



KC Planning and Development

Swedish Cottage, Leicester Road, Earl Shilton

ECOLOGICAL IMPACT ASSESSMENT

March 2024

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NON-TECHNICAL SUMMARY

Report Scope and Methodology
• FPCR have been commissioned by KC Planning and Development to undertake an Ecological Impact Assessment (EIA) at land adjacent to Swedish Cottage, Leicester Road, Earl Shilton, Leicestershire to provide an ecological baseline for the site and determine its ecological importance. • The site is proposed for a development comprising six new homes with associated infrastructure and a proposed amendment to a meeting hall on site with approved planning permission. • A UKHab survey, habitat condition assessment and desktop study have been undertaken to inform this assessment.
Ecological Baseline
• Four sites of conservation interest were recorded within 1km of the site: Thurlaston Brook Earl Shilton cLWS, Peckleton hedgerows pLWS, Earl Shilton meadows stream and hedges cLWS and Thurlaston Brook hedgerow pLWS . These conservation sites were considered to be Important Ecological Features (IEFs) at a county level. • The site is dominated by modified grassland. Other habitats present include buildings, hardstanding, small areas of scrub and of tall forbs, a pond and scattered trees. None of these habitats were considered IEFs since they represent common and widespread habitats supporting limited botanical diversity and with no protections under local, national or international policies and legislation. • The site supports suitable habitats for a range of common and widespread generalist bird species, which were considered an IEF at a site scale. • The site supports suitable aquatic and terrestrial habitat for great crested newts (GCN), which were considered an IEF at a local scale. • The site supports suitable habitat for small numbers of common and widespread reptiles, which were considered an IEF at a site scale.

Residual Effects

- Assessment has demonstrated that in the absence of mitigation, proposals would lead to moderate adverse impacts significant on a local scale for GCN and minor adverse effects significant at a site level for nesting birds and reptiles.
- A combination of intrinsic mitigation, targeted mitigation, compensation and ecological enhancement detailed within this EcIA has demonstrated that proposals are anticipated to lead to negligible to minor beneficial effects for all IEFS, except reptiles which is precautionarily anticipated to lead to a minor adverse impact at a site scale at an insignificant level.

1.0 INTRODUCTION

- 1.1 The following Ecological Impact Assessment (EcIA) has been prepared by FPCR Environment & Design Ltd. on behalf of KC Planning and Development and provides an Ecological Appraisal of land adjacent to Swedish Cottage, Leicester Road, Earl Shilton, Leicestershire (Ordnance Survey Grid Reference SP 4692 9853).
- 1.2 To inform this assessment, a UK Habitat (UKHabs) survey, a Habitat condition assessment and a Preliminary Protected Species survey were undertaken at the site. This EcIA should be read in conjunction with the Biodiversity Net Gain Report¹ for the site.
- 1.3 The aim of this EcIA is to:
- Provide a summary of the methods and results of all survey work to establish an ecological baseline;
 - Identify and describe all potentially significant ecological effects associated with the proposed development on the important ecological features;
 - Set out the mitigation measures required to ensure compliance with nature conservation legislation and to address any potentially significant ecological effects;
 - Provide an assessment of the significance of any residual effects;
 - Identify appropriate enhancement measures and consider biodiversity net gain; and
 - Set out the requirements for post-construction monitoring.

Site Location and Context

- 1.4 The site is approximately 0.61ha and is located off Leicester Road on the northern fringes of Earl Shilton. The site comprises small, grazed grassland fields, buildings, an area of hardstanding, a small area of scrub, a pond and scattered trees.
- 1.5 The majority of the site is bound by hedgerows which lie outside the site boundary. Roads are located adjacent to the western, southern and eastern boundaries, with agricultural fields situated beyond these and to the north.

Site Proposals

- 1.6 The proposals include the construction of six houses, along with associated access and landscaping. The proposals also include amendments to a building on site with approved full planning permission to be converted into a meeting hall (23/00596/FUL). These alterations involve the partial demolition of building section B1b (please refer to Figure 2 for building locations).

Scope

- 1.7 This EcIA relates to the redline boundary as shown in Figure 2. Only the impacts to section B1b of the meeting hall building have been assessed, which is the only area of the building to be impacted by the proposed amendments of the approved planning permission.

¹ FPCR Environment and Design Ltd. (2024) *Swedish Cottage, Leicester road, Earl Shilton - Biodiversity Net Gain Report*

- 1.8 This EclA considers the likely significant effects of the proposals on Important Ecological Features (IEFs) which include statutory and non-statutory designated sites of nature conservation value within the zone of influence, habitats with ecological value within the Site, and protected and/or notable species with ecological value that may be present and supported by habitats at the Site.

2.0 LEGISLATION AND POLICY

2.1 Detail on the relevant national and local policy and legislation for ecology in relation to development sites are provided in Appendix A. The national policy and legislation most relevant are:

- The Conservation of Habitats and Species Regulations (CHSR) 2017 (as amended) in relation to the European Protected Species (EPS) great crested newt *Triturus cristatus* (GCN), bats (all species) and dormouse; and European protected sites i.e. Special Areas of Conservation (SAC), Special Protection Areas (SPA) and internationally protected “Ramsar Sites” (collectively known as “Natura 2000 sites”).
- The Wildlife and Countryside Act 1981 (WCA) (as amended) in relation to all wild birds (including Schedule 1 species), other animals (notably Schedule 5 species), flora (those listed in Schedules 8 and 9) and Sites of Special Scientific Interest (SSSI) and National Nature Reserves (NNR);
- Protection of Badgers (PBA) Act 1992;
- Hedgerow Regulations 1997 made under Section 97 of the Environment Act 1995;
- Natural Environmental and Rural Communities (NERC) Act 2006 in relation to Species of Principal Importance (SPI) and Habitats of Principal Importance (HPI) and Local Nature Reserves (LNR);
- National Planning Policy Framework (NPPF) (2021);
- The Environment Act 2021;
- Local Planning Policy contained within the Hinckley and Bosworth Local Plan and associated Supplementary Planning Documents (SPD)
- Non-statutory protected local sites including County Wildlife Sites (CWS), Sites of Importance for Nature Conservation (SINC), Local Wildlife Sites (LWS) and Ancient Woodland Inventory (AWI) sites;
- Local Biodiversity Action Plans (LBAP); and
- Birds of Conservation Concern (BoCC) classifications.

3.0 METHODOLOGY

Desk Study

- 3.1 In order to compile existing baseline information, relevant ecological information was requested from Leicestershire and Rutland Biological Records Centre (LRERC).
- 3.2 In addition, the following resources were checked for additional information and context:
- Multi Agency Geographic Information for the Countryside (MAGIC) website²;
 - Colour 1:25,000 OS base maps³;
 - Aerial photographs from Google Earth⁴.
- 3.3 The geographical extent of the search area for biodiversity information was related to the significance of sites and species and potential zones of influence, as follows:
- 10km around the application area for sites of International Importance (e.g. SAC, SPA, Ramsar site).
 - 2km around the site boundary for statutory sites of National, Regional or County Importance (e.g. NNR, SSSI, LNR);
 - 1km around the site boundary for non-statutory designated sites of County Importance (e.g. LWS), other sites of conservation importance and for protected or otherwise notable species records (including SPI under Section 41 (S41) of the NERC Act 2006).
- 3.4 When handling data, species data was filtered to include records from the previous 20 years only (since 2004).

UK Habitat Survey and Condition Assessment

- 3.5 The survey was completed on the 15th January 2023 by Matthew Falconer; a Senior Ecologist, with over eight years' ecologist experience and a Botanical Society of Britain & Ireland (BSBI) Field Identification Skills Certificate (FISC) Level 4 certification. Habitats were identified and mapped broadly following the UKHab 2.0 classification system⁵ and assessed for their condition using methodology as detailed within the Statutory Biodiversity Metric Technical Annexes (Natural England 2023)⁶.
- 3.6 Vascular plant nomenclature followed Stace (2019)⁷. Representative plant species lists were compiled for each habitat mapped, with an assessment of abundance made using the DAFOR scale. Quadrat data was used for grassland habitats to ensure a robust condition assessment, with all vascular plants recorded within each quadrat.

² [Online]. <http://magic.defra.gov.uk/>

³ [Online]. www.ordnancesurvey.co.uk

⁴ [Online]. www.maps.google.co.uk

⁵ UKHab Ltd (2023). *UK Habitat Classification Version 2.0* (Available at: <http://www.ukhab.org>)

⁶ Natural England (2023). *Biodiversity Metric 4.1 – Technical Annex 1* (Available at <https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides>)

⁷ Stace, C (2019) *New Flora of the British Isles*. 4th edn. C&M Floristics

Protected/Notable Species

- 3.7 During the UKHab survey, observations, identification and signs of any species protected under the following list of Acts and Regulations (collectively referred to herein as 'Protected Species') were recorded:
- The WCA 1981 (as amended);
 - The PBA 1992; and
 - The CHSR 2017 (as amended).
- 3.8 Consideration was also given to the existence and use of the Site by other fauna listed as one or more of the following (collectively referred to herein as 'Notable Species'):
- SPI for the conservation of biodiversity in England on the NERC Act S41;
 - Species listed on any LBAP initiatives; and
 - Red Data Book (RDB) species.
- 3.9 The following surveys were carried out during the UKHab survey, with details of survey methodologies provided in Appendix B:
- Presence/absence surveys for badger following methodologies outlined by Harris, Creswell and Jefferies (1991)⁸;
 - Ground based assessment of trees and internal and external assessment of buildings following methodologies provided in *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (J., Collins (Bat Conservation Trust), 2023)⁹ and within p16, BS 8596:2015¹⁰; and
 - Habitat Suitability Index (HSI) Assessment of the waterbody within the site boundary for its potential to support a breeding population of GCN as developed by Oldham, Swan and Jeffcote¹¹.

Evaluation and Assessment Methodology

- 3.10 The assessment of significant ecological effects for this EcIA will be undertaken in accordance with the ecological impact assessment guidelines published by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2018). This process is detailed in Appendix C and can be summarised as follows:

⁸ Harris, S., Cresswell, P. and Jefferies, D., (1991). *Surveying Badgers*. The Mammal. Society, Bristol.

⁹ Collins, J. (ed.) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (4th edn), The Bat Conservation Trust, London.

¹⁰ British Standards Institution, (2015) *BS 8596:2015 Surveying for bats in trees and woodland*. Milton Keynes: BSI

¹¹ Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000). Evaluating the suitability of habitat for the Great Crested Newt (*Triturus cristatus*). *Herpetological Journal* 10 (4), 143-155.

Table 1: Summary of CIEEM Guidelines on Ecological Impact Assessments

Ecological Impact Assessment Stages
Establish Baseline: this is based on desk study and field surveys and describes the existing and potential Important Ecological Features (IEFs) within the zones of influence laid out in the scope and methodology above.
Determine the Scale of Importance of Ecological Features: importance is determined using geographical frame of reference as follows - Local, County, Regional, National and International. This assessment is based on a variety of factors the most significant of which are; statutory protection, statutory designation, conservation status (e.g. BoCC red and amber bird lists, S41 species, red data book and LBAP species), and significance of the feature in terms abundance and rarity.
Assessment of Significant Ecological Effects: most simplified, this is based on the importance of the ecological feature, magnitude of the effect and sensitivity of the features considered. Assessments are description based rather than applying use of a matrix, and consider construction and operation effects only where relevant. The assessments of effects will be based assuming the proposed layout and intrinsic mitigation, as well as expected routine ecological mitigation normally conditioned as part of an outline application, has been actioned and these are outlined clearly.
Mitigation: will be outlined based on the Mitigation Hierarchy – avoidance, mitigation, compensation and enhancement. Any further mitigation will be outlined here that ensure residual effects are lowered to a level considered acceptable. Enhancements will seek biodiversity net gain in line with the NPPF. Monitoring will be considered where applicable.
Future Baseline and Residual Effects: final conclusionary statements considering short, medium and long term.

- 3.11 Only those Important Ecological Features (IEF) that are most likely to be affected and are either protected or of sufficient value to merit consideration will be considered. Equally, and in line with BS 42020 Biodiversity Code of Practice for Planning and Development ¹² and the CIEEM guidance, the focus will only be on *significant* ecological effects, and not *any* ecological effect possible.

Limitations

- 3.12 This assessment aims to provide baseline ecological data for the site, and as such, presents an overview of the habitats and features present. Due to the complex nature of ecosystems, no investigation can provide a complete representation or prediction of the natural environment present, however every effort has been made to ensure an accurate description of the site is presented following best practice guidance, experience and professional judgement.
- 3.13 The UKHab map (Figure 2) has been reproduced from detailed field notes and informed by aerial imagery, OS mapping and site maps provided by the client. The accuracy of this figure is therefore ultimately guided by the accuracy of these sources.
- 3.14 Data provided by third party sources collated during the desktop study is generally made up from a wide range of sources including (but not limited to) those submitted by ecological consultancies, wildlife conservation organisations and Volunteers. As such, this data is typically focused on areas of known nature conservation, is reliant upon formal surveys having been undertaken within an area or the presence of an expert within the locality (particularly for invertebrate records) and as such this data can never be fully relied upon as a complete ecological dataset for any given area.

¹² British Standards Institution (2013) BS42020 Biodiversity. Code of Practice for Planning and Development Milton Keynes BSI.

Rather, this data is used as a guide to likely presence of notable ecological features and can never be relied upon for likely absence.

- 3.15 The habitat survey was carried out in January, which although is a sub-optimal time of year for botanical surveys, is acceptable for low to moderate value habitats. No higher value habitats requiring surveying in the relevant optimum period were present on site.

4.0 ECOLOGICAL BASELINE

Desk Study

Designated Sites

- 4.1 There are no statutory or non-statutory designated sites within the relevant zones of influence of the site.
- 4.2 Four other sites of conservation importance were located within 1km of the application site boundary. These comprised two candidate LWS and two potential LWS, the details of which are provided in Table 2 below. The locations of these are provided on Figure 1a. According to Leicester, Leicestershire and Rutland Local Wildlife Site criteria¹³:
- Candidate Local Wildlife Sites (cLWS) are defined as sites that have not been through the formal notification process as an LWS, but which are known through survey data to meet the LWS criteria; and
 - Potential Local Wildlife Sites (pLWS) are defined as sites that have not been through the formal notification process as an LWS, but are likely to meet the LWS criteria, although further survey is required to confirm this.

Table 2: Sites of Conservation Importance Located within the Search Area

Site Name	Designation	Distance from Site	Description
Thurlaston Brook, Earl Shilton	cLWS	380m northeast	Brook with a water crowfoot and meanders.
Peckleton, hedgerows	pLWS	700m north	Two species-rich hedgerows, with total species recorded 8 and 11. Not fully surveyed.
Earl Shilton meadows, stream and hedges	cLWS	870m south	Series of seven species-rich meadows, three of which meet LWS criteria. Also present is a stream with water voles <i>Arvicola amphibius</i> , two veteran ash <i>Fraxinus excelsior</i> trees and two species-rich hedges. A pond is present with GCN recorded in 2016 but not present 2021.
Thurlaston Brook hedgerow	pLWS	950m west	Hedgerow

SSSI Impact Risk Zones

- 4.3 SSSI Impact Risk Zones (IRZ) are used to assess planning applications for likely impacts on SSSIs, (which can also be designated as SACs, SPAs or Ramsar sites). Part of the proposed site sits

¹³ Leicester, Leicestershire & Rutland Local Wildlife Sites Panel. (2011). *Guidelines for the selection of Local Wildlife Sites (previously known as Sites of Importance for Nature Conservation or SINCs) in Leicester, Leicestershire and Rutland – Revised 2011*. [Online]. Available at: https://www.leicestershire.gov.uk/sites/default/files/field/pdf/2016/8/22/Guidelines_LWS.pdf [Accessed 08/02/2024].

within Natural England's SSSI IRZ for the following proposals, which are not of relevance to the residential proposals for the site:

- Infrastructure: Airports, helipads and other aviation proposals.
- Air Pollution: Livestock & poultry units with floorspace over 500m², slurry lagoons & digestate stores over 750m², and manure stores over 3500t.
- Discharges: Any discharge of water or liquid waste of more than 20m³/day to ground (i.e. to seep away) or to surface water, such as a beck or stream.

Protected/Notable Species

- 4.4 Species records from the previous 20 years within a 1km radius of the site boundary were provided by LRERC. The record locations are provided on Figure 1b, with relevant species summarised in the protected / notable species section below. Badger records are not displayed on Figure 1b due to their confidential nature.
- 4.5 No records with a grid reference of 6 figures or greater are located within the site boundary. Twelve records originate from the SK4698 monad, a small percentage (<0.5%) of which falls within the site boundary. These records comprise hedgehog *Erinaceus europaeus*, cherry laurel *Prunus lauroceracus*, scarlet pimpernel *Anagallis arvensis*, common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, brown long-eared bat *Plecotus auritus*, *Myotis* species, noctule *Nyctalus noctula* and serotine *Eptesicus serotinus*.

UK Habitat Survey

- 4.6 The locations of the habitats described below are illustrated in Figure 2: UKHab Plan. A botanical species list is provided in Appendix D.

Modified Grassland



Photograph 1 & 2: Grazing fields containing modified grassland

- 4.7 The majority of the site was modified grassland grazed by horses. Sward height was varied, with a tussocky nature to the majority of the grassland. Species diversity was low with an average of 7.5 species per m². The sward was dominated by grasses, comprising over 90% cover, with perennial rye-grass *Lolium perenne* the most abundant species (over 30% coverage), indicating high nutrient conditions. Other grasses included abundant Yorkshire-fog *Holcus lanatus*, locally abundant red fescue *Festuca rubra* and frequent common bent *Agrostis capillaris*. Broadleaved

herbs were limited in the sward and comprised common and widespread species typical of neutral grasslands including yarrow *Achillea millefolium*, creeping cinquefoil *Potentilla reptans*, creeping buttercup *Ranunculus repens* and ribwort plantain *Plantago lanceolata*.

- 4.8 The grassland on site is representative of common and widespread grasslands that have not been managed for biodiversity, with consequently limited botanical species diversity. Modified grassland is **not considered to be an IEF**.

Mixed Scrub



Photograph 3: Small area of wild plum scrub

- 4.9 A small area of dense scrub was located on the northeast boundary, adjacent to an offsite hedgerow. The shrub layer was dominated by wild plum *Prunus domestica* and ranged in age from saplings on the scrub edges to young and semi-mature specimens in the centre. The field layer was limited, comprising abundant common nettle *Urtica dioica*, with other species including spear thistle *Cirsium vulgare*, cleavers *Galium aparine* and lords-and-ladies *Arum maculatum*.
- 4.10 The scrub habitat on site is a common and widespread habitat with low species diversity. The mixed scrub habitat is **not considered to be an IEF**.

Tall Forbs



Photograph 4: A small area of tall forbs

- 4.11 A bund vegetated by tall forbs was present in the northwest of the site. The vegetation was 0.5-1m and dominated by common nettle. Other species present occasionally within the vegetation included bramble *Rubus fruticosus* agg. and hedge mustard *Sisymbrium officinale*. The habitat was a common and widespread habitat of low species diversity and is **not considered an IEF**.

Non-Priority Pond



Photograph 5: A small artificial pond (P1)

- 4.12 A small artificially created rectangular pond (P1), approximately 4m x 2m in size, was located in the east of the site. Emergent and marginal vegetation covered approximately 60% of the pond surface and comprised soft-rush *Juncus effusus* and iris *Iris sp.*. The pond was partially shaded by the neighbouring line of trees.
- 4.13 The pond did not meet the criteria for a HPI under NERC S.41 or a habitat of local importance under the Leicester, Leicestershire and Rutland Local Wildlife Site criteria and is **not considered to be an IEF**.

Line of Trees



Photograph 6: A line of Lawson's cypress trees

- 4.14 A line of approximately twelve mature Lawson's cypress *Cupressus lawsoniana* was situated in the east of the site. The trees were in a healthy condition and formed a continuous canopy along the feature. The line of trees on site was comprised entirely of non-native species with limited benefits to biodiversity and is **not considered to be an IEF**.

Urban Trees



Photograph 7: An immature field maple (T1, foreground) and mature goat willow (T2, background)



Photograph 8: A mature hybrid black-poplar (T4)

- 4.15 Four scattered trees were located within the site. These comprised an immature field maple *Acer campestre* (T1), a mature goat willow *Salix caprea* (T2) and wild cherry *Prunus avium* (T3), all native species. There was also a large mature hybrid black-poplar *Populus x canadensis* (T4), a non-native species. Due to their setting adjacent to hardstanding and buildings, and within the peripheries of Earl Shilton they were categorised as 'urban' rather than 'rural'. None of the trees meet the definition of 'Mature trees', a habitat of local importance under the Leicester, Leicestershire and Rutland Local Wildlife Site criteria. The scattered trees are **not considered to be an IEF**.

Hardstanding

- 4.16 An area of hardstanding was present in the south of the site, currently used as a car park. The hardstanding on site is of no ecological value and is **not an IEF**.

Buildings

- 4.17 Building B1 was a vacant commercial building and was comprised of several sections. Only section B1b is relevant to this application. Three further small buildings (B2, B3 and B4) were located within the site boundary. Further information on these buildings is given within the bat section below.
- 4.18 These buildings have negligible intrinsic ecological value and are therefore **not considered IEF**.

Protected / Notable Species

Badger

- 4.19 Fourteen badger records were returned from within 1km of the site, the closest of which was an outlier sett 186m southwest from the site boundary. These are not displayed on Figure 1b due to their confidential nature.

- 4.20 Whilst the small area of scrub within the site provided a limited potential area for sett creation, and the grassland and tall ruderal were suitable for foraging, no evidence of badger activity was recorded during the survey or within 30m of the boundary (where accessible). **The species was therefore not considered an IEF for the site.**

Bats

Records of Bats

- 4.21 73 records of bats were returned within 1km of the site, twelve of which were roost records. Species comprised common pipistrelle, soprano pipistrelle, Nathusius's pipistrelle *Pipistrellus nathusii*, *Pipistrellus* species, brown long-eared bat, *Myotis* species, noctule, *Nyctalus* species, serotine, and unidentified bat species. None of the bat records with a grid reference of 6 figures or greater are located within the site boundary. Eight records originate from within SK4698, a small percentage (<0.5%) of which falls within the Site.

Assessment of Buildings

- 4.22 Table 3 below details the results of internal and external assessments of the buildings relevant to the development proposals.

Table 3: Building Inspection Results

Building number and Photograph	Description
B1b  	<u>External</u> B1b was a vacant commercial building, attached to other buildings and lean-tos. B1b was single storey, with the bases of the walls constructed of concrete breezeblocks and the upper sections of plywood sheets. The mono-pitched roof was constructed from corrugated metal. On the front of the building (south aspect) was a metal rolling shutter door and a metal personnel door. A metal shelter was attached over the doors and corrugated metal cladding was present above this. Metal fascias were present on the south and east aspects. No potential access points for bats were present, with all boarding, fascias and cladding fitting flush with no gaps. <u>Internal</u> An internal inspection was not possible during the survey visit. Due to the lack of bat access points into the building interior, and the nature of the building design and condition, it is considered that sufficient information was collected during the survey to confidently assess its potential for roosting bats. <u>Evidence</u> No evidence of roosting bats was identified during the survey.

Building number and Photograph	Description
	<u>Bat Roost Potential</u> Negligible potential - no further survey required <u>Further Notes</u> Building B1b is part of a wider building complex which has approved planning permission to be converted to a meeting hall. The proposed amendment relevant to this report involves the partial demolition of building B1b, with the approved plans for the remainder of the buildings in the complex left unchanged. Building B1b is directly attached to building B1a, which is to be retained under the approved planning permission. Since the proposed demolition of B1b only involves approximately 50% of the building on the far side of B1a, any impacts of these amendment proposals on the retained B1a are expected to be negligible.
B2 	<u>External</u> B2 was a single storey, prefabricated portable building, constructed of plastic and painted. The mono-pitch roof was constructed of metal and there was a door and several windows present. Wooden fascia and soffit boxes were present, with gaps located underneath the fascia and soffit boxes but these did not appear to allow access into the building interior. No other access points for bats were present. <u>Internal</u> An internal inspection was not possible during the survey visit. The lack of access points for bats into the building interior, and the nature of the building design and condition concluded that sufficient information was collected during the survey to confidently assess the potential for roosting bats. <u>Evidence</u> No evidence of roosting bats was identified during the survey. <u>Bat Roost Potential</u> Negligible potential – no further survey required.
B3	<u>External</u> B3 was a small single storey, livestock shelter constructed of concrete blocks. The mono-pitch roof was constructed of corrugated metal sheeting and there were wooden fascias present. An open entrance was present on the southern aspect with no door which allowed access into the interior of the structure.

Building number and Photograph	Description
	<u>Internal</u> The roof was constructed of sloping rough-cut beams and underfelt. The internal areas were exposed to the elements and no features were suitable for roosting bats.
	<u>Evidence</u> No evidence of roosting bats was identified during the survey.
	<u>Bat Roost Potential</u> Negligible potential – no further surveys required.
B4 	<u>External</u> A rudimentary livestock shelter constructed from sheets of corrugated metal. The structure was open fronted on the eastern and western aspects. There were no other features of note.
	<u>Internal</u> The interior was exposed to the elements and contained no potential bat roosting features.
	<u>Evidence</u> No evidence of roosting bats was identified during the survey.
	<u>Bat Roost Potential</u> No potential - no further surveys required.

Assessment of Trees

- 4.23 During the ground-based survey, all four trees within the site contained no Potential Roost Features (PRF) (lack of cracks, crevices etc.), with no bat evidence recorded in association with any of the trees. All the trees were therefore assessed as having no suitability for roosting bats.

Foraging and Commuting Habitat Suitability

- 4.24 Habitats within the site were of very limited value to foraging and commuting bats, with the small size of the site further limiting their value. The four trees and small area of scrub (approximately

0.01 ha) had some potential to provide foraging habitat but considering their very limited size and the presence of more suitable habitats in the wider area (extensive hedgerows, patches of woodland and scrub, Thurlaston brook corridor) the site was considered of no more than negligible value for foraging and commuting bats.

Site Value to Bats

- 4.25 Since all of the buildings and trees within the site and relevant to the proposals were of no or negligible potential for roosting bats, and the site habitats were of negligible value for commuting and foraging bats, **bats were not considered an IEF within the site.**

Birds

- 4.26 The desktop data search returned 213 records of 34 bird species within 1km of the site. No records were from within the site boundary. Species protected under Schedule 1 of the WCA included barn owl *Tyto alba*, hobby *Falco subbuteo*, kingfisher *Alcedo atthis*, merlin *Falco columbarius*, peregrine falcon *Falco peregrinus* and red kite *Milvus milvus*.
- 4.27 During the walkover survey, all bird species utilising the site or flying over were recorded. The species results are provided in Table 4 below.
- 4.28 A total of 13 bird species were recorded within the Site during the walkover. Five were considered 'notable species' as they appear on one or more of the following:
- Schedule 1 of WCA
 - Species listed as SPI in NERC S.41;
 - Birds of Conservation Concern (BoCC) Red or Amber lists;

Table 4: Bird Species Recorded and their Legal / Conservation Status

Species	Legal/ Conservation Status	Onsite or Flyover Only
Blackbird <i>Turdus merula</i>	Green List	Onsite
Blue Tit <i>Cyanistes caeruleus</i>	Green List	Onsite
Dunnock <i>Prunella modularis</i>	Amber List NERC S.41	Onsite
Greenfinch <i>Chloris chloris</i>	Red List	Onsite
Jackdaw <i>Corvus monedula</i>	Green List	Flyover only
Long-tailed Tit <i>Aegithalos caudatus</i>	Green List	Onsite
Magpie <i>Pica pica</i>	Green List	Onsite
Pied Wagtail <i>Motacilla alba</i>	Green List	Onsite

Species	Legal/ Conservation Status	Onsite or Flyover Only
Raven <i>Corvus corax</i>	Green List	Flyover only
Redwing <i>Turdus iliacus</i>	Amber List WCA Sch. 1	Onsite
Robin <i>Erithacus rubecula</i>	Green List	Onsite
Woodpigeon <i>Columba palumbus</i>	Amber List	Onsite
Wren <i>Troglodytes troglodytes</i>	Amber List	Onsite

- 4.29 The trees and area of scrub provided foraging and shelter opportunities for common and widespread generalist species. Notable species included dunnock *Prunella modularis*, wren *Troglodytes troglodytes*, greenfinch *Chloris chloris*, redwing *Turdus iliacus* and woodpigeon *Columba palumbus*.
- 4.30 The grassland habitats on site were of low or negligible value to birds and no species were recorded within these habitats during the survey visit.
- 4.31 During the breeding season the scrub and trees had potential to provide nesting habitat to common and widespread bird species, including low conservation concern migrant species such blackcap *Sylvia atricapilla* and chiffchaff *Phylloscopus collybita*.
- 4.32 The limited size and value of habitats on site means they only have potential to support widespread and common urban fringe generalist species. **Therefore, birds were considered an IEF on a site scale only.**

Great Crested Newts

- 4.33 Eighteen records of GCN were returned with 1km of the site, clustered 900-1000m southwest of the site boundary.
- 4.34 One pond (P1) is located within the site (Figure 2). The pond yielded a HSI score of 0.61, which is categorised as 'Average' suitability for breeding GCN with a predicted presence of 55%. The full HSI assessment results are provided in Appendix E. According to OS maps a further two ponds are located within 250m of the site boundary (Figure 3). Pond P2 is located approximately 85m south at its closest point and pond P3 approximately 225m southeast.
- 4.35 The modified grassland within the site has a tussocky nature and, together with the tall forbs, has some suitability for foraging and commuting GCN. The scrub provides a limited area of potential habitat for shelter and hibernation as well as foraging.
- 4.36 The site contains suitable aquatic and terrestrial habitats for GCN and therefore on a precautionary basis **the species was considered an IEF on a local scale.**

Reptiles

- 4.37 There are three records of reptiles within 1km of the site. All are of grass snake *Natrix helvetica*, the closest of which is 290m southwest of the site boundary.

- 4.38 The grassland within the site is tussocky over the majority of its area and has some suitability as foraging habitat for common reptile species. The shrub bases within the scrub provided potential hibernation and shelter opportunities. The bund vegetated with tall forbs provided some suitability for foraging and basking. The hardstanding and buildings were of no suitability for reptiles.
- 4.39 The site has suitable albeit sub-optimal habitats to support a small population of common reptiles and therefore on a precautionary basis **reptiles are considered an IEF on a site scale**.

Likely Future Baseline Conditions

- 4.40 Where proposals do not proceed, it is considered that habitats on site would likely remain in the same condition as currently present. The site is grazed by horses, and it is reasonable to assume this would continue where use of the site as residential land does not proceed. The scrub, trees and pond appear to receive no management and their condition is likely to remain the same.
- 4.41 Buildings B3 and B4 were utilised as livestock shelters and this use would likely continue with upkeep and repairs associated with this likely maintaining their current suitability for bats. Building B1b and B2 are currently vacant, and it is possible over a long period without upkeep they could fall into disrepair and their suitability for bats increase.

Summary of Important Ecological Features

- 4.42 The suite of surveys and assessment have demonstrated that the site supports some IEFs. These are summarised in Table 5 below and have been assigned a geographic context based on the survey results and relevant legislation and policy following the methodology detailed in Appendix C.

Table 5: Important Ecological Features Identified On-Site

Important Ecological Feature	Relevant Legislation/Policy	Geographical Scale
Thurlaston Brook Earl Shilton cLWS, Peckleton hedgerows pLWS, Earl Shilton meadows stream and hedges cLWS, and Thurlaston Brook hedgerow pLWS	NPPF, Hinkley and Bosworth Local Plan	County
Birds	WCA, NERC S.41, BoCC	Site
Great Crested Newts	CSHR 2017, WCA Sch. 5, NERC S.41	Local
Common Reptiles	WCA Sch. 5, NERC S.41	Site

5.0 IMPACT ASSESSMENT

Development Proposals and Intrinsic Mitigation

- 5.1 The proposals are for up to six dwellings with associated green infrastructure and access. The proposals also include an amendment to the approved planning permission on the proposed meeting hall, involving the partial demolition of the building section B1b,
- 5.2 The proposed scheme includes the following intrinsic ecological avoidance, mitigation and enhancement measures:
- Outside of proposed residential gardens and house frontages, 0.03ha of Green Infrastructure (GI) is proposed, constituting tree planting and grassland creation.
 - The pond, the majority of scrub and one of the trees will be retained, however within the proposed curtilage of residential gardens and thus are required to be considered as lost due no obligation on the owners on their long-term retention or management. Numerous scattered trees and hedgerows will also be planted within the gardens and are considered in the same way.

Mitigation (etc) Core Documents

- 5.3 The following lists the core documents that will secure the mitigation and enhancement measures that are described in the impact assessment and ecological enhancement sections below. They can be secured through appropriately worded pre-commencement planning conditions attached to this outline application to be submitted and discharged at Reserved Matters once the detailed design layout and landscape scheme have been finalised. Example conditions are included in BS 42020 and it is recommended these are used as a basis for the wording used in the Decision Notice.
1. Construction and Environmental Management Plan for Ecology (CEMP: Ecology): This pre-commencement document contains the necessary Method Statements to ensure protected species are not unlawfully harmed during ground clearance, earthworks and during construction. The document will include an Ecological Constraints and Mitigation Plan drawing that clearly show the location of constraints and details mitigation required where necessary.
 2. Landscape and Ecological Management Plan (LEMP): this provides planting / landscape information that includes both the landscape and ecology features and their management for a minimum 5 years. The document will include ecological enhancement information as appropriate and can also include the final Biodiversity Net Gain assessment and final Ecological Mitigation and Enhancement Plan that shows location of wildlife boxes and other proposed features.

Assessment of Likely Significant Effects on Important Ecological Features

- 5.4 The status of the important ecological features identified on site have been reviewed against the proposals and intrinsic mitigation to determine whether there are any impact pathways to IEFs and whether any of these will lead to a likely significant effect in Table 5. The requirement for additional mitigation measures above the intrinsic mitigation has been considered for each of the IEFs where they can reduce the scale of negative effects or where they can encourage a positive effect.

Sites of Conservation Interest

Assessment of Impacts

- 5.5 The development is not expected to impact the two cLWS and two pLWS within 1km of the application site. The conservation sites are sufficiently distant that they would not be impacted during construction. While there may be a slight increase in visitor pressure to these sites, due to the extremely low number of houses proposed (6 houses) it is not expected to lead to a likely significant effect, given the size of the development and the presence of a number of existing public footpaths in the local area, offering a range of walking routes, including immediately adjacent to the application site.

Predicted Effects

Negligible impacts at a County Scale.

Birds

Assessment of Impacts

- 5.6 Based on the birds recorded during the ecological walkover, and the habitats present on site, it is considered the site supports a range of common and widespread generalist bird species, predominately in association with the trees and scrub habitats. The partial loss of these habitats will be compensated in the proposals design by the inclusion of tree planting. Additionally, the species supported on site readily inhabit vegetated gardens once mature. Given the small size of the site and extent of similar habitat locally, the proposals are therefore not likely to result in any significant effects to local bird populations.
- 5.7 The scrub and trees on site provide potential nesting habitats for birds. During the construction phase, the removal of woody vegetation during the bird breeding season has the potential to destroy active nests, which are protected under the WCA.
- 5.8 Increased noise during the construction phase may lead to a reduction in the breeding success of species within nearby adjacent habitats. Such noise impacts are likely to only be significant where they are caused by continuous sources close to suitable habitats where they would reduce the ability of birds to be able to hear song and in turn reduce the success of nesting attempts. Such continuous, loud noise sources are not anticipated in association with the construction proposals and impacts associated with noise are likely to be minor during the short-term at the site level.

Predicted Effect

- 5.9 **Minor Adverse at a Site Level** for nesting birds during the construction phase. **Negligible impact at a Site Level** for overall bird populations,

Mitigation

- 5.10 As a result of the special protection afforded to nesting birds, it is recommended the removal of woody vegetation (including trees and scrub) takes place outside of the bird breeding season (March to August inclusive) to minimise the risk of disturbance to nesting birds. If this is not

possible, such vegetation should be checked prior to removal by a suitably experienced ecologist. If active nests are found, vegetation should be left untouched and suitably buffered from works until all birds have fledged. Specific ecological advice should be sought prior to undertaking the clearance.

Enhancement

- 5.11 The provision of nest boxes will provide enhancement in terms of available nesting resources for local birds. The following provides details of suitable nest box types to be erected at suitable locations:
- The inclusion of 'universal' swift nest bricks within the proposed residential buildings. This will encourage this declining urban species to breed on site. The 'universal' nest bricks also provide nesting opportunities for other species including house sparrow, house martin *Delichon urbicum*, starling, great tit and blue tit *Cyanistes caeruleus*;
 - Small hole (26-32mm) boxes placed on suitable retained trees or on proposed residential buildings will provide further nesting opportunities for species such as blue tit and great tit. These boxes generally have a high uptake rate.

Residual Effect

- 5.12 **Negligible to Minor Beneficial at a Site Scale.**

Great Crested Newt

Assessment of Impacts

- 5.13 Without survey data, the impact assessment is precautionary based on the assumption of the presence of GCN on site. The proposals therefore have the potential to cause a legal offense by recklessly or intentionally disturbing, injuring or killing wild GCN, including affecting their local distribution and abundance.

Predicted Effect

- 5.14 **Moderate Adverse on a Local Scale**

Compensation

- 5.15 The site developers intend to join the GCN District Level Licencing (DLL) scheme available in the Hinkley and Bosworth District of Leicestershire. The DLL enquiry form was sent to Natural England on 12th February 2024. Through the DLL scheme the loss of habitat for GCN within the site is compensated for elsewhere within the district, maintaining the Favourable Conservation Status of this species in the local area. The site fall within the 'Amber' zone of the scheme so any impacted ponds with potential GCN present are compensated for on a 2:1 ratio.

Residual Effect

- 5.16 **Negligible at a Local Scale.**

Reptiles

Assessment of Impacts

- 5.17 Without survey data, the impact assessment is precautionary based on the assumption of the presence of reptiles on site. Consequently, in the absence of mitigation, construction operations associated with habitat clearance could result in the injury or death of reptiles, an offence under the WCA. Proposals will not lead to a significant loss of potential habitat for the local population due to the small size of the site and the suboptimal nature of the site habitats.

Predicted Effect

- 5.18 **Minor adverse at a Site Scale.**

Mitigation

- 5.19 The CEMP produced for the site will detail precautionary working measures to prevent harm to reptiles. These will include a scheme of passive displacement through the sensitive removal of suitable habitats. It is likely that the garden habitats will provide replacement habitats for species however as their security cannot be guaranteed, as a precautionary approach a minor adverse impact is predicted but on an insignificant level due to the small and suboptimal nature of the lost habitats.

Residual Effect

- 5.20 **Minor Adverse at a Site Scale at an insignificant level.**

Additional Ecological Enhancements

- 5.21 In addition to mitigation, compensation and enhancement for the Important Ecological Features identified, the site has been assessed for opportunities to provided ecological enhancements and lead to an overall biodiversity net gain.

Biodiversity Net Gain (BNG)

- 5.22 At the time of the planning application submission (January 2024), a 10% biodiversity net gain (BNG) through the DEFRA Biodiversity Metric was not a legal obligation.
- 5.23 Under the NPPF, developments should seek to contribute a net gain in biodiversity where possible. The emerging Hinckley and Bosworth Local Plan 2020 – 2039¹⁴ states under policy 'NAT08 Enhancing Biodiversity and Habitat Connectivity' that '*all development should provide a net gain in biodiversity where possible. As a minimum, there should be no net loss of biodiversity. All proposals should be supported by evidence to demonstrate a biodiversity net gain using the recognised biodiversity accounting metric*'.
- 5.24 The development proposals have been assessed under the Statutory Biodiversity Metric. Appendix F contains a Biodiversity Net Gain reporting for the site including the condition assessment results

¹⁴ Hinckley & Bosworth District Council (June 2021) *Hinckley & Bosworth Local Plan 2020-2039 June 2021 Consultation Draft Plan Regulation 18*. Available online: https://www.hinckley-bosworth.gov.uk/downloads/file/7356/draft_local_plan_2020_-_2039 [Accessed 08.02.2024]

of the baseline habitats and descriptions of the proposed design of the site habitats. The full metric calculation spreadsheet will be submitted accompanying this EcIA.

- 5.25 The proposed development leads to an onsite loss of 2.30 units for habitats equating to a 61.89% loss and a gain of 0.09 units for hedgerows equating to a 105.40% gain.
- 5.26 To achieve a net gain in biodiversity units, offsite land under the ownership of the client will be utilised for habitat creation and/or enhancements.

Additional Faunal Enhancements

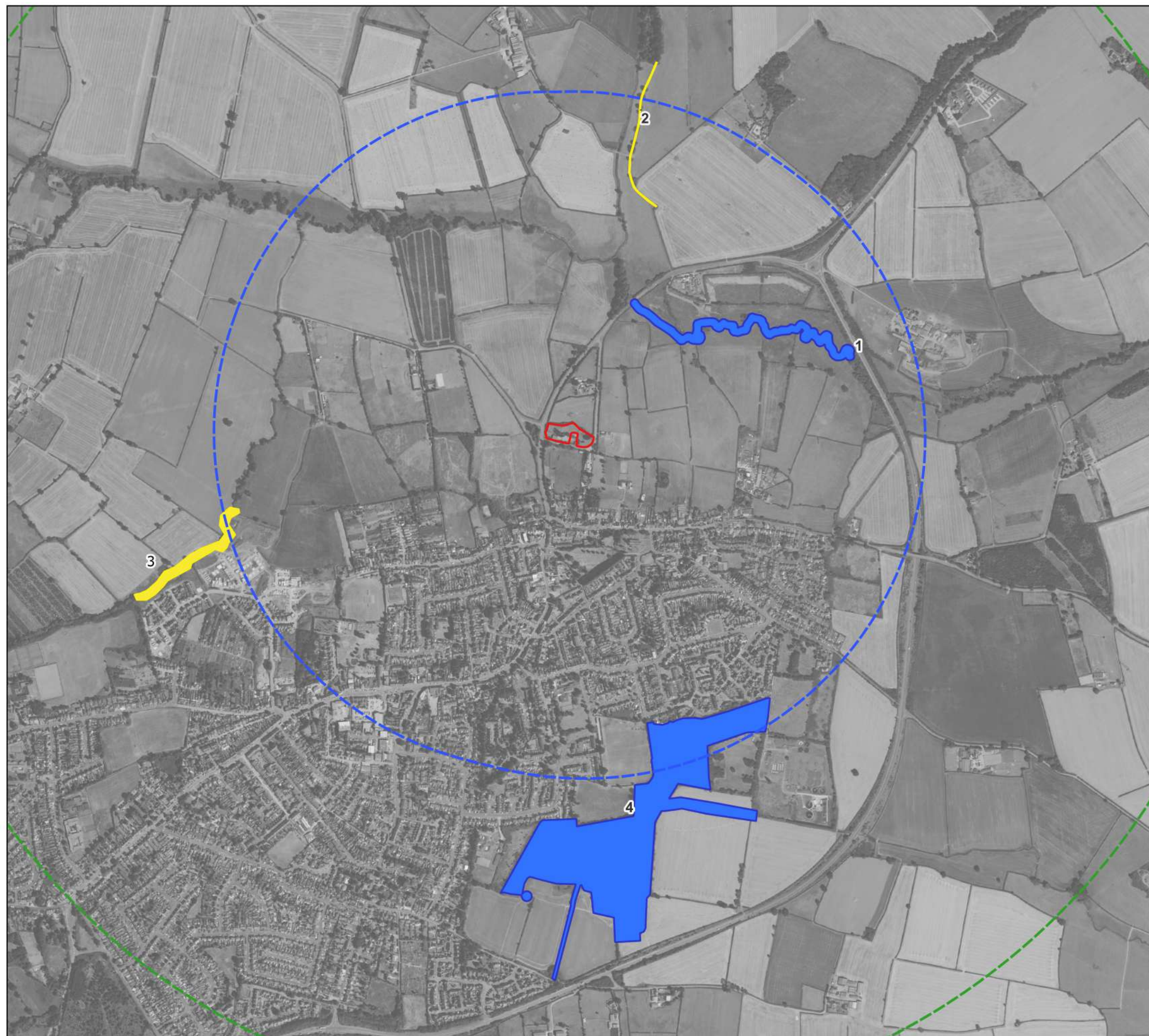
- 5.27 The proposals for the site offer a range of opportunities to incorporate enhancement features for a variety of faunal species. Table 6 offers a number of recommendations that could be easily incorporated within the scheme.

Table 6: Recommended Faunal Enhancement

Target Species Groups /	Enhancement Opportunities	Recommended Specifications
Bats	There is a current lack of suitable roosting features within the site.	A range of bat boxes will be erected on suitable retained mature trees and on the proposed residential buildings.
	Minimising light spill on the negligible levels of foraging and commuting bats	• The avoidance of direct lighting of retained and proposed trees on site and the offsite hedgerows; • Unnecessary light spill into these features to be controlled through a combination of LED directional lighting, low lighting columns, hooded/shielded luminaires and/or strategic planting; • Light free of UV emissions to prevent potential adverse effects on flying insects and bat populations; and • Lighting designed to switch off or be dimmable where possible.
Hedgehog	Create suitable shelter for hedgehogs and allow their movement across the site	Provision of small gaps (13cm x 13cm) under any garden fences to allow the free movement around the Site. The placement of hedgehog shelters at the base of woody vegetation within green infrastructure would provide summer nesting and over-winter hibernation locations
Invertebrates	Provide further shelter for invertebrates on site	The provision of 'insect hotels' and other invertebrate shelters within the green infrastructure of the project in suitable positions
All groups	Use of native planting scheme where possible	A native planting scheme should be incorporated where possible. This will attract a range of invertebrates on which bats and birds can feed. Where the use of native species is not practical/desirable within the built areas of the development, preference should be given to species which are night- scenting or fruit- bearing trees which will attract invertebrate food for bats and birds.

6.0 CONCLUSIONS

- 6.1 The proposals comprise the construction of six residential dwellings at land adjacent to Swedish Cottage, Leicester Road, Earl Shilton, and an amendment to the approved planning consent of a proposed meeting hall.
- 6.2 Ecological survey identified IEFs present on site or within its Zone of Influence including: Thurlaston Brook Earl Shilton cLWS, Peckleton hedgerows pLWS, Earl Shilton meadows stream and hedges cLWS and Thurlaston Brook hedgerow pLWS, a range of common and widespread generalist birds, GCN and common reptiles.
- 6.3 Assessment has demonstrated that in the absence of mitigation, proposals would lead to **moderate adverse impacts significant on a local scale** for GCN and **minor adverse effects significant at a site level** for nesting birds and reptiles.
- 6.4 A combination of intrinsic mitigation, targeted mitigation, compensation and ecological enhancement detailed within this EcIA has demonstrated that proposals are anticipated to lead to **negligible to minor beneficial effects for all IEFS**, except reptiles which is precautionarily anticipated to lead to **a minor adverse impact at a site scale at an insignificant level**.



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Key

Site Boundary

1km buffer

2km buffer

Local Wildlife Trust (LWS)

LWS (Candidate)

LWS (Potential)

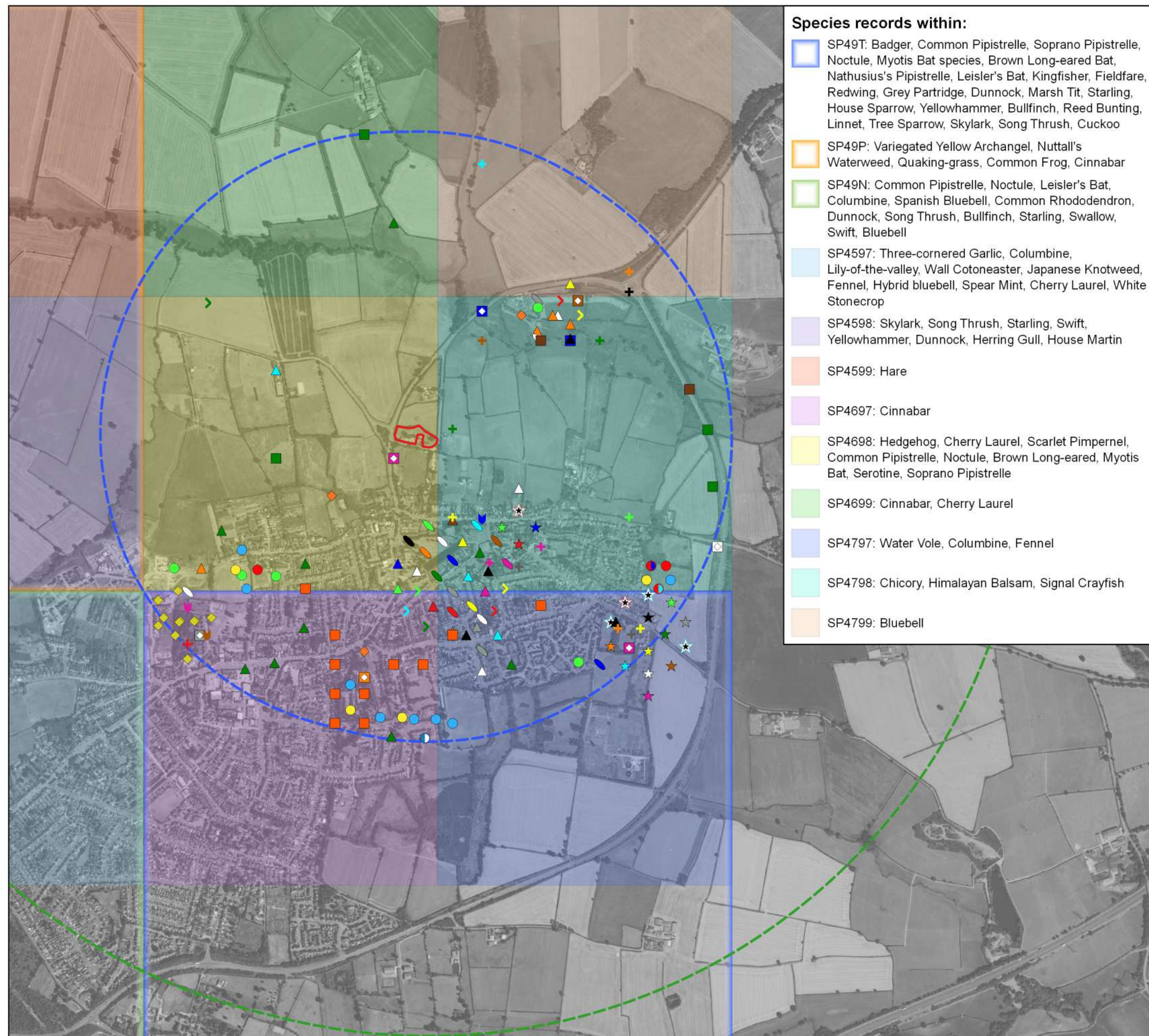
Local Wildlife Sites:

1 - Thurlaston Brook, Earl Shilton

2 - Peckleton hedgerows

3 - Thurlaston Brook hedgerows

4 - Earl Shilton meadows, stream and hedges



Species records within:

- SP49T:** Badger, Common Pipistrelle, Soprano Pipistrelle, Noctule, Myotis Bat species, Brown Long-eared Bat, Nathusius's Pipistrelle, Leisler's Bat, Kingfisher, Fieldfare, Redwing, Grey Partridge, Dunnock, Marsh Tit, Starling, House Sparrow, Yellowhammer, Bullfinch, Reed Bunting, Linnet, Tree Sparrow, Skylark, Song Thrush, Cuckoo
- SP49P:** Variegated Yellow Archangel, Nuttall's Waterweed, Quaking-grass, Common Frog, Cinnabar
- SP49N:** Common Pipistrelle, Noctule, Leisler's Bat, Columbine, Spanish Bluebell, Common Rhododendron, Dunnock, Song Thrush, Bullfinch, Starling, Swallow, Swift, Bluebell
- SP4597:** Three-cornered Garlic, Columbine, Lily-of-the-valley, Wall Cotoneaster, Japanese Knotweed, Fennel, Hybrid bluebell, Spear Mint, Cherry Laurel, White Stonecrop
- SP4598:** Skylark, Song Thrush, Starling, Swift, Yellowhammer, Dunnock, Herring Gull, House Martin
- SP4599:** Hare
- SP4697:** Cinnabar
- SP4698:** Hedgehog, Cherry Laurel, Scarlet Pimpernel, Common Pipistrelle, Noctule, Brown Long-eared, Myotis Bat, Serotine, Soprano Pipistrelle
- SP4699:** Cinnabar, Cherry Laurel
- SP4797:** Water Vole, Columbine, Fennel
- SP4798:** Chicory, Himalayan Balsam, Signal Crayfish
- SP4799:** Bluebell

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Key

- Site Boundary 1km buffer 2km buffer

Bats

- Bat Common Pipistrelle Nyctalus Bat
Brown Long-eared Bat Myotis Bat Pipistrelle Bat
Noctule

Birds

- Barn Owl Indet. Harrier Skylark
Bullfinch Lapwing Song Thrush
Curlew Lesser Redpoll Starling
Dunnock Linnet Swallow
Fieldfare Merlin Swift
Green Sandpiper Nightjar Tree Sparrow
Grey Partridge Peregrine Tundra Swan
Hobby Red Kite Willow Tit
House Martin Redwing Yellowhammer
House Sparrow Reed Bunting

Herpetofauna

- Grass Snake Great Crested Newt

Invasive non-native species

- Canada Goose Least Duckweed Wall Cotoneaster
Himalayan Balsam Muntjac Water Fern
Japanese Rose Variegated Yellow Archangel

Invertebrates

- Blood-vein Dusky Thorn Powdered Quaker
Brindled Beauty Grey Dagger Shoulder-striped Wainscot
Buff Ermine Mottled Rustic Small Square-spot
Cinnabar Mouse Moth White Ermine
Dot Moth Pale Eggar

Mammals

- Hare Hedgehog Otter

Plants

- Bluebell Cherry Laurel Greater Celandine
Bogbean Columbine Knot Grass
Buck's-horn Cornflower Ragged-Robin
Plantain Garden Asparagus



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Key

 **Site Boundary**

 **Buildings**

Habitats

 **Developed land; sealed surface - u1b**

 **Mixed scrub - h3h**

 **Modified grassland - g4**

 **Ponds (non-priority habitat) - 41**

 **Tall forbs - 16**

Individual trees

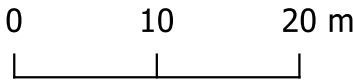
 **Large Urban Tree**

 **Medium Urban Tree**

 **Small Urban Tree**

Hedgerow

 **Line of trees - 33**



client
KC Planning and Development
project
Swedish Cottage, Leicester Road,
Earl Shilton
drawing title
UKHab and Building Plan

scale @ A3
1:530

drawing / figure number

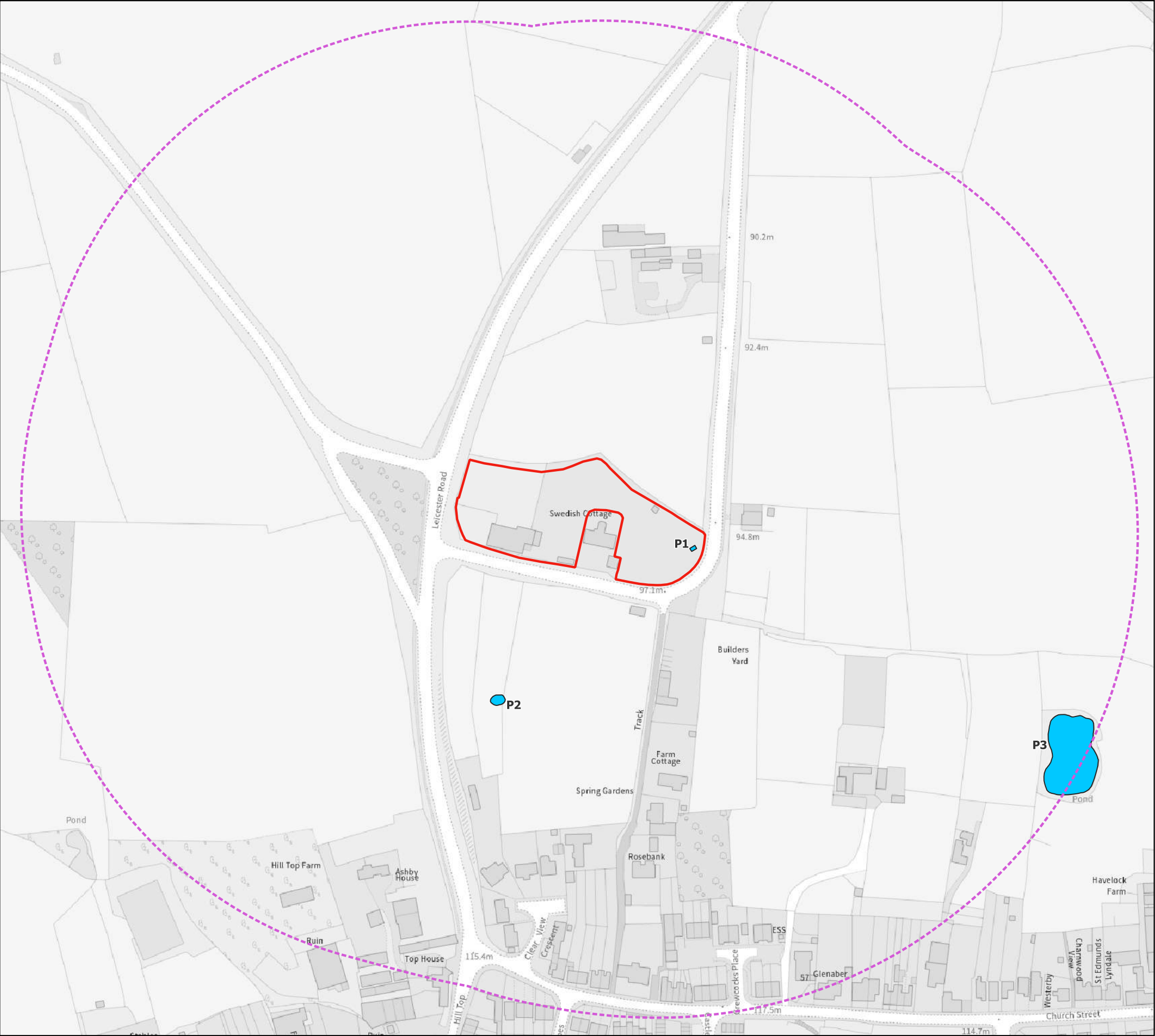
Figure 2

drawn
EOM /
MJF

issue date
19/3/2024

rev

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Key

Site Boundaries

- Current
- Future
- 250m Buffer
- Waterbody

APPENDIX A: RELEVANT LEGISLATION, POLICY AND GUIDANCE

The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019

- 1.1 The Regulations ensure that the habitat and species protection and standards derived from EU law as per “The Habitat Regulations” Amendment will continue to apply after Brexit.

The Conservation of Habitats and Species Regulations (“The Habitats Regulations”) (Amendment) 2017

European Protected Sites

- 1.2 The Habitats Regulations ratifies into UK law the “Habitats Directive” (92/43/EEC) and the “Birds Directive” (79/409/EEC). It places a duty on the Secretary of State to propose a list of sites which are important for species listed in Annex I and II of the Habitats Directive respectively to the European Commission. Once the Commission and EU Member States have agreed that the sites submitted are worthy of designation, they are identified as Sites of Community Importance (SCIs). The EU Member States must then designate these sites as Special Areas of Conservation (SACs) within six years.
- 1.3 The Regulations require the compilation and maintenance of a register of European sites to include SACs as well as Special Protection Areas (SPAs) designated for birds and sites designated as internationally important wetlands under the Ramsar Convention known as “Ramsar Sites”. These three designations form a collective Europe wide network of internationally protected sites known as Natura 2000. All European sites are also designated under UK law as Sites of Special Scientific Interest (SSSIs; please see below).

Habitats Regulation Assessment

- 1.4 There is a requirement under EU law that Member States’ take measures to reach and maintain European Protected Sites’ at Favourable Conservation Status (FCS). An Appropriate Assessment is required for plans or projects that may potentially damage a European Protected Site. This is based on an assessment against a given European Protected Site’s Conservation Objectives. The process is commonly known as a Habitats Regulations Assessment (HRA).
- 1.5 The HRA must be conducted by, or on behalf of, the Competent Authority. The HRA process assesses plans or projects alone or in combination. It involves a four stage approach as follows:
- Stage One: Screening - also known as the Test of Likely Significant Effect (TOLSE). If the Competent Authority cannot screen out a *likely significant effect*, an Appropriate Assessment is required.
 - Stage Two: Appropriate Assessment - the Competent Authority will only agree to plans or projects that will not affect the *integrity* of a European site also known as the “Integrity Test”.
 - Stage Three: Alternative Solutions - assesses any alternative solutions of a potentially damaging plan or project that failed the Integrity Test, and if it is determined there are no alternative solutions, the project cannot be agreed to and it will either need to be changed or refused.

- Stage Four: The final stage may allow a plan or project to proceed if after failing stage three if it is for Imperative Reasons of Overriding Public Interest, and only if suitable compensatory measures are secured.

1.6 Any plan or project that may have a potentially damaging effect on a transient species or the habitat on which it relies (for example bats or birds), that is both a Qualifying Features of a European Protected Site and considered *functionally linked* with a European Protected Site, are required under law to be considered as part of any HRA process.

European Protected Species

1.7 The Habitats Regulations includes a list of animals and plant species taken from the Annex IV of the Habitats Directive that have a natural range which includes any area in Great Britain. These are collectively known as European Protected Species (EPS). The regulations make it an offence to deliberately capture, kill, disturb, take or destroy eggs of, or damage or destroy a breeding or resting place of animals listed in Schedule 2 of the Regulations, and to pick, collect, cut, uproot or destroy wild plants listed in Schedule 5 of the Regulations. All listed EPS are shown in Table 1 below. The Regulations also protect these species alive or dead and parts thereof from various forms of possession and trade.

Table 1: The Habitats Regulations Schedule 2 and Schedule 5 species

Schedule 2 – European Protected Animal Species		Schedule 5 – European Protected Plant Species	
Common name	Scientific name	Common name	Scientific name
Horseshoe bats – all species	<i>Rhinolophidae</i>	Shore dock	<i>Rumex rupestris</i>
Bats – all species	<i>Vespertilionidae</i>	Killarney fern	<i>Trichomanes speciosum</i>
Large blue butterfly	<i>Maculinea arion</i>	Early gentian	<i>Gentianella anglica</i>
Wild cat	<i>Felis silvestris</i>	Lady's-slipper	<i>Cypripedium calceolus</i>
Dolphins, porpoises & whales - all species	<i>Cetacea</i>	Creeping marshwort	<i>Apium repens</i>
Hazel dormouse	<i>Muscardinus avellanarius</i>	Slender naiad	<i>Najas flexilis</i>
Pool frog	<i>Rana lessonae</i>	Fen orchid	<i>Liparis loeselii</i>
Sand lizard	<i>Lacerta agilis</i>	Floating-leaved water plantain	<i>Luronium natans</i>
Fisher's estuarine moth	<i>Gortyna borelii lunata</i>	Yellow marsh saxifrage	<i>Saxifraga hirculus</i>
Great crested newt	<i>Triturus cristatus</i>		
Otter	<i>Lutra lutra</i>		
Lesser Whirlpool Ram's-horn snail	<i>Anisus vorticulus</i>		
Smooth snake	<i>Coronella austriaca</i>		
Sturgeon	<i>Acipenser sturio</i>		

Schedule 2 – European Protected Animal Species		Schedule 5 – European Protected Plant Species	
Natterjack toad	<i>Bufo calamita</i>		
Marine turtles	<i>Caretta caretta</i> <i>Chelonia mydas</i> <i>Lepidochelys kempii</i> <i>Eretmochelys imbricata</i> <i>Dermochelys coriacea</i>		

- 1.8 These actions may be made lawful in certain circumstances through the granting of licences by the appropriate authority (Natural England). Licences must only be granted after the appropriate authority is satisfied that no satisfactory alternatives are available. In most circumstances, licences are only applied for and granted following full planning permission.
- 1.9 In determining whether or not to grant a licence Natural England must apply the requirements of The Conservation of Habitats and Species Regulations 2012 (amendment) and, in particular, the three derogation tests:
- Test 1: A licence can be granted for the purposes of “preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment”.
 - Test 2: The appropriate authority shall not grant a licence unless they are satisfied “that there is no satisfactory alternative”.
 - Test 3: The appropriate authority shall not grant a licence unless they are satisfied “that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

Wildlife and Countryside Act 1981 (as amended)

- 1.10 The Wildlife and Countryside Act 1981 (WCA) (as amended) is the principal legislation providing protection for wildlife in the UK. It prescribes legislation for wild birds, other animals, wild plants and non-native species. In addition, it provides for the designation of Sites of Special Scientific Interest (SSSI) in England.

Wild birds

- 1.11 The WCA as amended by Schedule 12 of the Countryside and Rights of Way Act 2000 makes it an offence (with exception to species listed in Schedule 2) to intentionally or recklessly:
- kill, injure, or take any wild bird;
 - take, damage or destroy the nest of any wild bird while that nest is in use or being built (also [take, damage or destroy the nest of a wild bird included in Schedule ZA1] under the Natural Environment and Rural Communities Act 2006); or
 - take or destroy an egg of any wild bird.
- 1.12 For birds listed on Schedule 1 of the WCA, protection extends to offences relating to the intentional or reckless disturbance of these birds while at their nests or their dependent young.

Other animals

- 1.13 The WCA (as amended) makes it an offence to (subject to exceptions) intentionally or recklessly kill, injure or take wild animals listed on Schedule 5 of the Act. For some species, the protection extends to interference with places used for shelter or protection, or disturbing animals occupying or obstructing access to such places. These species are regarded as “fully protected” and as well as the EPS species listed above include the mammal species water vole *Arvicola terrestris*, pine marten *Martes martes* and red squirrel *Sciurus vulgaris* as well as selected others from a range of species groups including, fish, butterflies, hemipteran bugs, beetles, crickets, dragonflies, moths, spiders, crustaceans, sea-mats, molluscs, Annelid worms and sea anemones (and allies).
- 1.14 There are seven species on Schedule 5 of the Act that not fully protected but are still protected against killing and injuring these include the common reptile species slow worm *Anguis fragilis*, viviparous lizard *Lacerta vivipara*, grass snake *Natrix natrix* and adder *Vipera berus*.
- 1.15 The Act prohibits certain methods of killing, injuring, or taking wild animals, and numerous species are protected against sale only as well as other variations for example Atlantic stream (white-clawed) crayfish *Austropotamobius pallipes* are protected against taking and sale.

Vascular plants, bryophytes, lichens and fungi

- 1.16 With regards to native flora the Act makes it an offence to (subject to exceptions) intentionally or recklessly pick, uproot or destroy any wild plant listed in Schedule 8. Similarly, the Act prevents the sale, offer or expose for sale, or possess (for the purposes of trade), any live or dead wild plant included in Schedule 8, or any part of, or anything derived from, such a plant.

Non-native species

- 1.17 The Act contains measures for preventing the establishment of non-native species which may be detrimental to native wildlife, prohibiting the release of animals and planting of plants listed in Schedule 9 in England and Wales.

Sites of Special Scientific Interest

- 1.18 The Act provides for the notification and confirmation of Sites of Special Scientific Interest (SSSIs). These sites can be identified for their flora, fauna, geological or physiological interest. In England, the power to confirm an SSSI lies with Natural England.
- 1.19 Laws protecting areas designated as SSSIs are described in Sections 28 to 33 of Part 2 of the Wildlife and Countryside Act 1981 (as amended). SSSIs are the principle statutory designation of sites in the UK and offences are enforced through Natural England. Offences include the following:

SSSI owners and occupiers

- carrying out, causing or allowing operations likely to damage an SSSI without Natural England consent.
- failing to keep to a management notice.
- failing to let us know about a change in ownership or occupation of land in an SSSI.

Public bodies

- carrying out or authorising operations likely to damage an SSSI without meeting the requirements to notify Natural England.
- failing to minimise any damage to an SSSI and if there is any damage, failing to restore it to its former state so far as is reasonably practical and possible.

Any person

- intentionally or recklessly damaging, destroying or disturbing any of the habitats or features of an SSSI.
- intentionally or recklessly damaging, destroying, obscuring or taking down a site notice put up on land within an SSSI.
- preventing a Natural England officer lawfully accessing an SSSI.

Protection of Badgers Act 1992

- 1.20 Badgers and their setts are protected under the Protection of Badgers Act 1992. This act is based on the need to protect badgers from persecution by baiting and deliberate harm or injury.

The act makes it an offence to:

- intentionally capture, kill or injure a badger;
- damage, destroy or block access to their setts;
- disturb badgers in setts;
- treat a badger cruelly;
- deliberately send or intentionally allow a dog into a sett; and
- bait or dig for badgers.

A sett is defined as:

“Any structure or place that displays signs indicating current use by a badger”.

Environment Act 2021

- 1.21 Section 147 (3) of the Environment Act came into force 12th February 2024. This requires all developments subject to the Town and Country Planning Act (except those defined as Small Sites) to provide at least 10% biodiversity net gain (BNG), as calculated using the Statutory Biodiversity Metric, with habitat used for net gain to be secured for a minimum of 30 years.
- 1.22 The requirement for Small Sites to achieve a 10% BNG is not planned to come into force until 1st April 2024.

Natural Environmental and Rural Communities (NERC) Act 2006

- 1.23 Section 40 of the NERC Act 2006 imposes a duty on every public authority to conserve biodiversity in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity. Conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat.

- 1.24 Section 41 (S41) of the NERC Act 2006 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 list (including 56 habitats and 943 species) has been drawn up in consultation with Natural England and draws upon the UK BAP List of Priority Species and Habitats. The S41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of the Natural Environment and Rural Communities Act 2006.

National Planning Policy Framework (NPPF) (2021)

- 1.25 The National Planning Policy Framework (NPPF) sets out the Government's planning policy for England. As such, the NPPF must be a material consideration for local authorities when considering planning decisions. The following points highlight those policies/statements which particularly relate to ecology/biodiversity and the planning system.

Policy 15 – Conserving and enhancing the natural environment

170. The planning system should contribute to and enhance the natural and local environment by:

- protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
- minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures

171. Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.

172. Great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to these issues. The conservation and enhancement of wildlife and cultural heritage are also important considerations in these areas, and should be given great weight in National Parks. Where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality. The scale and extent of development within these designated areas should be limited. Planning permission should be refused for major development other than in exceptional circumstances, and where it can be demonstrated that the development is in the public interest. Consideration of such applications should include an assessment of:

- a) the need for the development, including in terms of any national considerations, and the impact of permitting it, or refusing it, upon the local economy;
- b) the cost of, and scope for, developing outside the designated area, or meeting the need for it in some other way; and

c) any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated.

174. 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 incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.

176. The following should be given the same protection as habitats sites:

a) potential Special Protection Areas and possible Special Areas of Conservation;

b) listed or proposed Ramsar sites; and

c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Area of Conservation, and listed or proposed Ramsar sites.

177. The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.

Local Nature Reserves

1.26 Local Nature Reserve (LNR) is a statutory designation made under Section 21 of the National Parks and Access to the Countryside Act 1949, and amended by Schedule 11 of the Natural Environment and Rural Communities Act 2006, by principal local authorities.

1.27 Local authorities have the powers to acquire, declare and manage LNRs. Parish and town councils can declare LNRs providing power is given by the district or county council. LNRs may or may not

have other statutory designations such as SSSI status. LNRs must be controlled by the local authority through ownership, lease or agreement with the owner. The main aim must be to care for the natural features which make the site special. LNRs are of local, but not necessarily national, importance.

- 1.28 LNRs are usually owned by local authorities, with management often passed onto other organisations such as County Wildlife Trusts etc. They often have good public access and facilities. There is no legal necessity to manage an LNR to any set standard but management agreements and plans often exist. Protection of LNRs is usually provided through local planning policy and through local bylaws.

Non-Statutory Protected Local Sites

- 1.29 Non-statutory Designated Sites are sites designated by local authorities which fall outside the statutory criteria for designation. They are policy protected and included in the National Planning Policy Framework (NPPF) as “Local Sites”. Local Planning Authorities should set criteria-based policies against which proposals for developments on or affecting protected wildlife sites should be judged. Non-statutory sites are given various names including County Wildlife Sites (CWS), Sites of Importance for Nature Conservation (SINC) and Local Wildlife Sites (LWS). to this end Ancient Woodland Inventory (AWI) sites are also considered non-statutory sites.

Hedgerows

- 1.30 Hedgerows are designated as Habitats of Principal Importance under the NERC Act 2006. The National Planning Policy Framework (NPPF) emphasises the preservation, restoration and re-creation of priority habitats and ecological networks. Hedgerows are important components of ecological networks linking other important habitats and designated sites.
- 1.31 Hedgerows also receive statutory protection under the Hedgerow Regulations 1997 made under Section 97 of the Environment Act 1995, which came into force in 1997. The regulations introduced new arrangements for local planning authorities in England and Wales to protect important hedgerows in the countryside, by controlling their removal through a system of notification. Important hedgerows are defined by complex assessment criteria, which draw on biodiversity features, historical context and the landscape value of the hedgerow.

Local Biodiversity Action Plan (LBAP)

- 1.32 Local Biodiversity Action Plans (LBAP) identify habitat and species conservation priorities at a local level (typically at the County level), and are usually drawn up by a consortium of local Government organisations and conservation charities.

Birds of Conservation Concern (BoCC)

- 1.33 The Birds of Conservation Concern (BoCC) is jointly prepared by the British Trust for Ornithology (BTO), Joint Nature Conservation Committee (JNCC) and The Royal Society for the Protection of Birds (RSPB).
- 1.34 The report classifies birds according to the extent that they are known to be declining. The classifications are split into groups, Red, Amber and Green, with species classified as Red being those with the greatest declines. The criteria for classifications are presented in *Table 2*.

Table 2: BoCC species classification criteria

Red List Criteria	Amber List Criteria	Green List Criteria
Global Conservation Status - Species listed by BirdLife International as being Globally Threatened using IUCN criteria.	European Conservation status - Categorised as a Species of European Conservation Concern.	All regularly occurring species that do not qualify under any of the red or amber criteria are green listed.
Historical Decline - A severe decline in the UK between 1800 and 1995, without substantial recent recovery.	Historical Decline – Recovery - Red listed for Historical Decline in a previous review but with substantial recent recovery (more than doubled in the last 25 years).	Includes those species listed as recovering from Historical Decline in the last review that have continued to recover and do not qualify under any of the other criteria.
Breeding Population Decline - Severe decline in the UK breeding population size, of more than 50%, over 25 years or the entire period used for assessments since the first BoCC review, starting in 1969 ("longer-term").	Breeding Population Decline - As for red list criteria and, but with moderate decline (by more than 25% but less than 50%).	
Non-breeding Population Decline - Severe decline in the UK non-breeding population size, of more than 50%, over 25 years or the longer-term.	Non-breeding Population Decline - As for red list criteria and, but with moderate decline (by more than 25% but less than 50%).	
Breeding Range Decline - Severe decline in the UK range, of more than 50%, as measured by number of 10 km squares occupied by breeding birds, over 25 years or the longer-term.	Breeding Range Decline - As for red list criteria and, but with moderate decline (by more than 25% but less than 50%).	
	Rarity - UK breeding population of less than 300 pairs, or non-breeding population of less than 900 individuals.	
	Localisation - At least 50% of the UK breeding or non-breeding population found in 10 or fewer sites.	
	International Importance - At least 20% of the European breeding or non-breeding population found in the UK.	

APPENDIX B: DETAILED FAUNAL SURVEY METHODOLOGY

Badgers

- 1.1 The habitats of the Site and other habitats immediately adjacent to the Site boundary (where accessible), were searched for evidence of badger activity. The standard methodology was used, as outlined by Harris, Creswell and Jefferies (1991)¹. This involved a thorough search for evidence indicating the presence of badgers, including:
 - setts, including earth mounds, evidence of bedding and runs between setts;
 - latrines, often located close to setts, at territory boundaries or adjacent to favoured feeding areas;
 - prints and paths or track ways;
 - hairs caught on rough wood or fencing; and
 - other evidence including snuffle holes, feeding and playing areas and scratching posts.
- 1.2 The identification of snuffle holes, scratching posts or feeding signs on their own is not necessarily conclusive evidence of the presence of badgers. A number of such signs may need to be seen in conjunction before they can be said to be conclusive of badger activity.
- 1.3 Where setts are found, their status and level of activity is noted. Sett status is broadly categorised as follows:
 - *Main sett* – usually continuously used with many signs of activity around, a large number of holes and conspicuous spoil mounds.
 - *Annexe sett* – usually located close to a main sett and connected to it by well used paths. Annexes may not be continuously occupied.
 - *Subsidiary sett* – lesser used setts comprising a few holes and without associated well-used paths. Subsidiary setts are not continuously occupied.
 - *Outlier sett* – one or two holes without obvious paths. These are used sporadically.
- 1.4 Level of activity is described as:
 - *Well used* – clear of debris, trampled soil mounds and obviously active, with signs of activity such as presence of prints, dislodged guard hairs around the entrances.
 - *Partially used* – some associated debris or plants at the entrance. Could be used with minimal excavation and usually with signs of activity within the vicinity, for example, badger pathways.
 - *Disused* – partially or completely blocked entrances.

¹ Harris, S., Creswell, P. and Jefferies, D., (1991). (Report) Surveying Badgers. The Mammal. Society, Bristol.

Bats

Ground-Based Assessment of Trees

- 1.5 Trees were assessed for their potential to support roosting bats within the Site. Assessments were undertaken from ground level, with the aid of a torch and binoculars (where appropriate). During the survey Potential Roosting Features (PRF) such as the following were sought (Based on p16, BS 8596:2015²):
- Natural holes (e.g. knot holes) arising from naturally shed branches or branches previously pruned back to a branch collar;
 - Man-made holes (e.g. cavities that have developed from flush cuts or cavities created by branches tearing out from parent stems);
 - Woodpecker holes;
 - Cracks / splits in stems or branches (horizontal and vertical);
 - Partially detached, loose or bark plates;
 - Cankers (caused by localised bark death) in which cavities have developed;
 - Other hollows or cavities, including butt rots;
 - Compression of forks with included bark, forming potential cavities;
 - Crossing stems or branches with suitable roosting space between;
 - Ivy *Hedera helix* stems with diameters in excess of 50mm with suitable roosting space behind (or where roosting space can be seen where a mat of thinner stems has left a gap between the mat and the trunk); and
 - Bat or bird boxes.
- 1.6 Certain factors, such as orientation of the feature, its height from the ground, the direct surroundings and its location in respect to other features, may enhance or reduce the potential value.
- 1.7 Trees were classified into general bat roost potential groups based upon the presence of these features. Table 1 (below) broadly classifies the potential categories as accurately as possible as well as discussing the relevance of the features. This table is based upon Table 6.2 and Chapter 6 in Bat Surveys for Professional Ecologists: Good Practice Guidelines (J., Collins (Bat Conservation Trust), 2023³).

² British Standards Institution, (2015) *BS 8596:2015 Surveying for bats in trees and woodland*. Milton Keynes: BSI

³ Collins, J. (ed.) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (4th edn). The Bat Conservation Trust

Table 1: Classification and Survey Requirements for Bats in Trees

Classification of Tree	Description of Category and Associated Features (based on PRFs listed above)	Likely Further Survey Work / Actions
PRF – I	PRF is only suitable for individual bats or very small numbers of bats either due to size or lack of suitable surrounding habitats.	No further survey required but a precautionary working method statement may be appropriate.
PRF - M	PRF is suitable for multiple bats and may therefore be used by a maternity colony.	Where the tree(s) will likely be affected by development a combination of aerial assessment by roped access bat workers (if appropriate) and / or nocturnal survey during appropriate period (May to August). Following additional assessment, a tree may be upgraded or downgraded based on findings. If roost sites are confirmed and the tree or roost is to be affected by proposals a licence from Natural England will be required. After completion of survey work (where the presence of a bat roost is discounted), a precautionary working method statement may still be appropriate.

Assessment of Buildings

- 1.8 The buildings on site were surveyed internally and externally by a licensed bat worker from FPCR (Natural England license number: 2020-44420-CLS-CLS). External building assessments were undertaken from ground level with the aid of a torch. During the surveys Potential Roosting Features (PRF) for bats including (but not limited to) the following were sought:
- Broken and missing roof tiles, verge tiles, ridge tiles and crevices between hanging tiles;
 - Access points behind soffits, fascia boards and barge boards;
 - Gaps beneath lifted roofing felt and lead flashing;
 - Openings in to roof voids, such as through eaves and gable ends;
 - Loose mortar between bricks, tiles or cracks in rendering;
 - Crevices between windows and lintels;
 - Cracks in mortar or lead flashing;
 - Spaces between downpipes or guttering; and
 - Roof joists and gaps between support beams.
- 1.9 Evidence that potential access points were used by bats was also recorded where found. Such evidence includes staining from urine and/or fur and the presence of bat droppings in and around features. Indicators that potential access points had not recently been used included the presence of heavy cob-webbing and general detritus around these points.
- 1.10 Internal assessments were made of the buildings including roof voids (where present and accessible), using torches and endoscopes when needed; searches were made of all accessible surfaces, walls, floors etc. for evidence of bats, which could include: feeding

remains, concentrated piles or scattered droppings, scratch marks, or staining and live or dead bats.

- 1.11 The buildings were classified as offering negligible, low, moderate or high potential (Table 1) dependent on the features and/or evidence observed, which is based on table 4.1 within the Bat Surveys for Professional Ecologists: Good Practice Guidelines (J., Collins (Bat Conservation Trust), 2023).

Table 1: Bat Roosting Potential Categories for Buildings

Roosting Potential Category	Description of Category and Associated Features (based on Potential Roosting Features listed above)
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter protection, conditions and surrounding habitat.
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter protection, conditions and surrounding habitat, but unlikely to support a roost of high conservation status (based on roost type only, not species status)
Low	A structure with one or more potential roost sites that could be used opportunistically by individual bats. However, these potential roost sites do not provide enough space, shelter protection, appropriate conditions and/or suitable habitat to be used on a regular basis by a large number of bats (for example, not suitable for a maternity or hibernation roost)
Negligible	Negligible habitat features on site likely to be used by roosting bats.

Great Crested Newts

Habitat Suitability Index (HSI)

- 1.12 Waterbodies within the Site were assessed for their suitability for breeding GCN using HSI. This methodology assesses the ponds against ten pre-determined criteria, producing a score which indicates the degree of suitability for occupation by GCNs.
- 1.13 In general, ponds with a higher score are more likely to support GCNs than those with a lower score and there is a positive correlation between HSI scores and ponds with newts recorded. Ten separate attributes are assessed for each pond:
- Geographic location;
 - Pond area;
 - Pond drying;
 - Water quality;

- Shade;
- Presence of water-fowl;
- Presence of fish;
- Number of linked ponds;
- Terrestrial habitat; and
- Macrophytic coverage.

1.14 A score is assigned according to the most appropriate criteria level set within each attribute and a total score calculated of between 0 and 1. Pond suitability is then determined according to the following scale:

Table B.2: Habitat Suitability Index Scores and Pond Suitability

HSI Score	Pond Suitability
<0.5	Poor
0.5 - 0.59	Below average
0.6 – 0.69	Average
0.7 – 0.79	Good
>0.8	Excellent

APPENDIX C: ECOLOGICAL IMPACT ASSESSMENT METHODOLOGY

Assessment Approach

- 1.1 The EcIA has been prepared with reference to the Chartered Institute of Ecology and Environmental Management's (CIEEM) Ecological Impact Assessment (EcIA) Guidelines, published in 2018. Baseline information and potential impacts have been quantified as far as practical to inform the assessment, supported by professional judgement and experience as appropriate. Where uncertainties exist, a precautionary approach has been adopted and a 'worse case' scenario approach assumed for the purposes of assessing impacts and recommending mitigation.
- 1.2 The significance of ecological impacts in relation to a proposal can be considered in relation to the importance of affected ecological features and the predicted magnitude of impact upon them.
- 1.3 The main source of information for this assessment are:
 - Biological records (obtained from the relevant Local Biological Records centre and local interest groups);
 - Online sources of Ecological Data;
 - Review of legislation and land-use policies;
 - Field surveys

Zone of Influence

- 1.4 The CIEEM guidelines require the identification of a 'zone of influence' (Zoi) within which the ecological features that may be affected by the proposed scheme can be identified. This will identify the potential impact of the development not just to the Site but beyond the boundaries of proposed scheme.
- 1.5 The Zoi is determined by the source / type of impact, a potential pathway for that impact and the location and sensitivity of the important ecological feature beyond the boundary. For the majority of impacts identified as part of the proposed scheme, the Zoi is generally considered as the application site and immediately surrounding areas.
- 1.6 However, the Zoi can also vary considerably depending upon the species potentially affected by the proposed scheme. For example, some species may be confined to a specific location whilst others, such as bats and birds are more mobile and can occupy much larger home ranges. The presence of dispersal barriers can also have an effect on the Zoi such as roads or rivers which may either reduce the potential of animals crossing it or could cause a potential means of killing or injury. As such, this could isolate areas of potentially suitable habitat within the proposed scheme due to fragmentation. In each case this is considered in association with the nature and scale of the proposed scheme and informed by best practice guidance and professional judgement.
- 1.7 Specific study areas were identified for the desk study and field surveys to inform the valuation of ecological features and the selection of 'key' ecological features material to the assessment.

Assessment Methodology

- 1.8 The impact assessment for ecology has been carried out using guidance from CIEEM (2018). The impact assessment process involves:
- Identifying and characterising impacts;
 - Incorporating measures to avoid and mitigate (reduce) these impacts;
 - Assessing the significance of any residual effects after mitigation; and
 - Identifying appropriate compensation & enhancement measures to offset significant residual effects.
- 1.9 The starting point for the assessment of impacts is to determine the importance of ecological features and as such, which should be subject to detailed assessment. Ecological features can be important for a variety of reasons, for examples, the quality of designated sites or habitats, habitat / species rarity, or their rate of decline (CIEEM, 2018).

Determining Importance

- 1.10 CIEEM have identified various characteristics that can be used to identify ecological features or features likely to be important in terms of biodiversity. These include:
- Animal or plant species that are rare or uncommon, either internationally, nationally or more locally;
 - Ecosystems and their component parts, which provide the habitats required by the above species, populations and / or assemblages;
 - Endemic species or locally distinct sub-populations of a species;
 - Habitat diversity, connectivity and or / synergistic associations (e.g. networks of hedgerows and areas of species-rich pasture that may provide important feeding habitat for rare species);
 - Habitat diversity, connectivity and or / synergistic associations (e.g. networks of hedgerows and areas of species-rich pasture that may provide important feeding habitat for rare species);
 - Habitat diversity, connectivity and or / synergistic associations (e.g. networks of hedgerows and areas of species-rich pasture that may provide important feeding habitat for rare species);
 - Species on the edge on their range, particularly where their distribution is changing as a result of global trends and climate change;
 - Species-rich assemblages of plants and animals; and
 - Typical faunal assemblages that are characteristic of homogenous habitats.
- 1.11 Once an ecological feature has been identified as being important, guidelines promote the use of characterising this feature with the relevant geographic frame of reference. This allows the scale of significance of effects to be presented in a meaningful way and provides a focus of maintaining a feature at an appropriate scale. The known or potential value of an ecological feature within this assessment will be considered within the following geographical context:

- International;
 - National;
 - Regional;
 - County (Durham) &
 - Local (Hartlepool).
- 1.12 If an ecological feature is not considered to be important, the proposed scheme is not anticipated to have an effect that would be of relevance to the decision maker and these features are not considered further within the assessment. Exceptions to this would be if the species, population or habitat in question was identified as having a high social or economic value or if they are afforded legal protection (e.g. badgers). While the assessment does include protected species that receive statutory protection and are of material consideration at the local level, the presence of such a species does not necessarily infer value in relation to the proposed scheme but only to the level of protection it receives.
- 1.13 As such the value of the proposed scheme for protected species is considered to by the specific ecological feature, considering the level of activity, the level of protection it receives and the overall value of habitat to that species within the Site.
- 1.14 Features with a value of Local or above were considered to represent an 'Important Ecological Feature (IEF). Those features not meeting the criteria for IEF's were classified as having either lower than local level (immediate zone of influence) or negligible ecological importance.
- 1.15 Evaluation of habitats which did not reach this scale of significance were otherwise recognised as being of negligible significance or as providing habitat diversity at a site level but not considered to appreciably enrich the habitat resource at a local level.

Determining Impacts and Effects

- 1.16 The CIEEM guidelines, define an impact as an influence on an ecological feature. The effect is the outcome of the influence on the ecological feature. As part of the EclA it is important to assess whether or not an impact is defined as an effect (negative or positive) on the integrity of a defined site or ecosystem and / or the conservation status of a habitat or species within a given geographical area (CIEEM, 2018).
- 1.17 Impacts should be identified and understood to be able to determine their likely effect (consequence) of that impact in relation to the ecological feature.
- 1.18 As part of the process of determining whether there is likely to be an effect on the status of an ecological feature, the following questions are considered:
- 1.19 Will any site / ecosystem process be removed or changed?
- 1.20 What will be the effect on the nature, extent, structure and function of component habitats?
- 1.21 What will be the effect on the average population size and viability of the component species?
- 1.22 A description of parameters that are considered when assessing the degree and type of change are detailed in Table 3 below.

Table 3. Parameters used to describe effects

Parameter for describing impacts on ecological structure and function	Definition of the parameter
Positive or Negative	Whether the impact has a positive or negative effect
Extent	The area of which the effect occurs
Magnitude	The size or amount of an effect
Duration	The time for which the effect is predicted to last prior to recovery or replacement of the resource or feature
Reversibility	Whether the effect is permanent (i.e. irreversible) or temporary (i.e. reversible)
Timing and Frequency	How often the effect occurs (e.g. repeated noise from piling work) and when it occurs (e.g. vegetation clearance undertaken outside of the bird breeding season).

- 1.23 With reference to the duration of an ecological impact, in addition to other uses, for the purposes of the assessment Table 4, defines the timeframes used within the chapter.

Table 4: Definition of timeframes

Term	Definition within this assessment
Short term	1-5 years
Medium term	6-15 years
Long term	16-60 years

- 1.24 In addition to considering the effect on the ecological feature an assessment of significance of the residual effect (for the type / nature of change), is provided in Table 5, below.

Table 5: Classification of the significance of the Effects

Impact Classification	Explanation
Significant Negative Effect	Likely to create a significant negative effect, including loss, or long-term or irreversible damage on the status of the ecological feature.
Not significant Negative Effect	Likely to create a negative effect without causing long-term or irreversible damage to the status of ecological feature.
Neutral	Effects are either absent or such that no overall net change to the ecological change.
Not Significant Positive Effect	Likely to create a beneficial effect on an ecological feature or providing a new lower value ecological feature without improving its conservation status.
Significant Positive Effect	The activity is likely to create a significant beneficial effect, including long-term enhancement and favourable conditions for an existing ecological feature.

- 1.25 Once an effect is considered to be significant then the scale of effect is assessed on a geographical scale (i.e. international, national, regional, district etc.). For example, the effect may not be significant at a district scale, but significant at a more local scale. It is important to note that effects on features will need to be considered at more than one geographical scale.

Mitigation, Compensation and Enhancement

- 1.26 For the purpose of the EclA, impacts on ecological features are generally assessed without mitigation in place. Although in some situations it is impossible to separate the mitigation as this is embedded into the scheme, in these situations it will be acknowledged and just the residual effects considered.
- 1.27 In line with current CIEEM guidelines, a sequential process, known as the 'mitigation hierarchy' should be adopted on negative ecological impacts and effects. This involves:
- Avoid negative ecological effects;
 - Reduce negative effects that cannot be avoided (mitigate); and
 - Compensate for any remaining significant ecological effects.

APPENDIX D: BOTANICAL SPECIES LIST

Modified Grassland

Species Name	Latin	Q1	Q2	Q3	Q4	DAFOR
Broad-leaved Dock	<i>Rumex obtusifolius</i>		6%		2%	R
Cock's-foot	<i>Dactylis glomerata</i>					R/ LF
Common Bent	<i>Agrostis capillaris</i>	30%	25%		10%	F
Common Couch	<i>Elymus repens</i>					R
Common Mouse-ear	<i>Cerastium fontanum</i>	1%		1%		R
Common Nettle	<i>Urtica dioica</i>					O/ LA
Common Ragwort	<i>Jacobaea vulgaris</i>					R
Creeping Buttercup	<i>Ranunculus repens</i>	3%	1%	3%		O
Creeping Cinquefoil	<i>Potentilla reptans</i>	3%		15%		O
Creeping Thistle	<i>Cirsium arvense</i>					R
Crested Dog's-Tail	<i>Cynosurus cristatus</i>					R
Dandelion	<i>Taraxacum officinale agg.</i>				1%	R
Doves-foot Crane's-bill	<i>Geranium molle</i>					R
False Oat-grass	<i>Arrhenatherum elatius</i>			15%		O
Hedge Mustard	<i>Sisymbrium officinale</i>					R
Meadow Buttercup	<i>Ranunculus acris</i>					R
Moss sp.	<i>Bryophyta sp.</i>	4%		2%		O
Perennial Rye-grass	<i>Lolium perenne</i>		60%	70%	20%	A

Swedish Cottage, Leicester Road, Earl Shilton - Ecological Impact Assessment

Species Name	Latin	Q1	Q2	Q3	Q4	DAFOR
Red Clover	<i>Trifolium pratense</i>			2%		R
Red Fescue	<i>Festuca rubra</i>				50%	LA
Ribwort Plantain	<i>Plantago lanceolata</i>			2%		O
Rough Meadow-grass	<i>Poa trivialis</i>		2%		10%	O
Spear Thistle	<i>Cirsium vulgare</i>					R
White Clover	<i>Trifolium repens</i>					R
Willowherb sp.	<i>Epilobium sp.</i>					R
Yarrow	<i>Achillea millefolium</i>	3%	2%			O/ LF
Yorkshire Fog	<i>Holcus lanatus</i>	60%	5%	8%	20%	A

Tall Forbs

Species Name	Latin	DAFOR
Bramble	<i>Rubus fruticosus agg.</i>	O
Common Nettle	<i>Urtica dioica</i>	D
Creeping Thistle	<i>Cirsium arvense</i>	R
Hedge Mustard	<i>Sisymbrium officinale</i>	O
Rough Meadow-grass	<i>Poa trivialis</i>	R
Spear Thistle	<i>Cirsium vulgare</i>	R

Swedish Cottage, Leicester Road, Earl Shilton - Ecological Impact Assessment

Pond P1

Species Name	Latin	DAFOR
Soft Rush	<i>Juncus effusus.</i>	D
Iris	<i>Iris sp.</i>	R

Scrub

Species Name	Latin	DAFOR
Shrub Layer		
Wild Plum	<i>Prunus domestica</i>	D
Field Layer		
Common Nettle	<i>Urtica dioica</i>	A
Bramble	<i>Rubus fruticosus agg.</i>	R
Spear Thistle	<i>Cirsium vulgare</i>	R
Moss sp.	<i>Bryophyta sp.</i>	F
Cleavers	<i>Galium aparine</i>	O
Common Hogweed	<i>Heracleum sphondylium</i>	R
Wild Arum	<i>Arum maculatum</i>	R
Elder (saplings)	<i>Sambucus nigra</i>	R

APPENDIX E: GREAT CRESTED NEWT HABITAT SUITABILITY INDEX RESULTS

Pond Number	SI -1	SI - 2	SI -3	SI -4	SI -5	SI -6	SI -7	SI -8	SI -9	SI -10	HSI score	Pond Suitability	Predicted Presence
	Geographical Location	Pond Area	Pond Drying	Water Quality	Shade	Fowl	Fish	Ponds	Terrestrial Habitat	Macrophytes			
1	1	0.05	0.5	0.67	1	1	1	0.72	0.67	0.9	0.61	Average	0.55



KC Planning and Development

Swedish Cottage, Leicester Road, Earl Shilton

Appendix F - Biodiversity Net Gain Report

March 2024

FPCR Environment and Design Ltd

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1.0 INTRODUCTION

- 1.1 This report has been prepared by FPCR Environment and Design Ltd on behalf of KC Planning and Development and provides an Ecological Appraisal of land adjacent to Swedish Cottage, Leicester Road, Earl Shilton, Leicestershire (Ordnance Survey Grid Reference SP 4692 9853).
- 1.2 This report has been prepared with reference to the following documents:
- Main Ecological Impact Assessment report (FPCR, Feb 2024).
 - David Granger Planning Proposals Sheet 2 of 4, Drawing No. 23.4266.18 December 2023
- 1.3 The site lies within the administrative area of Hinckley and Bosworth Borough Council and is covered by the Hinckley and Bosworth Local Plan 2006-2026 (adopted December 2009). The Draft Local Plan 2020-2039 (June 2021) was also consulted.

2.0 METHODOLOGY

Baseline Habitat Assessment

- 2.1 An assessment of the baseline habitats was undertaken on the 15th January 2024; the method is as described in the main Ecological Impact Assessment report (FPCR, Feb 2024).

Statutory Biodiversity Metric

- 2.2 DEFRA's published Statutory Biodiversity Metric is an MS Excel spreadsheet that is used to quantify the predicted net-change in biodiversity value ("biodiversity units") of a proposed development site before and after development. It treats the flat "habitats" and linear features "hedgerows" separately, and is based on pre-determined values, along with published written guidance, set by a team of experts. The latest statutory metric update was on the 12th February 2024.
- 2.3 To facilitate this, the site has been mapped and digitised using the Statutory Biodiversity Metric QGIS Template, with the existing habitats identified and areas automatically generated. In accordance with the Statutory Biodiversity Metric User Guide, habitats have been defined under UK Habitat 2.0 Classification. The indicative layout proposals for the site were then uploaded into the QGIS template, mapped and digitised to generate areas for development and proposed open space.
- 2.4 These pre- and post-development areas were then inputted into the Statutory Metric Calculation tool. Pre-development habitats were grouped into their habitat type and condition based on the results of the UKHab and condition assessment surveys. Detailed post-development assessment has not been undertaken, however the areas to be developed have been mapped to enable an understanding of habitat losses and enable recommendations to be made.
- 2.5 The strategic significance of the habitats was also assessed for the pre-development habitats based on the location of the site, its proximity to existing areas of biodiversity interest and its setting within wider habitat corridors.

- 2.6 Full details of the calculation methodology used is provided in the Statutory Biodiversity Metric – User Guide¹.

Limitations

- 2.7 The UKHab habitat map has been reproduced from detailed field notes and informed by aerial imagery, OS mapping and site maps provided by the client. The accuracy of this figure is therefore ultimately guided by the accuracy of these sources and can only be relied upon to a certain degree of resolution.
- 2.8 Natural ecological communities are susceptible to change; at times this change can be rapid as a result of internal and external environmental factors. The biodiversity offsetting calculations are based on ecological assessments of habitats carried out in January 2024; as a result, changes which may affect the conclusions of this report may occur, if a prolonged period of time elapses prior to the commencement of the project.
- 2.9 The baseline habitat survey was undertaken outside the optimal period of April to August when deciduous and annual plants are identifiable.
- 2.10 The aim of biodiversity offsetting is to compensate for significant adverse impacts on biodiversity identified after appropriate avoidance, minimisation and on-site rehabilitation measures have been taken, according to the mitigation hierarchy as required by the NPPF.
- 2.11 No other limitations specific to this report influenced this assessment.

3.0 BASELINE CONDITIONS

Desktop Study

- 3.1 Full details of the desktop study are provided in the Ecological Impact Assessment report (FPCR 2024).

Designated Sites

- 3.2 There are no statutory or non-statutory designated sites within the relevant zones of influence of the site.
- 3.3 Four other non-designated sites were located within 1km of the application site boundary. These comprised two candidate LWS and two potential LWS, the details of which are provided in Table 2 below. According to Leicester, Leicestershire and Rutland Local Wildlife Site criteria²:
- Candidate Local Wildlife Sites (cLWS) are defined as sites that have not been through the formal notification process as an LWS, but which are known through survey data to meet the LWS criteria; and
 - Potential Local Wildlife Sites (pLWS) are defined as sites that have not been through the formal notification process as an LWS, but are likely to meet the LWS criteria, although further survey is required to confirm this.

¹ DEFRA, Statutory biodiversity metric: draft user guide (2024) Available at:

<https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides>

² Leicester, Leicestershire & Rutland Local Wildlife Sites Panel. (2011). *Guidelines for the selection of Local Wildlife Sites (previously known as Sites of Importance for Nature Conservation or SINC)s in Leicester, Leicestershire and Rutland – Revised 2011*. [Online]. Available at: https://www.leicestershire.gov.uk/sites/default/files/field/pdf/2016/8/22/Guidelines_LWS.pdf [Accessed 08/02/2024].

Table 2: Candidate/ Potential Local Wildlife Sites Located within the Search Area

Site Name	Designation	Distance from Site	Description
Thurlaston Brook, Earl Shilton	cLWS	380m northeast	Brook with a water crowfoot and meanders
Peckleton, hedgerows	pLWS	700m north	Two species-rich hedgerows, with total species recorded 8 and 11. Not fully surveyed.
Earl Shilton meadows, stream and hedges	cLWS	870m south	Series of seven species-rich meadows, three of which meet LWS criteria. Also present are a stream with water voles, two veteran ash trees and two species-rich hedges. A pond is present with GCN recorded in 2016 but not present 2021.
Thurlaston Brook hedgerow	pLWS	950m west	Hedgerow

Strategic Significance

- 3.4 The Site consists of developed land (communal, residential building and carpark) and horse pasture with a small area of scrub, a pond (non-priority), some scattered trees and a line of non-native trees. These habitats represent no intrinsic strategic significance.
- 3.5 The Site is not adjacent to or functionally connected to any of the potential/ candidate local wildlife sites and as such the Site is considered as being of low strategic significance and is classified within the metric as “Area/compensation not in local strategy/ no local strategy”.

Habitats On-Site

Ecological Survey January 2024

- 3.6 Baseline habitats are as described in the main EcIA report (FPCR, 2024) and are illustrated in Figure 1. Baseline conditions and distinctiveness are displayed in Figure 2 and condition assessments are included at the end of this report.

Baseline Units

- 3.7 Table 2 summarises the units currently at the Site.

Table 2: Statutory Biodiversity Metric Baseline Headline Results

Baseline	Habitat Units	3.72
	Hedgerow Units	0.09

4.0 PROPOSED DESIGN

- 4.1 Habitat proposals have been informed by the Site Plan (Drawing no. 23_4266_18 Site Plan).
- 4.2 The Layout shows an area of 6 residential properties with vegetated gardens, access roads and small areas of public green space. The proposals also include amendments to a building on site with approved full planning permission to be converted into a meeting hall. For the purposes of this assessment, all buildings have been marked as being created as developed land, sealed surface and all access roads, parking spaces and pavements have been allocated as linear built features.

Retained Habitats

- 4.3 Habitat retention is illustrated in Figure 3. All habitats and trees will be lost under current proposals.

Habitat Creation

- 4.4 Post-development habitats are shown in Figure 4. Habitat creation proposals include the creation of habitats suited to an urban location, including modified grassland, vegetated gardens, urban trees and introduced shrub. Proposed habitat conditions and distinctiveness are illustrated in Figure 5.
- 4.5 Public grassland areas will be created and primarily managed for amenity value, however opportunities to increase its biodiversity value will be implemented, with a less intensive mowing regime where possible. These areas will be sown with a species rich seed mix to promote diversity, but it is expected that the proximity to roads and the possible presence of domestic pets will reduce the condition of these areas somewhat and only moderate condition modified grassland is targeted.
- 4.6 Vegetated gardens will be provided within the development and are expected to provide a minimal contribution to the site biodiversity value. Future residents' management of the gardens will vary, with some potentially being paved out although others may be planted with trees or have ponds added, and on average the expected biodiversity gain will be small.
- 4.7 Further value to the site will be provided through the hedgerow and urban tree planting spread around the developed public areas. This is of particular value to birds and bats, increasing connectivity, foraging and nesting opportunities for them.
- 4.8 The remaining areas of public land have been allocated as introduced shrub, given the lack of a detailed landscape plan. While primarily providing ornamental value, flowering species can help support insect populations.

Biodiversity Units

- 4.9 The biodiversity units for each habitat on the Site have been calculated and are presented in Table 3, along with a description of the management recommendations which will be employed to achieve the target conditions for each habitat type.

Table 3: Summary of Proposed Habitat Management

Habitat (Proposed Site Plan)	Habitat (UKHab Type)	Targets for Creation/Management	Area / Length	Target Condition	Distinctiveness	Biodiversity Units
Proposed trees	Urban tree	55 small standard trees will be planted throughout the modified grassland areas and some small public areas.	0.2239ha	Moderate	Medium	0.68
Amenity grass areas	Modified grassland	Areas of modified grassland will be created throughout the site. A diverse seed mix suitable for roadside amenity use will be used and the number of species per metre will be maximised.	0.0649ha	Moderate	Low	0.23
Residential gardens	Vegetated Garden	The areas will be outside of communal management and assumed to would be managed by residents primarily for their amenity value. These areas will include vegetated gardens and ornamental planting within residential development plots.	0.2252ha	Condition Assessment N/A	Low	0.43
Proposed planting	Introduced shrub	Introduced shrub will be added throughout for ornamental value.	0.0375ha	Condition Assessment N/A	Low	0.07
Hedge planting	Native Hedgerow	A hedgerow will be planted using native species. It should be managed to achieve moderate condition with a height and width of at least 1.5m, a continuous canopy or hedge base and 1m of undisturbed ground vegetation either side of the hedgerow. Pruning each year should avoid the breeding bird season (March-July)	0.054km	Moderate	Low	0.18

5.0 BIODIVERSITY NET GAIN (BNG) METRIC

- 5.1 The habitat retention, enhancement, and creation proposals detailed within this report have all been inputted into the Statutory Biodiversity Metric. Table 4 provides a summary of the headline results of the Statutory Biodiversity Metric assessment completed for the proposals.

Table 4: Statutory Biodiversity Metric Headline Results

Baseline	Habitat Units	3.72
	Hedgerow Units	0.09
Post-Intervention	Habitat Units	1.42
	Hedgerow Units	0.18
Total Net Unit Change	Habitat Units	-2.30
	Hedgerow Units	+0.09
Total Net Percentage Change	Habitat Units	-61.89%
	Hedgerow Units	+105.40%

Please note there may be minor discrepancies (rounding errors) between the columns and the totals, however, the numbers duplicate those presented within the matrix calculator.

6.0 CONCLUSION

This assessment has aimed to provide realistic and achievable goals for biodiversity value given the space available in the proposals. The calculation of Biodiversity Net Gain, using DEFRA's Statutory Biodiversity Metric, has then been used to inform the habitat creation proposals for the scheme. Despite this, the loss of all habitats on site results in a net loss of biodiversity. To provide biodiversity net gain, off-site biodiversity units will need to be acquired. The off-site units should meet the trading rules as required in the Statutory Metric calculations. Currently, off-site land under the ownership of the client is proposed to be used to offset the loss and achieve a net gain in biodiversity units.

7.0 CONDITION ASSESSMENTS

Modified Grassland

Condition Criteria	
A- There are 6-8 vascular plant species per m² 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 m² (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.	Pass
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.	Pass
C- Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble <i>Rubus fruticosus</i> agg. may be present). Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Pass
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.	Pass
E- Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens)².	Fail
F- Cover of bracken <i>Pteridium aquilinum</i> is less than 20%.	Pass
G- There is an absence of invasive non-native plant species³ (as listed on Schedule 9 of WCA⁴).	Pass
Total Fails	1
Condition	Good

Mixed Scrub

Condition Criteria	
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 species². - No single species comprises more than 75% of the cover (except hazel <i>Corylus avellana</i>, common juniper <i>Juniperus communis</i>, sea buckthorn <i>Hippophae rhamnoides</i> or box <i>Buxus sempervirens</i>, which can be up to 100% cover).	Fail
B- Seedlings, saplings, young shrubs and mature (or ancient or veteran ³) shrubs are all present.	Fail
C- There is an absence of invasive non-native plant species ⁴ (as listed on Schedule 9 of WCA ⁵) and species indicative of sub-optimal condition ⁶ make up less than 5% of ground cover.	Pass
D- The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.	Pass
E- There are clearings, glades or rides present within the scrub, providing sheltered edges.	Fail
Total Fails	3
Condition	Poor

Pond P1

Core Criteria - applicable to all ponds (woodland1 and non-woodland):	
A- The pond is of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution. Turbidity is acceptable if the pond is grazed by livestock.	Pass
B- There is semi-natural habitat (moderate distinctiveness or above) completely surrounding the pond, for at least 10 m from the pond edge for its entire perimeter.	Fail
C- Less than 10% of the water surface is covered with duckweed <i>Lemna</i> spp. or filamentous algae.	Pass
D- The pond is not artificially connected to other waterbodies, e.g. agricultural ditches or artificial pipework.	Pass

Core Criteria - applicable to all ponds (woodland1 and non-woodland):	
E- Pond water levels can fluctuate naturally throughout the year. No obvious artificial dams ² , pumps or pipework.	Pass
F- There is an absence of listed non-native plant and animal species ³ .	Pass
G- The pond is not artificially stocked with fish. If the pond naturally contains fish, it is a native fish assemblage at low densities.	Pass
Additional Criteria - must be assessed for all non-woodland ponds:	
H- Emergent, submerged or floating plants (excluding duckweed) ⁴ cover at least 50% of the pond area which is less than 3 m deep.	Pass
I- The pond surface is no more than 50% shaded by adjacent trees and scrub.	Pass
Total Fails	1
Condition	Moderate

Tall Forbs

Condition Criteria	
Core Criteria - must be assessed for all urban habitat types:	
A- Vegetation structure is varied, providing opportunities for vertebrates and invertebrates to live, eat and breed. A single structural habitat component or vegetation type does not account for more than 80% of the total habitat area.	Fail
B- The habitat parcel contains different plant species that are beneficial for wildlife, for example flowering species providing nectar sources for a range of invertebrates at different times of year.	Fail
C- Invasive non-native plant species (listed on Schedule 9 of WCA ¹) and others which are to the detriment of native wildlife (using professional judgement) ² cover less than 5% of the total vegetated area ³ . Note - to achieve Good condition, this criterion must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).	Pass

Condition Criteria	
Total Fails	2
Condition	Poor

Individual Trees

Condition Criteria	Individual trees Reference			
	T1	T2	T3	T4
A- The tree is a native species (or at least 70% within the block are native species).	Pass	Pass	Pass	Fail
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).	Pass	Pass	Pass	Pass
C- The tree is mature (or more than 50% within the block are mature).	Fail	Pass	Pass	Pass
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.	Pass	Pass	Pass	Pass
E- Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	Fail	Fail	Pass	Fail
F- More than 20% of the tree canopy area is oversailing vegetation beneath.	Pass	Pass	Pass	Pass
Total Fails	2	1	0	2
Condition	Moderate	Good	Good	Moderate

Line of Trees

Condition Criteria	
A-At least 70% of trees are native species.	Fail
B- Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide.	Pass
C- One or more trees has veteran features and or natural ecological niches for vertebrates and invertebrates, such as presence of standing and attached deadwood, cavities, ivy or loose bark.	Fail
D- There is an undisturbed naturally-vegetated strip of at least 6 m on both sides to protect the line of trees from farming and other human activities (excluding grazing). Where veteran trees are present, root protection areas should follow standing advice ² .	Pass
E- At least 95% of the trees are in a healthy condition (deadwood or veteran features valuable for wildlife are excluded from this). 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.	Pass
Total Fails	2
Condition	Moderate



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Key

 Red Line Boundary

Baseline Habitats

 Developed land; sealed surface

 Mixed scrub

 Modified grassland

 Ponds (non-priority habitat)

 Tall forbs

Baseline Hedgerows

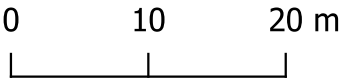
 Line of trees

Baseline Individual Trees

 Existing Large Urban Tree

 Existing Medium Urban Tree

 Existing Small Urban Tree



client
KC Planning and Development
project
Swedish Cottagem Leicester Road,
Earl Shilton
drawing title
BASELINE HABITATS

scale @ A3

1:550

drawn

EOM /

MJF

issue date

19/3/2024

drawing / figure number

Figure 1



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Key

 **Red Line Boundary**

Baseline Habitat Condition

 **Good**

 **Moderate**

 **Poor**

 **N/A - Other**

Baseline Habitat Distinctiveness

 **Medium**

 **Low**

 **V.Low**

Baseline Hedgerow Condition

 **Moderate**

Baseline Hedgerow Distinctiveness

 **Low**

Baseline Individual Tree Condition

 **Moderate**

 **Good**

Baseline Individual Tree Distinctiveness

 **Medium**



client
KC Planning and Development
project
Swedish Cottage, Leicester Road,
Earl Shilton

drawing title
BASELINE HABITAT CONDITION /
DISTINCTIVENESS

scale @ A3

1:550

drawing / figure number

Figure 2

drawn

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19/3/2024



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Key

 Red Line Boundary

Retained Habitats

 Retained

 Lost

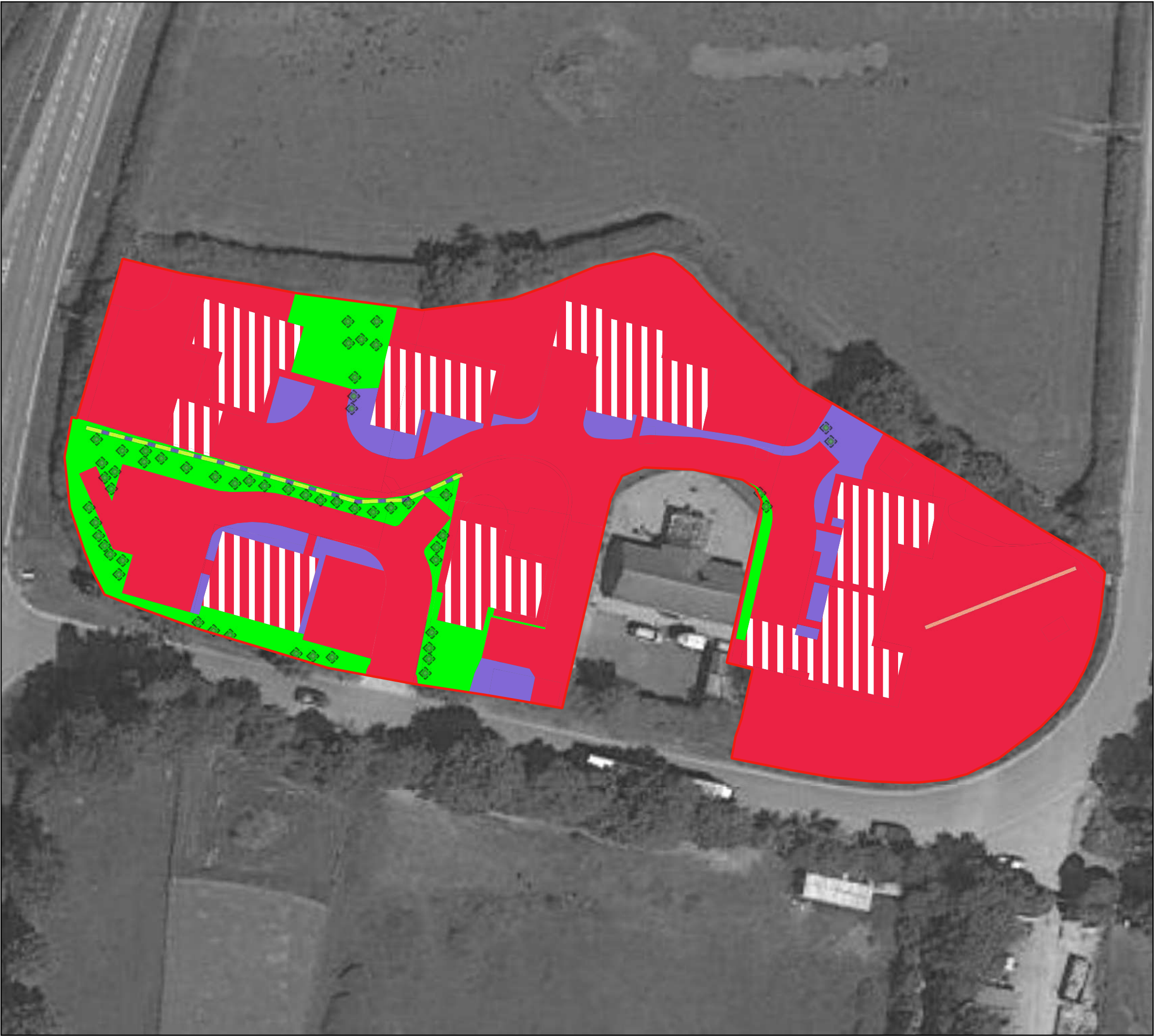
Retained Hedgerows

 Lost

Retained Individual Trees

 Proposed Lost





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Key

 Red Line Boundary

Proposed Habitats

 Built linear features

 Developed land; sealed surface

 Introduced shrub

 Modified grassland

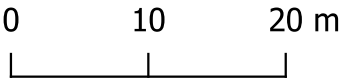
 Vegetated garden

Proposed Hedgerows

 Native hedgerow

Proposed Individual Trees

 Proposed Small Urban Tree





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KC Planning and Development

project
Swedish Cottage, Leicester Road,
Earl Shilton

drawing title
PROPOSED HABITATS

scale @ A3
1:550

drawn
EOM /
MJF

issue date
19/3/2024



Figure 4



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Key

Red Line Boundary

Proposed Habitat Condition

Moderate

N/A - Other

Condition Assessment N/A

Proposed Habitat Distinctiveness

Low

V.Low

Proposed Hedgerow Condition

Moderate

Proposed Hedgerow Distinctiveness

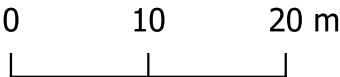
Low

Proposed Individual Tree Distinctiveness

Medium

Proposed Individual Tree Condition

Moderate





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Figure 5