assessment Score**	**Score Achieved ×/✓**
Passes 5 criteria	Good (3)	
Passes 3 or 4 criteria	Moderate (2)	
Passes 2 or fewer criteria	Poor (1)	Y

Suggested enhancement interventions to improve condition score

Condition sheet: HEDGEROW Habitat Types

Habitat Type

Native hedgerow
Native hedgerow - associated with bank or ditch
Native hedgerow with trees
Native hedgerow with trees - associated with bank or ditch
Species-rich native hedgerow
Species-rich native hedgerow - associated with bank or ditch
Species-rich native hedgerow with trees
Species-rich native hedgerow with trees - associated with bank or ditch

Habitat Description

See the Statutory Biodiversity Metric Technical Annex 2 and UK Habitat Classification:	ukhab – UK Habitat Classification

On-site or off-site, site name and location		**Survey date and Surveyor name**	
Limitations (if applicable)		**Survey reference (if relating to a wider survey)**	

Condition Assessment Details

A series of ten attributes, representing key physical characteristics are used for this assessment. Each attribute is assigned to one of five functional groups (A – E) and the condition of a hedgerow is assessed according to the number of attributes from these functional groups which pass or fail the 'favourable condition' criteria.

This assessment is based on the Hedgerow Survey Handbook[1] and Favourable Conservation Status document[2]. For further clarification please refer to the Hedgerow Survey Handbook.

Best practice would be to record the species, age, spacing and other key information about all trees present along a hedgerow within the 'Habitat Description' box, as well as other key features of the hedgerow.

Hedgerow favourable condition attributes

Attributes and functional groupings (A, B, C, D and E)		**Criteria - the minimum requirements for 'favourable condition'**	**Criteria description**	**Habitat parcel reference**										**Notes (such as justification)**
				H1	H2	H3	H4	H5	H6	H7	H8	H10	H2a	
				Grid reference										
Core groups - applicable to all hedgerow types				**Criterion passed (Yes or No)**										
A1.	Height	>1.5 m average along length	The average height of woody growth estimated from base of stem to the top of the shoots, excluding any bank beneath the hedgerow, any gaps or isolated trees. Newly laid or coppiced hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice). A newly planted hedgerow does not pass this criterion (unless it is >1.5 m height).	N	N	N	N	Y	Y	Y	Y	Y	Y	
A2.	Width	>1.5 m average along length	The average width of woody growth estimated at the widest point of the canopy, excluding gaps and isolated trees. Outgrowths (such as blackthorn *Prunus spinosa* suckers) are only included in the width estimate when they are >0.5 m in height. Laid, coppiced, cut and newly planted hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice).	N	N	N	N	N	N	N	Y	N	Y	
B1.	Gap - hedge base	Gap between ground and base of canopy <0.5 m for >90% of length	This is the vertical 'gappiness' of the woody component of the hedgerow, and its distance from the ground to the lowest leafy growth. Certain exceptions to this criterion are acceptable (see page 65 of the Hedgerow Survey Handbook).	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

B2.	Gap - hedge canopy continuity	Gaps make up <10% of total length; and No canopy gaps >5 m	This is the horizontal 'gappiness' of the woody component of the hedgerow. Gaps are complete breaks in the woody canopy (no matter how small). Access points and gates contribute to the overall 'gappiness' but are not subject to the >5 m criterion (as this is the typical size of a gate).	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	
C1.	Undisturbed ground and perennial vegetation	>1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: · Measured from outer edge of hedgerow; and · Is present on one side of the hedgerow (at least).	This is the level of disturbance (excluding wildlife disturbance) at the base of the hedgerow. Undisturbed ground is present for at least 90% of the hedgerow length, greater than 1 m in width and must be present along at least one side of the hedgerow. This criterion recognises the value of the hedgerow base as a boundary habitat with the capacity to support a wide range of species. Cultivation, heavily trodden footpaths, poached ground etc. can limit available habitat niches.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
C2.	Nutrient-enriched perennial vegetation	Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground.	The indicator species used are nettles *Urtica* spp., cleavers *Galium aparine* and docks *Rumex* spp. Their presence, either singly or together, does not exceed the 20% cover threshold.	N	N	N	N	N	N	N	N	N	N	
D1.	Invasive and neophyte species	>90% of the hedgerow and undisturbed ground is free of invasive non-native plant species (including those listed on Schedule 9 of WCA[3]) and recently introduced species.	Recently introduced species refer to plants that have naturalised in the UK since AD 1500 (neophytes). Archaeophytes count as natives. For information on archaeophytes and neophytes see the JNCC website[4], as well as the BSBI website[5] where the 'Online Atlas of the British and Irish Flora'[6] contains an up-to-date list of the status of species. For information on invasive non-native species see the GB Non-Native Secretariat website[7].	Y	Y	Y	Y	N	N	Y	Y	Y	Y	
D2.	Current damage	>90% of the hedgerow or undisturbed ground is free of damage caused by human activities.	This criterion addresses damaging activities that may have led to or lead to deterioration in other attributes. This could include evidence of pollution, piles of manure or rubble, or inappropriate management practices (for example, excessive hedgerow cutting).	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Additional group - applicable to hedgerows with trees only														
E1.	Tree class	There is more than one age-class (or morphology) of tree present (for example: young, mature, veteran and or ancient[8]), and there is on average at least one mature, ancient or veteran tree present per 20 - 50m of hedgerow.	This criterion addresses if there are a range of age-classes or morphologies which allow for replacement of trees and provide opportunities for different species.	N	-	-	-			-	N	-	-	
E2.	Tree health	At least 95% of hedgerow trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	This criterion identifies if the trees are subject to damage which compromises the survival and health of the individual specimens.	Y	-	-	-			-	Y	-	-	

The hedgerow condition assessment generates a weighting (score) ranging from 1 - 3, which is used within the Statutory Biodiversity Metric. The scores for each are set out in the tables below.

Condition categories for hedgerows without trees

Category	Category Requirements	Metric Score
Good	No more than 2 failures in total; **AND** No more than 1 failure in any functional group.	3
Moderate	No more than 4 failures in total; **AND** Does not fail both attributes in more than one functional group (for example, fails attributes A1, A2, B1 and C2 = Moderate condition).	2

Poor	Fails a total of more than 4 attributes; **OR** Fails both attributes in more than one functional group (for example, fails attributes A1, A2, B1 and B2 = Poor condition).	1
	Score achieved:	

Condition categories for hedgerows with trees

Category	Category Requirements	Metric score
Good	No more than 2 failures in total; **AND** No more than 1 failure in any functional group.	3
Moderate	No more than 5 failures in total; **AND** Does not fail both attributes in more than one functional group (for example, fails attributes A1, A2, B1, C2 and E1 = Moderate condition).	2
Poor	Fails a total of more than 5 attributes; **OR** Fails both attributes in more than one functional group (for example, fails attributes A1, A2, B1 and B2 = Poor condition).	1
	Score achieved:	

Suggested enhancement interventions to improve condition score

Condition sheet: HEDGEROW Habitat Types

Habitat Type

Native hedgerow
Native hedgerow - associated with bank or ditch
Native hedgerow with trees
Native hedgerow with trees - associated with bank or ditch
Species-rich native hedgerow
Species-rich native hedgerow - associated with bank or ditch
Species-rich native hedgerow with trees
Species-rich native hedgerow with trees - associated with bank or ditch

Habitat Description

See the Statutory Biodiversity Metric Technical Annex 2 and UK Habitat Classification:	ukhab – UK Habitat Classification

On-site or off-site, site name and location		**Survey date and Surveyor name**	
Limitations (if applicable)		**Survey reference (if relating to a wider survey)**	

Condition Assessment Details

A series of ten attributes, representing key physical characteristics are used for this assessment. Each attribute is assigned to one of five functional groups (A – E) and the condition of a hedgerow is assessed according to the number of attributes from these functional groups which pass or fail the 'favourable condition' criteria.

This assessment is based on the Hedgerow Survey Handbook[1] and Favourable Conservation Status document[2]. For further clarification please refer to the Hedgerow Survey Handbook.

Best practice would be to record the species, age, spacing and other key information about all trees present along a hedgerow within the 'Habitat Description' box, as well as other key features of the hedgerow.

Hedgerow favourable condition attributes

Attributes and functional groupings (A, B, C, D and E)		**Criteria - the minimum requirements for 'favourable condition'**	**Criteria description**	**Habitat parcel reference**										**Notes (such as justification)**
				H12	H13									
				Grid reference										
Core groups - applicable to all hedgerow types				**Criterion passed (Yes or No)**										
A1.	Height	>1.5 m average along length	The average height of woody growth estimated from base of stem to the top of the shoots, excluding any bank beneath the hedgerow, any gaps or isolated trees. Newly laid or coppiced hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice). A newly planted hedgerow does not pass this criterion (unless it is >1.5 m height).	Y	Y									
A2.	Width	>1.5 m average along length	The average width of woody growth estimated at the widest point of the canopy, excluding gaps and isolated trees. Outgrowths (such as blackthorn *Prunus spinosa* suckers) are only included in the width estimate when they are >0.5 m in height. Laid, coppiced, cut and newly planted hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice).	Y	Y									
B1.	Gap - hedge base	Gap between ground and base of canopy <0.5 m for >90% of length	This is the vertical 'gappiness' of the woody component of the hedgerow, and its distance from the ground to the lowest leafy growth. Certain exceptions to this criterion are acceptable (see page 65 of the Hedgerow Survey Handbook).	Y	Y									

B2.	Gap - hedge canopy continuity	Gaps make up <10% of total length; and No canopy gaps >5 m	This is the horizontal 'gappiness' of the woody component of the hedgerow. Gaps are complete breaks in the woody canopy (no matter how small). Access points and gates contribute to the overall 'gappiness' but are not subject to the >5 m criterion (as this is the typical size of a gate).	Y	Y									
C1.	Undisturbed ground and perennial vegetation	>1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: · Measured from outer edge of hedgerow; and · Is present on one side of the hedgerow (at least).	This is the level of disturbance (excluding wildlife disturbance) at the base of the hedgerow. Undisturbed ground is present for at least 90% of the hedgerow length, greater than 1 m in width and must be present along at least one side of the hedgerow. This criterion recognises the value of the hedgerow base as a boundary habitat with the capacity to support a wide range of species. Cultivation, heavily trodden footpaths, poached ground etc. can limit available habitat niches.	Y	Y									
C2.	Nutrient-enriched perennial vegetation	Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground.	The indicator species used are nettles *Urtica* spp., cleavers *Galium aparine* and docks *Rumex* spp. Their presence, either singly or together, does not exceed the 20% cover threshold.	N	N									
D1.	Invasive and neophyte species	>90% of the hedgerow and undisturbed ground is free of invasive non-native plant species (including those listed on Schedule 9 of WCA[3]) and recently introduced species.	Recently introduced species refer to plants that have naturalised in the UK since AD 1500 (neophytes). Archaeophytes count as natives. For information on archaeophytes and neophytes see the JNCC website[4], as well as the BSBI website[5] where the 'Online Atlas of the British and Irish Flora'[6] contains an up-to-date list of the status of species. For information on invasive non-native species see the GB Non-Native Secretariat website[7].	Y	Y									
D2.	Current damage	>90% of the hedgerow or undisturbed ground is free of damage caused by human activities.	This criterion addresses damaging activities that may have led to or lead to deterioration in other attributes. This could include evidence of pollution, piles of manure or rubble, or inappropriate management practices (for example, excessive hedgerow cutting).	Y	Y									
Additional group - applicable to hedgerows with trees only														
E1.	Tree class	There is more than one age-class (or morphology) of tree present (for example: young, mature, veteran and or ancient[8]), and there is on average at least one mature, ancient or veteran tree present per 20 - 50m of hedgerow.	This criterion addresses if there are a range of age-classes or morphologies which allow for replacement of trees and provide opportunities for different species.	N	N									
E2.	Tree health	At least 95% of hedgerow trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	This criterion identifies if the trees are subject to damage which compromises the survival and health of the individual specimens.	Y	Y									

The hedgerow condition assessment generates a weighting (score) ranging from 1 - 3, which is used within the Statutory Biodiversity Metric. The scores for each are set out in the tables below.

Condition categories for hedgerows without trees

Category	Category Requirements	Metric Score
Good	No more than 2 failures in total; **AND** No more than 1 failure in any functional group.	3
Moderate	No more than 4 failures in total; **AND** Does not fail both attributes in more than one functional group (for example, fails attributes A1, A2, B1 and C2 = Moderate condition).	2

Poor	Fails a total of more than 4 attributes; **OR** Fails both attributes in more than one functional group (for example, fails attributes A1, A2, B1 and B2 = Poor condition).	1
	Score achieved:	

Condition categories for hedgerows with trees

Category	Category Requirements	Metric score
Good	No more than 2 failures in total; **AND** No more than 1 failure in any functional group.	3
Moderate	No more than 5 failures in total; **AND** Does not fail both attributes in more than one functional group (for example, fails attributes A1, A2, B1, C2 and E1 = Moderate condition).	2
Poor	Fails a total of more than 5 attributes; **OR** Fails both attributes in more than one functional group (for example, fails attributes A1, A2, B1 and B2 = Poor condition).	1
	Score achieved:	

Suggested enhancement interventions to improve condition score

Condition Sheet: INDIVIDUAL TREES Habitat Type

Habitat Types

Individual trees – Urban trees
Individual trees – Rural trees
Complete a condition sheet for each tree or block of trees.

Please see separate Line of trees condition sheet for a line of Rural trees.

Habitat Description

Individual trees (description applied to the urban or rural environment):
Young trees over 7.5 cm in diameter at breast height whose canopies are not touching.

Urban Perimeter / Linear Blocks and Groups (description applied to the urban environment only):
Groups or stands of trees (size requirement as defined above) within and around the perimeter of urban land. This includes those along urban streets, highways, railways and canals, and also former field boundary trees incorporated into developments. Canopies must overlap continuously. Groups of urban trees that don't match the descriptions for woodland may be assessed within this category.

On-site or off-site, site name and location		**Survey date and Surveyor name**										
		Survey reference (if relating to a wider survey)										
Limitations (if applicable)		**Habitat parcel reference**										
		T1	T2	T3								
		Grid reference										

	Condition Assessment Criteria	**Criterion passed (Yes or No)**									**Notes (such as justification)**
A	The tree is a native species (or at least 70% within the block are native species).	Y	Y	Y							
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	Y	Y	Y							
C	The tree is mature (or more than 50% within the block are mature)[1].	Y	Y	Y							
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	Y	Y	Y							
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	Y	Y	Y							
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	Y	Y	Y							
	Number of criteria passed										

Condition Assessment Result (out of 6 criteria)	**Condition Assessment Score**	**Score Achieved ×/✓**									
Passes 5 or 6 criteria	Good (3)	Y	Y	Y							
Passes 3 or 4 criteria	Moderate (2)										
Passes 2 or fewer criteria	Poor (1)										
Note that 'Fairly Good and Fairly Poor' condition categories are not available for this broad habitat type.											

Appendix 6976/5:

Draft Masterplan

- Site Boundary
- Site Access
- Other Land Under Control of Applicant
- Primary Street
- Potential Access to Future Development
- Secondary Street
- Shared Surface
- Private Lanes
- Walking and Cycle Route
- Indicative Proposed Landscaping
- Existing Landscape
- Indicative Playing Fields Parking
- Potential Key Buildings
- Frontages
- Residential Development
- Potential Access to Adjacent Playing Field
- Area for Ecological Enhancements
- Potential Pedestrian/Cycle Access to Houlton Way
- Potential Allotments Access (Vehicular)
- Indicative Area for Children's Play
- Potential Extension to Adjacent Playing Fields
- Indicative Surface Water Attenuation
- Indicative Area of Wildflower and

Visual Scale 1:2500 @ A3

0 50m 75m 100m

Marrons

Land East of Rugby Road,
Clifton-upon-Dunsmore
Framework Plan

Catchment 2
Total Developable area: 1.50ha
Estimated impermeable area (65% + 10% urban creep): 1.07ha

SuDs Footprint: 0.18ha
Total Impermeable area (SuDs + impermeable area) = 1.25ha

QBAR: 5.4l/s

Foul Water Manhole 3001
IL: 106.14
Proposed foul point of connection.
Subject to pre development enquiry.

Filter Drain proposed
for Exceedance Storm Event.

Attenuation Basin 2
CL: 109.2mAOD
IL: 107.8mAOD
Maximum water depth*: 1m
Minimum freeboard*: 400mm
Maximum water volume*: 1,100m³
Total approximate footprint: 1,765m²
Discharge Rate: 5.4l/s
CV Value: 1
*During the 1 in 100-year + 40% critical storm.

3m maintenance walkway buffer.
1:4 minimum internal side slopes.

Further coordination required to determine levels and drainage solution for access road

Foul Pumping Station
To be accessed via public highway.
15m easement from wetwell to nearest dwelling and third-party land.

Catchment 1
Total Developable area: 2.80ha
Estimated impermeable area (65% + 10% urban creep): 2.0ha

SuDs Footprint: 0.33ha
Total Impermeable area (SuDs + impermeable area) = 2.33ha

QBAR: 10.0l/s

Attenuation Basin 1
CL: 108.8mAOD
IL: 107.4mAOD
Maximum water depth*: 1m
Minimum freeboard*: 400mm
Maximum water volume*: 2,105m³
Total approximate footprint: 3,280m²
Discharge Rate: (Basin 2 + Basin 1) = 15.4l/s
CV Value: 1
*During the 1 in 100-year + 40% critical storm.

3m maintenance walkway buffer.
1:4 minimum internal side slopes.

CL: 112.50m
IL: 106.50m
DEPTH: 6.0m

Existing Watercourse

Indicative Route, subject to further survey

Outfall IL: 97.0mAOD
Site Visit in Jan 2025 found this to be the closest possible outfall.

Notes

1. Do not scale this drawing. All dimensions must be checked/ verified on site. If in doubt ask.
2. All dimensions in millimetres unless noted otherwise. All levels in metres unless noted otherwise.
3. This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.
4. Any discrepancies noted on site are to be reported to the engineer immediately.
5. Enclosed Masterplan based on Marrons Framework Plan dated 08.05.25.
6. A greenfield QBAR runoff rate of 4.3l/s/ha as been calculated for the site. Warwickshire County Council guidance states that the discharge rate should be calculated based upon the impermeable/contributing area and the same area should be used in the drainage design. The runoff rate of 15.4l/s has therefore been calculated using the impermeable area of 3.58ha
7. All basins have been designed to accommodate the 1 in 100-year + 40% critical storm event with a 400mm freeboard. The attenuation calculations has been undertaken using Flood Estimation Handbook (FEH) rainfall data.
8. The impermeable area is assumed to be 65% of the developable area. An additional 10% allowance has been included to account for urban creep.
9. All detention basins to have minimum 1:4 internal side slopes. Basin forebays and erosion protection should be considered at detailed design.
10. Surface water outfall route subject to consultation with the LLFA
11. This strategy is a proof of concept only and all details are to be confirmed at the detailed design stage in agreement with all relevant statutory consultees. Do not construct based on this drawing.

Legend

- Wider Site Boundary
- Indicative Site Boundary
- Attenuation Basin with 1 in 3 grading
- 3m Maintenance Area
- Catchment 1
- Catchment 2
- Proposed Headwall
- Proposed Surface Water Flow Control Chamber
- Proposed Surface Water Sewer
- Proposed Swale
- Existing Watercourse
- Proposed Earthworks
- Existing Foul Water Sewers
- Foul Water Rising Main
- Proposed Foul Water Sewers
- Foul Water Pumping Station
- Badger Set with 20m Offset
- Proposed Outfall Surface Water Sewer Easement (10m Total)
- Gradient
- Filter Drain

Rev	Date	Details of issue / revision	Drw	Rev
P05	11.07.25	Masterplan updates	AS	RJ
P04	16.06.25	Masterplan updates	AS	LDR
P03	27.05.25	Masterplan updates	AS	LDR
P02	08.04.25	Preliminary Issue	AS	LDR
P01	14.02.25	Preliminary Issue	AS	LDR

Issues & Revisions

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Client
RICHBOROUGH

Project Title
LAND EAST OF RUGBY ROAD

Drawing Title
ILLUSTRATIVE DRAINAGE STRATEGY

Drawn:	A. Shademani		Reviewed:	L. Ream	
BWB Ref:	244849	Date:	14/02/25	Scale@A1:	1:1000

Drawing Status
PRELIMINARY

Project - Originator - Zone - Level - Type - Role - Number	Status	Rev
244849-BWB-ZZ-XX-D-W-0001	S2	P04

ecology • landscape planning • arboriculture

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