

Luffenhall, Stevenage

Preliminary Ecological Appraisal and
Preliminary Roost Assessment

Report for Karim Kingsley

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Executive Summary

Hawthorn Ecology was commissioned by Karim Kingsley in January 2026 to carry out a Preliminary Ecological Appraisal (PEA), comprising a habitat survey, protected species assessment and ecological evaluation, and Preliminary Roost Assessment (PRA) of land in Luffenhall, Stevenage (henceforth referred to as 'the site'). The proposals include the demolition of a dilapidated chicken shed and construction of a residential property in a similar footprint, with associated garden and hardstanding access track. The main findings are as follows:

- The site comprised a dilapidated chicken shed and stables/feed store, modified grassland with trees, scrub, and hardstanding access track.
- **Protected Sites** – The site is not subject to any statutory or non-statutory nature conservation designations. No internationally important sites are located within a 15km radius of the proposed development and no nationally designated sites are located within a 2km radius of the proposed development. Therefore, protected sites are unlikely to be impacted by the proposed works.
- **Habitats/Plants** – No Habitats of Principal Importance or plant species of concern are located on or adjacent to the site. It is considered unlikely that the Habitats of Principal Importance in the wider landscape will be impacted by the proposed works due to the small scale of the development.
- **Roosting Bats** – The buildings on site were subject to a Preliminary Roost Assessment. No potential roosting features were recorded on the buildings and they were considered to have negligible suitability for roosting bats. Therefore, no further surveys are required but a precautionary approach to demolition of the chicken shed should be adopted, as detailed in Section 4 of this report.
- **Foraging/Commuting Bats** – The grassland, trees and scrub had the potential for foraging/commuting bats. However, the majority of these habitats will not be impacted by the proposed works. Therefore, it is unlikely that foraging/commuting bats will be significantly impacted by the works and no further surveys are required. However, suitable lighting and native species planting should be considered on site.
- **Breeding Birds** – The buildings, trees and scrub on site had the potential to support nesting birds. The majority of habitats will not be impacted by the works but any works to the buildings and any vegetation clearance should take place outside nesting bird season that runs from February to August. If this is not possible then a nesting bird check should be undertaken within 24 hours of works commencing with any nests identified left *in situ* until the chicks have fledged. Nesting opportunities for birds must be incorporated into the proposed development to compensate for the loss of nesting opportunities.
- **Great Crested Newts** – Two waterbodies are present within 250m of the site. The terrestrial habitats on site were suitable for this species but it is unlikely that great crested newts will be impacted by the works due to the small area of vegetation clearance required to facilitate the

proposed development. Therefore, it is unlikely that great crested newts will be impacted by works and no further surveys are required but a precautionary approach to site clearance should be undertaken, as detailed in Section 4 of this report.

- **Reptiles** – The grassland and scrub were suitable for reptiles. Due to the limited area of impact, further surveys were not considered necessary. However, a precautionary approach to works should be adopted, as detailed in Section 4 of this report.
- **Badgers** – No evidence of badger was recorded on or adjacent to the site. Therefore, it is unlikely that this species will be impacted by works and no further surveys are necessary.

Recommendations to enhance the importance of the site for biodiversity in accordance with the Environment Act 2021 and national and local planning policies have been provided in Section 4 of this report.

1 Introduction

BACKGROUND TO COMMISSION

- 1.1 Hawthorn Ecology was commissioned by Karim Kingsley in January 2026 to carry out a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) of land in Luffenhall, Stevenage. The appraisal was carried out to provide ecological information to inform a planning application for the demolition of a dilapidated chicken shed and construction of a residential property in a similar footprint, with associated garden and hardstanding access track. This PEA considers land within the site boundary (henceforth referred to as 'the site').

SCOPE OF THE REPORT

- 1.2 The aim of this appraisal is to provide baseline ecological information about the site. This will be used to identify any potential ecological constraints associated with the proposed development and/or to identify the need for additional survey work to further evaluate any impact that may risk contravention of legislation or policy relating to protected species and nature conservation. Where possible, this report outlines any avoidance, mitigation, compensation and enhancement measures as may be required to ensure compliance with legislation and policy.
- 1.3 This assessment has been completed in line with the established mitigation hierarchy (as set out in BS42020:2013 and CIEEM, 2019), whereby impacts are first avoided, then mitigated or reduced and, as a last resort, compensated for. Consideration has been made to existing habitats that will be retained and protected as part of the design process, with compensatory habitats proposed where losses are unavoidable.
- 1.4 This report also provides an assessment of the likelihood that the site supports roosting bats and outlines any requirement for further survey. It also provides an assessment of the value of the site for foraging and/or commuting bats. Where possible, it also outlines any avoidance, mitigation, compensation and enhancement measures as may be required to ensure compliance with legislation and policy.
- 1.5 The survey, assessment and report were conducted and written by Rosie McLaughlin BSc (Hons) MSc MCIEEM, an ecologist with over 12 years' experience who is trained and competent in carrying out habitat surveys, protected species assessment, and BNG assessments.

SITE CONTEXT AND STATUS

- 1.6 The proposed development site is approximately 0.26 hectares (ha) in size and is centred on Ordnance Survey National Grid reference TL 29459 29004 and is located in the hamlet of

Luffenhall in Hertfordshire. The area immediately surrounding the site comprises residential properties and gardens and pasture. The location of site is shown in Appendix 1, Figure 1 and extent of site boundary is shown in Appendix 1, Figure 2.

- 1.7 The site comprised a dilapidated chicken shed and stables/feed store, modified grassland with trees, scrub, and hardstanding access track.

DEVELOPMENT PROPOSALS

- 1.8 Proposals include the demolition of the dilapidated chicken shed and construction of residential property in a similar footprint. A new hardstanding access track will be constructed and the grassland will become vegetated garden. A low number of small trees will be lost to facilitate the proposed development.

RELEVANT LEGISLATION AND PLANNING POLICY

- 1.9 The key pieces of national nature conservation legislation relevant to this appraisal are detailed in Appendix 3.

2 Methodology

DESK STUDY

2.1 The following data sources were reviewed to provide information on the location of statutory or non-statutory designated sites, protected species and Species and Habitats of Principal Importance within a 2km radius of the Site, with the exception of international wildlife sites which have been identified within a 15km radius:

- Herts Environmental Records Centre, the local Biological Records Centre;
- MAGIC (<http://www.magic.gov.uk/>) - the Government's on-line mapping service; and
- Ordnance Survey mapping and publicly available aerial photography.

HABITAT SURVEY

2.2 A habitat survey of the site was carried out on the 17th February 2026 in weather conditions of 4°C, 2/12 Beaufort scale wind, 1/8 okta cloud cover, and no rain. It covered the entire site including boundary features. Habitats were described and mapped following UK Habitat Classifications (UKHab Ltd, 2023) and marked on a paper base map and subsequently digitised using QGIS software. Habitats were also assessed against descriptions of Habitat of Principal Importance as set out by the JNCC (BRIG, 2008) where appropriate.

2.3 Records for dominant and notable plants are provided, as are incidental records of birds and other fauna noted during the course of the habitat survey.

2.4 Target notes are used to provide information on specific features of ecological interest (e.g. a badger sett) or habitat features that were too small to be mapped.

PROTECTED AND INVASIVE SPECIES ASSESSMENT

2.5 The suitability of the site for protected species was assessed on the basis of relevant desk study records from the last ten years, combined with field observations from the habitat survey. The likelihood of the habitat(s) supporting protected and/or notable species was ranked on a scale from 'negligible' to 'present' as described below:

- **Present** – presence confirmed by survey or desk study.
- **High** – habitats provide the relevant requirements for the species/group with good connectivity to high quality habitat in the surrounding area. The desk study confirms presence in the local area.

- **Moderate** – habitats provide some of the relevant requirements for the species/group. Some factors that may reduce likelihood include limited connectivity to surrounding area, small area of suitable habitat, disturbance. The site is within the known range of the species/group but it has not necessarily been recorded within the desk study.
- **Low** – habitats are of relatively poor quality for the species/group, with few or no records within the desk study. However, the site is within the known range of the species/group and therefore cannot be discounted.
- **Negligible** – no suitable habitat for the species/species group, or very poor quality. No records for the species and surrounding habitat unlikely to support the species and/or separated from the site by significant barriers to dispersal.

2.6 The assessment of habitat suitability for protected or notable species was based on professional judgement drawing on experience of carrying out surveys of a large number of urban and rural sites and best practice survey guidance.

2.7 The findings of this assessment help establish the need for protected species surveys.

PRELIMINARY ROOST ASSESSMENT

2.8 The PRA consisted of an inspection of all features/surfaces of the buildings on site. The survey and assessment were undertaken by Rosie McLaughlin BSc (Hons) MSc MCIEEM, an experienced ecologist with over 12 years' commercial bat survey experience. Rosie possesses a Natural England Level 3/4 Class Licence for bats (licence number 2025-84808-CL1920-BAT).

2.9 The aim of the surveys outlined below is to establish the suitability of the buildings for bat roosts. The suitability of structures to support roosting bats, ranging from negligible to the presence of a confirmed roost, is assessed using the findings of the survey and the desk study. The following criteria were used to determine the suitability of the buildings for roosting bats (taken from Collins, 2023):

- **Negligible** – No obvious habitat features likely to be used by roosting bats.
- **Low** – A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).

- **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 (with respect to roost type only).
 - **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.
 - **Confirmed roost** – Evidence indicates a building or other structure is used by bats, for example:
 - bats seen roosting or observed flying from a roost or freely in the habitat;
 - droppings, carcasses and feeding remains indicative of a roost; and
 - bats heard ‘chattering’ inside on a warm day or at dusk.
- 2.10 The gathered information has been used to inform whether further survey is required in the form of dusk emergence and/or dawn re-entry surveys to fully understand how bats are using the site and the potential impacts of the proposals on bats, or whether an assessment can be made on the basis of the building inspection alone.
- 2.11 The PRA was carried out on 17th February 2026 in weather conditions of 4°C, 2/12 Beaufort scale wind, 1/8 okta cloud cover, and no rain.
- 2.12 The survey comprised an inspection of the buildings on site, involving a detailed search of all accessible architectural features for bat droppings, urine staining, scratch marks, staining around suitable crevices and feeding remains. Windowpanes and other external surfaces were checked for droppings or other secondary evidence. This included external features, such as soffits and fascias, roof lining, brickwork and window casements. Any features that could potentially provide access into internal areas (such as cavity walls) were noted.
- 2.13 The survey methodology followed best practice guidelines (Collins, 2023; Reason and Wray, 2023). Equipment used during the building inspection included close-focusing binoculars, a hand-held LED torch and a high-powered torch.
- 2.14 Finally, all buildings/structures were inspected for evidence of/potential for breeding and/or roosting birds.

DATA VALIDITY AND LIMITATIONS

- 2.15 A Preliminary Ecological Appraisal is only able to act as a 'snapshot' to record flora and fauna that is present at the time of survey. It is therefore possible that some species may not have been present during the survey but may be evident at other times of the year. For this reason, habitats are assessed for their potential to support some species, even when no direct evidence has been found.
- 2.16 The habitat survey does not constitute a full botanical survey or provide accurate mapping of invasive plant species. A full botanical list was not considered necessary for the site, due to the limited habitats. The relevant data was obtained to determine whether the habitats were of Principal Importance or had the potential to support protected species.
- 2.17 Where records within the desk study were provided to only four/six figure grid references, the precise location of the record could not be determined. Therefore, distances from the site are approximate and may vary in practice.
- 2.18 Ecological survey data are typically valid for 12-18 months (CIEEM, 2019).

3 Results

DESIGNATED SITES

Statutory designated nature conservation sites

- 3.1 The site is not subject to any statutory nature conservation designations. No internationally important sites are located within a 15km radius of the proposed development. No nationally designated sites are located within a 2km radius of the proposed development.

Non-statutory designated nature conservation sites

- 3.2 There are 16 non-statutory sites within 2km of the Site, all Local Wildlife Sites (LWS). Those relevant to this assessment are summarised in Table 3.1.

Table 3.1: Non-statutory Designated Sites

Site Name	Distance from Site	Qualifying features/Description
Cromer Hall Meadows	0.4km	Two fields supporting old neutral/calcareous grassland with no signs of improvement evident.
Hickman's Hill Green Lane	0.7km	A long green lane with ancient hedges on either side with trees, including some planted small-leaved lime <i>Tilia cordata</i> .
Lolleywood Green Lane	0.7km	Green lane with a gappy ancient hedge supporting a moderate diversity of woody species.
Sloggar's Wood	1.2km	Ancient semi-natural pedunculate oak <i>Quercus robur</i> / hornbeam <i>Carpinus betulus</i> woodland with coppiced hornbeam and ash <i>Fraxinus excelsior</i> dominant.
Hicks Grove	1.3km	Ancient semi-natural coppiced woodland with a few standards.
Markham's Wood	1.5km	Part ancient semi-natural broadleaved woodland with areas of broadleaved plantation.
Back Lane, N. of Wood End	1.6km	Ancient green lane, which to the north-west is quite open with a hard track and verges of rough neutral grassland bordered by low cut hedges, and to the south-east becomes wooded and supports a range of woody species.
Halls Green Grassland	1.6km	Small area of predominantly old, neutral pasture with a variety of habitats and a good diversity of flora for its size.
Rydals Wood	1.7km	Ancient semi-natural woodland of ash/field maple <i>Acer campestre</i> woodland with pedunculate oak standards and hazel <i>Corylus avellana</i> coppice.

Howell's Wood	1.7km	Ancient coppiced hornbeam woodland with coppice and standards of ash plus occasional wild cherry <i>Prunus avium</i> and some coppiced elm <i>Ulmus sp.</i> in the north-west corner.
Munches Wood	1.8km	Ancient semi-natural woodland mainly of hornbeam coppice with some pedunculate oak and ash standards.
Cottered Road Verge	1.8km	Grassland along the verges has red fescue <i>Festuca rubra</i> , false oat-grass <i>Arrhenatherum elatius</i> and cocksfoot <i>Dactylis glomerata</i> , a large variety of herbs include black medick <i>Medicago lupulina</i> , tall melilot <i>Melilotus altissimus</i> , chalk knapweed <i>Centaurea debeauxii</i> , greater knapweed <i>Centaurea scabiosa</i> , field scabious <i>Knautia arvensis</i> , ox-eye daisy <i>Leucanthemum vulgare</i> , the most species-rich area is the south facing cutting on the north side of the road, where these herbs form the major component of the sward together with agrimony <i>Agrimonia eupatoria</i> , blue fleabane <i>Erigeron acer</i> and heath speedwell <i>Veronica officinalis</i> also occur.
Shaw Green Lane	1.9km	Ancient trackway with old hedgerows of at least medieval date with some old pollards and coppiced trees.
Basket's Wood	1.9km	Ancient semi-natural ash/field maple woodland with pedunculate oak.
Coldash Wood	1.9km	Ancient semi-natural ash/field maple woodland with pedunculate oak standards and hazel coppice.
Ardeley Pasture	2.0km	Old, semi-improved neutral grassland with species such as bird's-foot-trefoil <i>Lotus corniculatus</i> , common sorrel <i>Rumex acetosa</i> , cowslip <i>Primula veris</i> , common knapweed <i>Centaurea nigra</i> , meadow vetchling <i>Lathyrus pratensis</i> and pepper saxifrage <i>Silaum silaus</i> .

Habitat inventories and landscape-scale conservation initiatives

3.3 There are several areas of Habitats of Principal Importance located within 2km of the site. These include the following:

- A river is located approximately 0.1km east;
- Three area of coastal and floodplain grazing march, the closest of which is approximately 0.3km south;
- One area of good quality semi-improved grassland, approximately 1.7km west;
- Six areas of ancient woodland, the closest of which is approximately 1.3km south;
- More than 10 areas of deciduous woodland, the closest of which is 0.3km north-east; and
- One area of woodpasture and parkland, approximately 1.9km east.

HABITAT SURVEY

Overview

- 3.4 Habitat types are mapped in Appendix 1, Figure 4. A description of dominant and notable species and the composition of each habitat is provided below, along with the UKHabs code for each habitat type provided in brackets. Photographs are located in Appendix 2.

Habitat Description

- 3.5 The site comprised a residential property with associated garden, shed, greenhouse and trees, and dilapidated barn and developed land.

Modified grassland (UKHab code g4)

- 3.6 The majority of the site comprised modified grassland with trees (UKHab secondary code 32). Species present included rye grass *Lolium sp.*, ribwort plantain *Plantago lanceolata*, yarrow *Achillea millefolium*, nettle *Urtica dioica*, creeping buttercup *Ranunculus repens*, thistle *Cirsium sp.*, cleavers *Galium aparine*, chickweed *Stellaria media*, red dead nettle *Lamium purpureum* and ground ivy *Glechoma hederacea*. Bramble *Rubus fruticosus* was present across a lot of the grassland, mostly along the northern boundary.
- 3.7 Trees present included oak *Quercus robur*, cherry *Prunus sp.*, apple *Malus sp.* and elder *Sambucus nigra*.

Built up area (UKHab code u1)

- 3.8 Two buildings and a storage container (UKHab u1b5) were present on site including a dilapidated chicken shed and feed store/stables. Developed land sealed surface (u1b6) was present near the buildings and in the form of an access track. Dense ivy *Hedera helix* covered the store and part of the chicken shed.
- 3.9 The buildings are discussed in more detail below.

Mixed scrub (UKHab code h3h)

- 3.10 Mixed scrub was present behind the chicken shed. Species present included bramble, nettle, ivy, and a low number of trees including cherry and elder. Snowdrops and Lords and Ladies were also present.

PROTECTED, NOTABLE AND INVASIVE SPECIES ASSESSMENT

- 3.11 The potential for the site to support protected and/or notable species, as set out in Table 3.2 below, has been assessed using criteria provided in paragraph 2.5 and is based on the results of the desk study and observations made during the survey of habitats at the site. Those legally protected species not referred to have been scoped out as it is considered that the site does not contain habitats suitable to support them.
- 3.12 Key pieces of legislation are set out in detail in Appendix 3.

Table 3.2. Protected, notable and invasive species assessment

Ecological feature	Likelihood of occurrence
Bats: Roosting Foraging/commuting	Negligible Roosting: The chicken shed, stables/feed store and storage container were subject to a PRA. The buildings were considered to have negligible suitability for roosting bats (as detailed in Table 3.3). No potential roosting features were identified on the trees on site. Foraging/commuting: The trees, scrub and grassland provided suitable habitat for foraging/commuting bats. Forty-one records exist for bat species within 2km, including brown long-eared bat <i>Plecotus auritys</i>, common pipistrelle <i>Pipistrellus pipistrellus</i>, Daubenton's bat <i>Myotis daubentonii</i>, <i>Myotis sp.</i>, Natterer's bat <i>Myotis nattereri</i>, and soprano pipistrelle <i>Pipistrellus pygmaeus</i>. The majority of records were from field observations. No European Protected Species Mitigation licences for bats have been granted within 2km of the site in the last ten years.
Great crested newt	Moderate Two waterbodies were identified within 250m of the site. The grassland and scrub were suitable for newts. The site is located within an amber risk zone for great crested newts. Five records exist for this species within 2km in the last ten years, all from over 500m from the site. No European Protected Species Mitigation licences for great crested newts have been granted within 2km of the site in the last ten years.
Birds	Confirmed The buildings, trees and scrub on site had the potential to support nesting birds. Nests were recorded within the store, and several species were recorded foraging on site including redwing, blue tit, great tit, chaffinch, song thrush, blackbird, bullfinch, goldcrest, robin, greenfinch and pheasant. A total of 3838 records exist for birds within 2km in the last ten years, including 18 species listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended).
Reptiles	Low The grassland and scrub on site were suitable for reptiles. No records for reptiles exist within 2km of the site from the last ten years.
Badger	Low

Ecological feature	Likelihood of occurrence
	Mammal paths were recorded on site (Target Note 1 in Figure 3). No badger footprints were recorded in the mud along the paths, but deer footprints and rabbit droppings were present. No evidence of badger was recorded on or adjacent to the site. Forty-five records exist for this species within 2km in the last ten years.
Invasive non-native species	Negligible No invasive species were recorded during the survey. No records exist for invasive non-native species within 2km of the site in the last ten years.

Table 3.3. Preliminary Roost Assessment

Building/Tree number	Description/Species	Potential Roost Features (PRFs)	Suitability
Chicken shed	The chicken shed was in a state of disrepair. It was a two storey building of breeze block and timber framed construction. The roof comprised corrugated metal sheeting but had caved in. Several cages were still present within the building. Access was not possible into the building due to health and safety concerns with the structure but it was possible to see down the length of the building as it was open at each side.	None recorded. Some features may be present within the building but are unlikely to be of significant value to bats due to the exposed nature of the building to sunlight and weather conditions.	Negligible
Stables/feed store	A timber framed stable building was present to the west of the chicken coop. The building had a flat roof covered with corrugated metal sheeting. Open doorways were present on the western elevation. The eaves were open, with gaps visible. The building was covered with dense ivy. Internally, the building was open to the roof, with timber sarking covering the roof.	None recorded.	Negligible
Storage container	A metal storage container, with dense ivy coverage.	No PRFs recorded.	Negligible

4 Impact Appraisal and Recommendations

- 4.1 This section summarises the potential impacts on habitats and notable species that may be present at this site and sets out the recommendations for further survey and mitigation where required. The impact assessment is preliminary and further detailed assessment and surveys will be required to assess impacts and design suitable mitigation, where appropriate.

STATUTORY AND NON-STATUTORY SITES

- 4.2 Due to the distance of the site from protected sites, it is considered unlikely that any proposed development would be impacted by the works.

HABITATS

- 4.3 No Habitats of Principal Importance were recorded on site. The Habitats of Principal Importance in the surrounding area are unlikely to be impacted by the proposed works due to the size and scale of the project. Therefore, it is unlikely that protected habitats will be impacted by the works.

BATS

- 4.4 No potential roost features were identified on the buildings on site. Therefore, no further surveys are required. However, due to the complexity of the chicken shed it is recommended that a precautionary approach to demolition is undertaken with the roof materials removed by hand, or by a multi-purpose grab carefully and slowly removing the materials from the building. Under current proposals the stables/feed store are to be retained. A precautionary approach is not required for the storage container as it unlikely any bats would be present.
- 4.5 No PRFs were identified on the trees that will be impacted by works, so any bats that may be roosting within trees on site will not be impacted by the proposed works and further surveys of trees will not be required.
- 4.6 The impacts to habitats suitable for foraging/commuting bats are minimal and therefore unlikely to significantly impact foraging/commuting bats as the majority of trees and the scrub will be retained. Therefore, no further surveys are required. However, suitable lighting and native species planting should be considered on site with any lighting kept to a minimum and follow guidance provided in Institute of Lighting Professionals (2023).

GREAT CRESTED NEWTS

- 4.7 Two waterbodies are present within 250m of the site. The habitats on site were suitable for great crested newts in their terrestrial phase but only a small area of suitable habitat will be impacted by the works. Therefore, it is considered unlikely that an offence would be committed under the legislation that protects great crested newts, as shown in Table 4.1.

Table 4.1. Natural England rapid risk assessment

Component	Likely effect (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)	Notional offence probability score
Great crested newt breeding pond(s)	No effect	0
Land within 100m of any breeding pond(s)	0.001 - 0.01 ha lost or damaged	0.05
Land 100-250m from any breeding pond(s)	No effect	0
Land >250m from any breeding pond(s)	No effect	0
Individual great crested newts	No effect	0
Maximum:		0.05
Rapid risk assessment result:	GREEN: OFFENCE HIGHLY UNLIKELY	

- 4.8 However, a precautionary approach to works should be adopted. Any vegetation that has been left to grow long that requires removal to facilitate the works should be subject to a fingertip search by an experienced ecologist prior to works commencing. In the unlikely event that great crested newts are discovered prior to or during works all works must cease and the advice of a licenced ecologist sought.

BREEDING BIRDS

- 4.9 The buildings, trees and scrub on site were suitable for nesting birds. Any works to these habitats should be done outside the nesting bird season that runs from February to August. If this is not possible then a nesting bird check should be undertaken within 24 hours of works commencing with any nests identified left *in situ* until the chicks have fledged. Opportunities for nesting birds must be incorporated into the design of the proposed development to compensate for the loss of nesting opportunities.

REPTILES

- 4.10 The grassland on site was suitable for reptiles but further surveys are not considered proportionate to the impacts. However, the precautionary approach detailed in paragraph 4.8 above should be adopted. In the event that reptiles are discovered, they should be moved to an area away from the construction zone, into suitable retained habitat at the boundary of the site.

BADGER

- 4.11 No evidence of badger was recorded on or adjacent to the site. Therefore, it is unlikely that badgers are currently present but if any mammal holes are discovered prior to or during works all works must cease and the advice of an experienced ecologist sought.

OPPORTUNITIES FOR ECOLOGICAL ENHANCEMENT

- 4.12 Planning policy at the national and local level and strategic biodiversity partnerships encourage inclusion of ecological enhancements in development projects. Ecological enhancements can also contribute to green infrastructure and ecosystem services such as storm water attenuation and reducing the urban heat island effect. The accompanying Biodiversity Net Gain Assessment (Hawthorn Ecology, 2026) details how the development will achieve a 10% gain in biodiversity. Further measures for ecological enhancement could include the following:

- Installation of bat boxes onto the proposed building and/or mature trees within the site boundary;
- installation of bird boxes on the proposed building and/or trees on site; and
- native species planting including hedgerows and trees.

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Appendix 1: Maps

Figure 1: Site Context Map

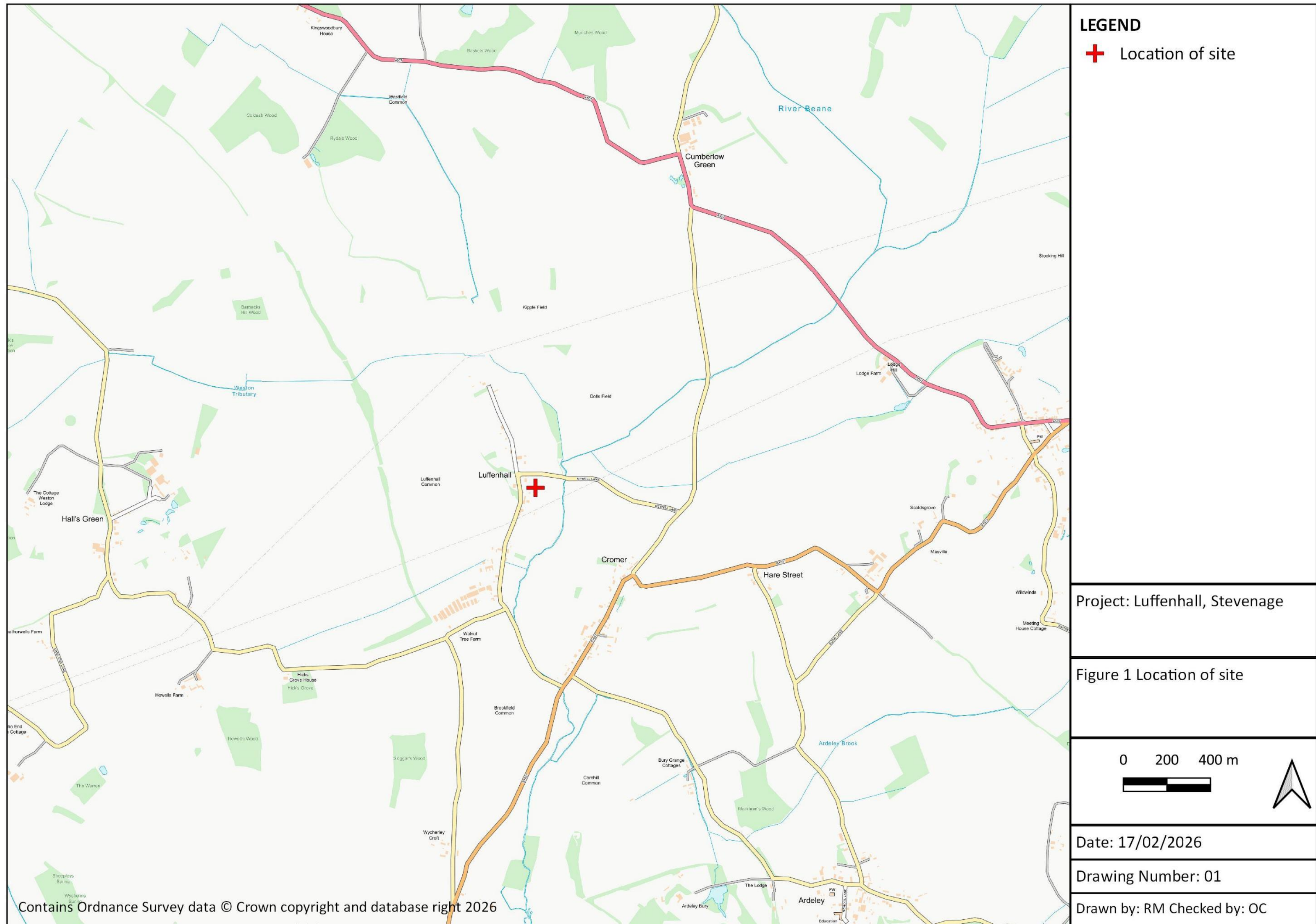


Figure 2: Extent of site boundary

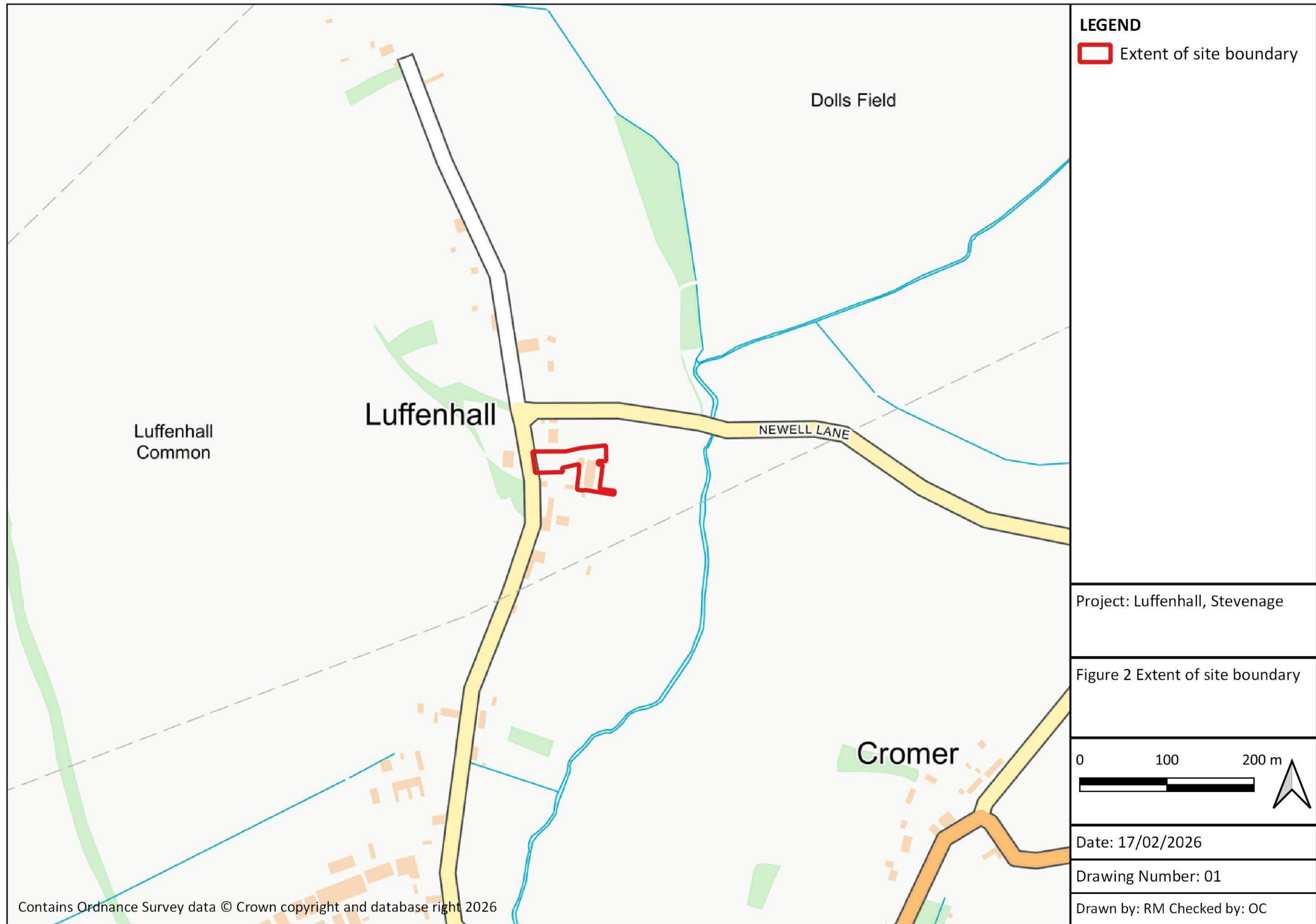


Figure 3: Habitat map



Figure 4: Waterbodies map

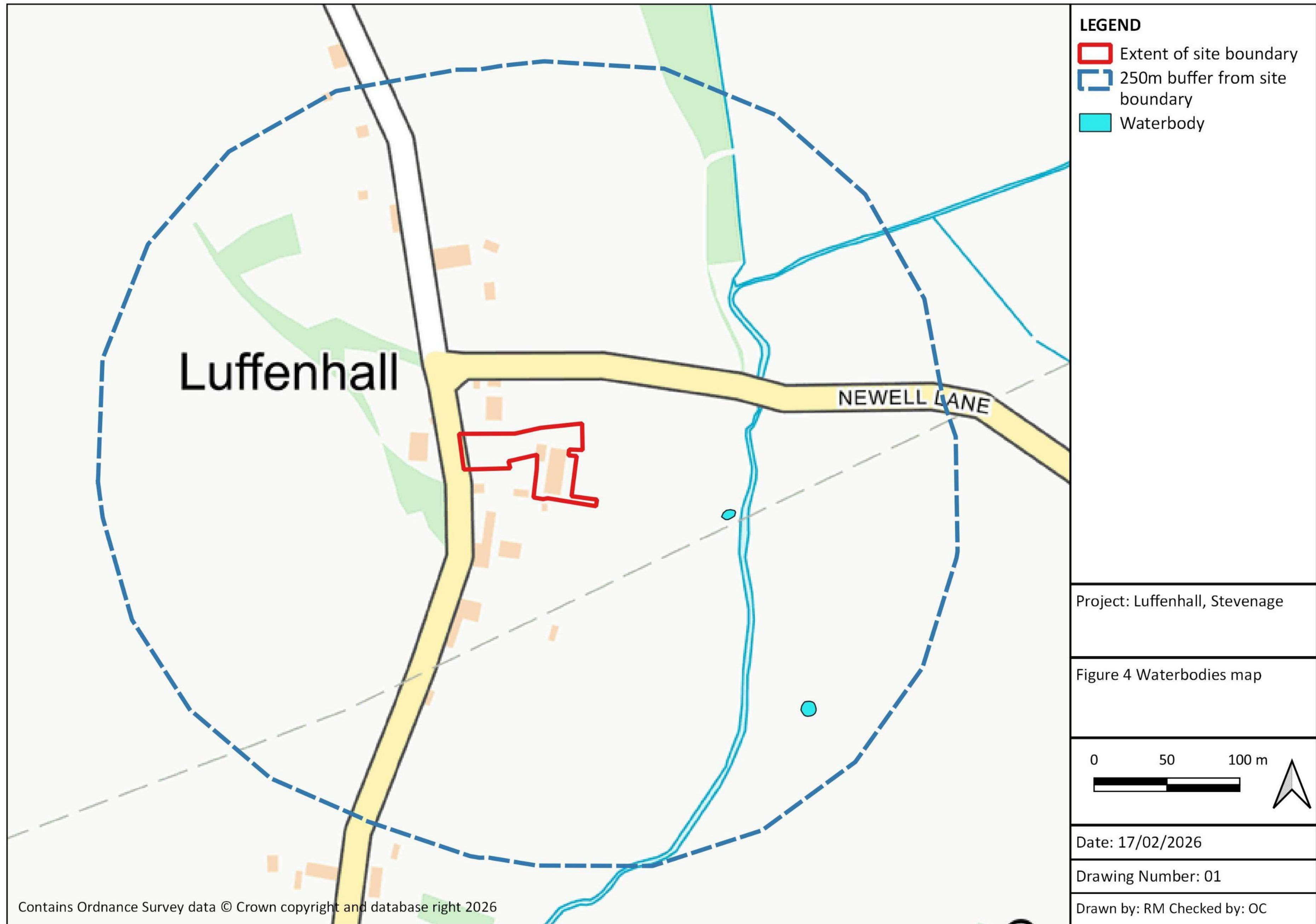
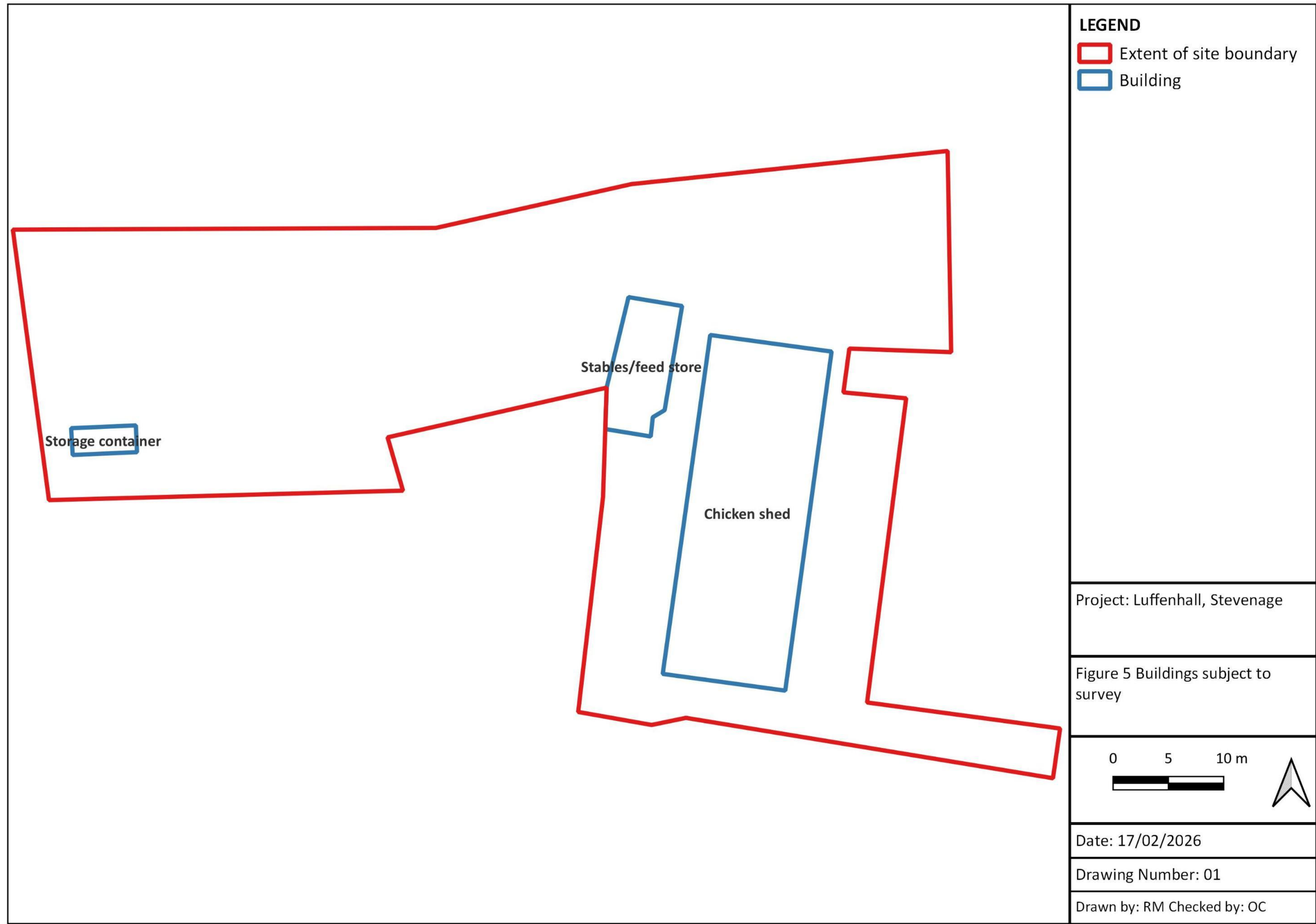


Figure 5: Buildings subject to survey



Appendix 2: Photographs

Photograph 1 Northern and eastern elevation of chicken shed



Photograph 2 Interior of chicken shed, northern elevation



Photograph 3 Western elevation of stables/feed store



Photograph 4 Interior of
stables/feed store



Photograph 5 grassland to west
of site, looking east



Photograph 6 Hardstanding
access track looking north from
chicken shed



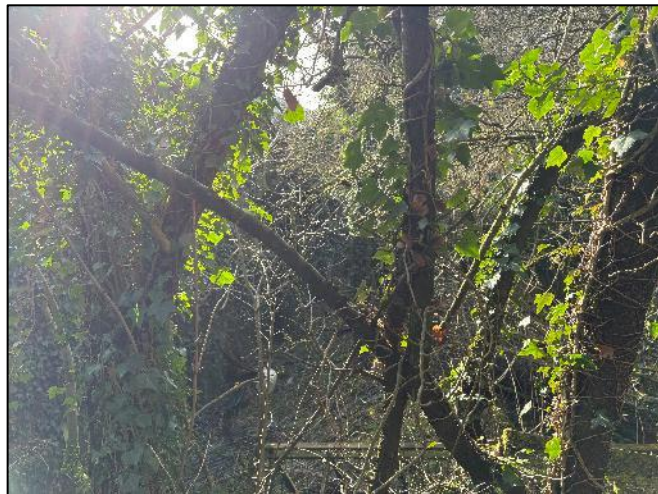
Photograph 7 grassland to east
of chicken shed



Photograph 8 Mammal path
(Target Note 1 in Figure 3)



Photograph 9 Mixed scrub to
west of chicken shed



Appendix 3: Legislation and Planning Policy

Important Notice: This section contains details of legislation applicable in England and Wales only (i.e. not including Scotland, the Isle of Man, Northern Ireland, the Republic of Ireland or the Channel Islands) and is provided for general guidance only. While every effort has been made to represent the current (at the time of writing) situation with respect to the UK's position outside of the EU and to ensure accuracy throughout, this section should not be relied upon as a definitive statement of the law.

Over the past few years, three important bills have been published which are intended to shape how growing pressures on the environment are tackled. Both the Agriculture Bill and Fisheries Bill gained Royal Assent in November 2020 and are now the Agriculture Act 2020 and Fisheries Act 2020 respectively; and, more recently, the Environment Bill was passed into law in November 2021, becoming the Environment Act 2021. *N.B. as environment policy is a devolved matter, most of this Act applies to England only.*

A LEGISLATION AFFORDED TO SPECIES

The objective of the EC Habitats Directive¹ is to conserve the various species of plant and animal which are considered rare across Europe. The Directive is transposed into UK law by **The Conservation of Habitats and Species Regulations 2017 (as amended)** and **The 'Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended)**.

Various amendments to the 2017 Regulations in England and Wales have been made through the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. These changes came into effect on the 1 January 2021 following the UK's departure from the EU and the end of the Transition Period. The changes are largely limited to 'operability changes' that will ensure the Regulations can continue to have the same working effect as before.

The Wildlife and Countryside Act 1981 (as amended) is a key piece of national legislation which implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and implements the species protection obligations of Council Directive 2009/147/EC (formerly 79/409/EEC) on the Conservation of Wild Birds (EC Birds Directive) in Great Britain.

Since the passing of the Wildlife & Countryside Act 1981, various amendments have been made, details of which can be found on www.opsi.gov.uk. Key amendments have been made through the Countryside and Rights of Way (CROW) Act (2000).

As well as delivering long-term targets to reduce waste and improve resource efficiency and improve air and water quality targets, the **Environment Act 2021** aims to halt the decline of nature by 2030,

¹ Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora

mandates Biodiversity Net Gain for developments in England and amends the Wildlife and Countryside Act 1981 (as amended) to introduce an additional purpose for granting a protected species licence in relation to development which is 'for reasons of overriding public interest'. The Act also introduces the Office for Environmental Protection (OEP), which will be a new public body intended to hold government and public authorities to account, although the government will be able to issue guidance to the OEP on how it enforces policies and legislation.

Some of the key biodiversity elements in the Act that will have a bearing on species protection in the UK include:

- A strengthened biodiversity duty on Local Planning Authorities;
- Biodiversity net gain to ensure developments, including Nationally Significant Infrastructure Projects (NSIP), deliver at least 10% increase in biodiversity;
- Local Nature Recovery Strategies to support a Nature Recovery Network;
- Duty upon Local Authorities to consult on street tree felling;
- Strengthen woodland protection enforcement measures;
- Conservation Covenants;
- Protected Site Strategies and Species Conservation Strategies to support the design and delivery of strategic approaches to deliver better outcomes for nature;
- Introduces the power for the Habitats Regulations to be amended or 'refocused' to 'to deliver creative public policy thinking that delivers results'.

Other legislative Acts affording protection to wildlife and their habitats include:

- Salmon and Freshwater Fisheries Act 1975;
- Deer Act 1991;
- Protection of Badgers Act 1992;
- Wild Mammals (Protection) Act 1996;
- Countryside and Rights of Way (CROW) Act 2000;
- Natural Environment & Rural Communities (NERC) Act 2006;
- The Eels (England and Wales) Regulations 2009; and
- Environment (Wales) Act 2016.

Species and species groups that are protected or otherwise regulated under the aforementioned legislation, and that are most likely to be affected by development activities, include herpetofauna (amphibians and reptiles), badger, bats, birds, dormouse, invasive species, otter, plants, red squirrel, water vole and white clawed crayfish.

Explanatory notes relating to species protected under The Conservation of Habitats and Species Regulations 2017 (as amended), which includes smooth snake, sand lizard, great crested newt, natterjack toad, all bat species, otter, dormouse and some plant, invertebrate and fish species, are given below. **These should be read in conjunction with the relevant species sections that follow.**

- In the Habitats Directive, the term ‘deliberate’ is interpreted as being somewhat wider than intentional and may be thought of as including an element of recklessness.
- The Conservation of Habitats and Species Regulations 2017 (as amended) does not define the act of ‘migration’ and therefore, as a precaution, it is recommended that short distance movement of animals for e.g. foraging, breeding or dispersal purposes are also considered where relevant.
- In order to obtain a mitigation licence for species protected under the Conservation of Habitats and Species Regulations 2017 (as amended), the application must demonstrate that it meets all of the following three ‘tests’: i) the action(s) are necessary for the purpose of preserving public health or safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequence of primary importance for the environment; ii) that there is no satisfactory alternative and iii) that the action authorised will not be detrimental to the maintenance of the species concerned at a favourable conservation status in their natural range.

Badger

Badgers *Meles meles* receive protection under The Protection of Badgers Act 1992 which consolidates the previous Badger Acts of 1973 and 1991 and is amended, in Scotland, by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2011. The Act makes it an offence to:

- Wilfully kill, injure, take, or attempt to kill, injure or take a badger;
- Cruelly ill-treat a badger, including use of tongs and digging;
- Possess or control a dead badger or any part thereof;
- Intentionally or recklessly damage, destroy or obstruct access to a badger sett² or any part thereof;

² A badger sett is defined in the legislation as “any structure or place which displays signs indicating current use by a badger”. This includes seasonally used setts. Natural England (2009) has issued guidance on what is likely to constitute current use of a badger sett: https://webarchive.nationalarchives.gov.uk/20140605121602/http://www.naturalengland.org.uk/Images/WMLG17_tcm6-11815.pdf

- Intentionally or recklessly disturb³ a badger when it is occupying a badger sett;
- Intentionally or recklessly cause a dog to enter a badger sett; and
- Sell or offer for sale, possess or have under his control, a live badger.

How is the legislation pertaining to badgers liable to affect development works?

The appropriate licence (e.g. a Development Licence⁴) will be required from the relevant countryside agency (e.g. Natural England, Natural Resources Wales) for any development works liable to affect an active badger sett, or to disturb badgers whilst in the sett. In Wales, the Welsh Government is responsible for issuing licences in relation to agricultural and forestry operations or works to maintain or improve any existing watercourse or drainage works, or to construct new works required for the drainage of land, including works of defence against seawater or tidal water.

Depending on the nature of the works and the specifics of the sett and its environs, badgers could be disturbed by work near the sett even if there is no direct interference or damage to the sett itself. The countryside agencies have issued guidelines on what constitutes a licensable activity. N.B. there is no provision in law for the capture of badgers for development purposes and therefore it is not possible to obtain a licence to translocate badgers from one area to another.

³ For guidance on what constitutes disturbance and other licensing queries, see Natural England (2006 revised 2011) Badgers & Development: A Guide to Best Practice and Licensing (IN75) <https://webarchive.nationalarchives.gov.uk/20150303064749/http://publications.naturalengland.org.uk/publication/73034>; Natural England (2009) Interpretation of 'Disturbance' in relation to badgers occupying a sett <https://webarchive.nationalarchives.gov.uk/20150303064749/http://publications.naturalengland.org.uk/publication/73034>; and Natural Resources Wales (2018) Badgers – A Guide for Developers <https://cdn.naturalresources.wales/media/684003/badger-fact-sheet-for-developers-english.pdf?mode=pad&rnd=131620320080000000> and Guidance on working close to badger setts without a licence via <https://naturalresourceswales.gov.uk/permits-and-permissions/species-licensing/uk-protected-species-licensing/badger-licences-issued-by-natural-resources-wales-and-the-welsh-government/?lang=en>

⁴ Natural England and Natural Resources Wales will only consider issuing a licence where detailed planning permission (if applicable to operation) has already been granted.

Bats

All species of bat are fully protected under The Conservation of Habitats and Species Regulations 2017 (as amended) through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. all bats);
- Deliberate disturbance of bat species as:
 - a) to impair their ability:
 - to survive, breed, or reproduce, or to rear or nurture young; or
 - to hibernate or migrate.
 - b) to affect significantly the local distribution or abundance of the species.
- Damage or destruction of a breeding site or resting place; and
- Keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part thereof.

Bats are also protected under the Wildlife and Countryside Act 1981 (as amended) in respect to sub-sections 9 (4) (b) and (c) and 9 (5) through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance while in their place of shelter (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale.

How is the legislation pertaining to bats liable to affect development works?

The appropriate licence issued by the relevant countryside agency (e.g. Natural England, Natural Resources Wales) will be required for works liable to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licence is to derogate from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Though there is no case law to date, the legislation may also be interpreted such that, in certain circumstances, important foraging areas and/or commuting routes can be regarded as being afforded

protection, for example, where it can be proven that the continued usage of such areas is crucial to maintaining the integrity and long-term viability of a bat roost⁵.

Birds

All wild birds, their nests and eggs are protected under Sections 1-8 of the Wildlife and Countryside Act 1981 (as amended). A wild bird is defined as any bird of a species that is resident in or is a visitor to the European Territory of any member state in a wild state. Among other things, the legislation makes it an offence to:

- Intentionally kill, injure or take any wild bird;
- Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built;
- Intentionally take or destroy an egg of any wild bird; or
- Sell, offer or expose for sale, have in his possession or transport for the purpose of sale any wild bird (dead or alive) or bird egg or part thereof.

Certain species of bird, for example the barn owl *Tyto alba*, black redstart *Phoenicurus ochruros*, hobby *Falco subbuteo*, bittern *Botaurus stellaris* and kingfisher *Alcedo atthis* receive additional special protection under Schedule 1 of the Act. This affords them protection against:

- Intentional or reckless disturbance while it is building a nest or is in, on or near a nest containing eggs or young.
- Intentional or reckless disturbance of dependent young of such a bird.

How is the legislation pertaining to birds liable to affect development works?

To avoid contravention of the Wildlife and Countryside Act 1981 (as amended), works should be planned to avoid the possibility of killing or injuring any wild bird, or damaging or destroying their nests. The most effective way to reduce the likelihood of nest destruction is to undertake work outside the main bird nesting season which typically runs from March to August⁶. Where this is not feasible, it will be necessary to have any areas of suitable habitat thoroughly checked for nests prior to vegetation clearance.

⁵ Garland and Markham (2008) Is important bat foraging and commuting habitat legally protected? Mammal News, No. 150. The Mammal Society, Southampton.

⁶ It should be noted that this is the main breeding period. Breeding activity may occur outside this period (depending on the particular species, geographical location of the site and vagaries of the season in any particular year) and thus due care and attention should be given when undertaking potentially disturbing works at any time of year.

Those species of bird listed on Schedule 1 are also protected against disturbance during the nesting season. Thus, it will be necessary to ensure that no potentially disturbing works are undertaken in the vicinity of the nest. The most effective way to avoid disturbance is to postpone works until the young have fledged. If this is not feasible, it may be possible to maintain an appropriate buffer zone or standoff around the nest. It should be noted that there is no threshold under which disturbance is not an offence, that is to say that disturbance need not be 'significant' for an offence to be committed.

While it is possible to obtain a licence to permit some activities that would otherwise constitute an offence, these can only be issued for specific purposes set out in the Act. This includes damage to crops, to preserve public health or safety and to preserve air safety, but does not include development, some land management and recreational activities and damage to property.

Herpetofauna (Amphibians and Reptiles)

The sand lizard *Lacerta agilis*, smooth snake *Coronella austriaca*, natterjack toad *Epidalea calamita*, great crested newt *Triturus cristatus* and pool frog *Pelophylax lessonae* receive full protection under The Conservation of Habitats and Species Regulations 2017 (as amended) through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of species listed on Schedule 2;
- Deliberate disturbance of any Schedule 2 species as:
 - to impair their ability:
 - to survive, breed, or reproduce, or to rear or nurture young; and
 - in the case of animals of a hibernating or migratory species, to hibernate or migrate.
 - to affect significantly the local distribution or abundance of the species.
- Deliberate taking or destroying of the eggs of a Schedule 2 species;
- Damage or destruction of a breeding site or resting place; and
- Keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part thereof.

With the exception of the pool frog, these species are also listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) in respect to sub-sections 9 (4) (b) and (c) and 9 (5). The pool frog is afforded protection in respect of sub-sections 9(4) (b) and (c) for England only. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance while in their place of shelter (at any level);
- Intentional or reckless obstruction of access to any place of shelter or protection; and

- Selling, offering or exposing for sale, possession or transporting for purpose of sale (excluding pool frog).

Other native species of herpetofauna are protected solely under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). Species such as the adder *Vipera berus*, grass snake *Natrix natrix*, common lizard *Zootoca vivipara* and slow-worm *Anguis fragilis* are listed in respect to sub-section 9 (1) & (5). For these species, it is prohibited to:

- Intentionally kill or injure these species; and
- Sell, offer or expose for sale, possess or transport for purpose of sale these species, or any part thereof.

Common frog *Rana temporaria*, common toad *Bufo bufo*, smooth newt *Lissotriton vulgaris* and palmate newt *L. helveticus* are listed in respect to sub-section 9 (5) only which affords them protection against sale, offering or exposing for sale, possession or transport for the purpose of sale.

How is the legislation pertaining to herpetofauna liable to affect development works?

The appropriate licence issued by the relevant countryside agency (e.g. Natural England, Natural Resources Wales) will be required for works liable to affect the breeding sites or resting places of those amphibian and reptile species protected under The Conservation of Habitats and Species Regulations 2017 (as amended). A licence will also be required for operations liable to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licences are to derogate from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Although not licensable, appropriate mitigation measures may also be required to prevent the intentional killing or injury of adder, grass snake, common lizard and slow worm, thus avoiding contravention of the Wildlife and Countryside Act 1981 (as amended).

Wild Mammals (Protection) Act 1996

All wild mammals are protected against intentional acts of cruelty under the above legislation. This makes it an offence to:

- Mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

To avoid possible contravention, due care and attention should be taken when carrying out works (for example operations near burrows or nests) with the potential to affect any wild mammal in this way, regardless of whether they are legally protected through other conservation legislation or not.

Non-native species (fauna)

Under Section 14 (1) of the Wildlife and Countryside Act 1981 (as amended), it is an offence to release, or allow to escape into the wild, *any* animal that is not ordinarily resident in and is not a regular visitor to Great Britain in a wild state, or is listed on Schedule 9 of the Act. Examples of species included on Schedule 9 are signal crayfish *Pacifastacus leniusculus*, American mink *Neovison vison*, grey squirrel *Sciurus carolinensis* and European pond terrapin *Emys orbicularis*. In the main, Schedule 9 species are those that are already established in the wild, but which continue to pose a threat to the conservation of native biodiversity and habitats, such that further releases should be regulated. The Schedule also includes some native species, such as barn owl *Tyto alba*, to ensure that any releases or re-introduction programmes are undertaken in consultation with the relevant authorities and in accordance with best practice guidelines.

How is the legislation pertaining to non-native faunal species liable to affect development works?

In most cases, development works are unlikely to infringe the legislation. This is because such operations are unlikely to result in the release or escape of non-native faunal species. However, there may be circumstances, particularly where works involve watercourses or water bodies, which have the potential to exacerbate the spread of e.g. signal crayfish or certain fish or amphibian species. If this is deemed a possibility, it will be necessary to ensure appropriate preventative measures are in place prior to and during the works.

B EUROPEAN AND NATIONAL LEGISLATION AFFORDED TO SITES AND HABITATS

As for certain species described above, habitats and sites are also protected directly through the Wildlife & Countryside Act 1981 (as amended), The Conservation of Habitats and Species Regulations 2017 (as amended) and The 'Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) through the notification, classification or designation of various protected sites as detailed below.

In addition, The Environment Act 2021 and the Water Framework Directive indirectly afford protection to non-designated habitats through the duties placed on public and private bodies to promote nature conservation and biodiversity, for example, the creation of Local Nature Recovery Strategies (LNRS) and associated Species Conservation and Protected Site strategies, and to reduce or avoid harmful

activities. Many of these duties and targets form the basis for national and local planning policy and wider conservation strategies and are not covered in detail here.

Statutory Site Designations: National

Nationally important areas of special scientific interest, by reason of their flora, fauna, or geological or physiographical features, are notified by the countryside agencies as statutory **Sites of Special Scientific Interest** (SSSI) under the National Parks and Access to the Countryside Act 1949 and latterly the Wildlife & Countryside Act 1981 (as amended). As well as underpinning other national designations (such as **National Nature Reserves** which are declared by the countryside agencies under the same legislation), the system also provides statutory protection for terrestrial and coastal sites which are important within a European context (formerly referred to as part of the Natura 2000 network and recently amended to the National Site Network in line with the UK's departure from the EU) and globally (such as Wetlands of International Importance) - see subsequent sections for details of these designations. Improved provisions for the protection and management of SSSI have been introduced by the Countryside and Rights of Way Act 2000.

The Wildlife & Countryside Act 1981 (as amended) also provides for the making of Limestone Pavement Orders, which prohibit the disturbance and removal of limestone from such designated areas, and the designation of Marine Nature Reserves, for which byelaws must be made to protect them.

Statutory Site Designations: International

Special Protection Areas (SPAs), together with Special Areas of Conservation (SACs) form the basis of the National Site Network (until recently, these were part of the Natura 2000 network whilst the UK was part of the EU). SPAs are identified and classified by the Government under the EC Birds Directive (Council Directive 2009/147/EC (formerly 79/409/EEC)) on the Conservation of Wild Birds) via the mechanisms set out in the Habitats Regulations (as applicable at the time of classification).

SPAs are areas of the most important habitat for rare (listed on Annex I of the Directive) and migratory birds within the European Union. Protection afforded SPAs in terrestrial areas and territorial marine waters out to 12 nautical miles (nm) is given by The Conservation of Habitats & Species Regulations 2017 (as amended). The 'Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) provide a mechanism for the classification and protection of European Marine Sites or EMS (SPAs and SACs) in UK offshore waters (from 12-200 nm).

SACs are identified and designated under the EC Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora) via the mechanisms set out in the Habitats Regulations (as applicable at the time of designation). These are areas which have been identified as best representing the range and variety of habitats and (non-bird) species listed on Annexes I and II to the Directive within the European Union. SACs in terrestrial areas and territorial marine waters out to 12 nautical miles are protected under The Conservation of Habitats & Species Regulations 2017 (as amended). The 'Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) provide a mechanism for the designation and protection of European marine sites or EMS (SACs and SPAs) in UK offshore waters (from 12-200 nm).

Ramsar sites are listed under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. The Convention covers all aspects of wetland conservation and wise use, in particular recognizing wetlands as ecosystems that are globally important for biodiversity conservation. Wetlands can include areas of marsh, fen, peatland or water and may be natural or artificial, permanent or temporary. Wetlands may also incorporate riparian and coastal zones adjacent to the wetlands. Ramsar sites are underpinned through prior notification as Sites of Special Scientific Interest (SSSI) and as such receive statutory protection under the Wildlife & Countryside Act 1981 (as amended) with further protection provided by the Countryside and Rights of Way (CROW) Act 2000. Policy statements have been issued by the Government highlighting the special status of Ramsar sites. This effectively extends the level of protection to that afforded to sites in England and Wales which have been designated under the EC Birds and Habitats Directives as part of the Natura 2000 network and now the National Site Network (e.g. SACs and SPAs).

Statutory Designations: Local

Under the National Parks and Access to the Countryside Act 1949 **Local Nature Reserves** (LNRs) may be declared by local authorities after consultation with the relevant countryside agency. LNRs are declared for sites holding special wildlife or geological interest at a local level and are managed for nature conservation and provide opportunities for research and education and enjoyment of nature.

Statutory Protection of Aquatic Habitats

Water Framework Directive and The Environment Act 2021

Aquatic habitats are also afforded protection under The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017, which transposes the Water Framework Directive 2000/60/EC (The WFD). At its core it aims to prevent deterioration of the water environment and improve water quality by managing water in natural river basin districts, rather than by administrative boundaries. It looks at ecological, physico-chemical, quantitative and morphological aspects of the water environment and requires that improvements take account of economic aspects, including costs and benefits. Plans to improve the status of water bodies are set out in River Basin Management Plans (RBMPs). The Directive aims for 'good status' of all ground and surface water (rivers, lakes, transitional water and coastal waters) in the EU and the UK. The Environment Agency and Natural Resources Wales are the competent authorities for river basin planning in England and Wales.

Any works which could affect the hydro-morphology, ecology or water quality of any classified waterbody up to 1nm out to sea requires an assessment under the WFD to demonstrate how any adverse impacts will be mitigated and, where possible, the status of the waterbody enhanced in order to achieve the required good status targets. Construction must have no permanent, unmitigated effects which cause any deterioration in the current status of any surface-water or groundwater body. If a WFD assessment shows an activity will either cause a deterioration in the status of a water body or jeopardise a water body achieving good status, it may then be necessary to consider whether it meets the criteria for an Article 4(7) exemption⁷.

The Environment Act also places a new statutory duty on government to produce a plan to reduce discharges from storm overflows, on water companies and the Environment Agency to publish data on storm overflow operation and on water companies to monitor the water quality upstream and downstream of storm overflows and sewage disposal works. The Act also contains a new duty on the water sector to create drainage and sewerage management plans and enables the revocation or variation of permanent abstraction licences where the change is necessary to protect the environment. This is because some older abstraction licences do not take account of fluctuating water availability and may enable too much water to be taken from the environment.

Non-Statutory Designations

Areas considered to be of local conservation interest may be designated by local authorities as a **Wildlife Site**, under a variety of names such as **Local Wildlife Sites (LWS)**, **County Wildlife Sites (CWS)**,

⁷ https://circabc.europa.eu/sd/a/e0352ec3-9f3b-4d91-bdbb-939185be3e89/CIS_Guidance_Article_4_7_FINAL.PDF

Listed Wildlife Sites (LWS), Local Nature Conservation Sites (LNCS), Sites of Biological Importance (SBIs), Sites of Importance for Nature Conservation (SINCs), or Sites of Nature Conservation Importance (SNICIs). The criteria for designation may vary between counties.

Together with the statutory designations, these are defined in Local Plan documents under the Town and Country Planning system and are a material consideration when planning applications are being determined. The level of protection afforded to these sites through local planning policies may vary between counties.

The Hedgerow Regulations 1997

The Hedgerow Regulations 1997 are intended to protect 'important' countryside hedgerows from destruction or damage. Under the 'Wildlife and Landscape' criteria of the Regulations, a hedgerow is considered important if (a) it has existed for 30 years or more; and (b) satisfies at least one of the criteria listed in Part II of Schedule 1 of the Regulations.

Under the Regulations, it is against the law to remove or destroy important hedgerows without permission from the local planning authority. Hedgerows on or adjacent to common land, village greens, SSSIs (including all terrestrial SACs, NNRs and SPAs), LNRs, land used for agriculture or forestry and land used for the keeping or breeding of horses, ponies or donkeys are covered by these regulations. Hedgerows '*within or marking the boundary of the curtilage of a dwelling-house*' are not.

C PLANNING POLICY

National Planning Policy Framework

The National Planning Policy Framework replaced PPS9 and emphasises the need for sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and priority species (see Section D below). An emphasis is also made for the need for ecological networks via preservation, restoration and re-creation. The protection and recovery of priority species is also listed as a requirement of planning policy. In determining planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from adverse harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; opportunities to incorporate biodiversity in and around developments are encouraged; planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

The Natural Environment and Rural Communities Act 2006 and The Biodiversity Duty

Section 40 of The Natural Environment and Rural Communities (NERC) Act requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act (Section 42 in Wales) requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity.' This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

D BIODIVERSITY ACTION PLANS (BAPs)

Since the publication of the UK BAP in 1994, new strategies and frameworks have resulted in the development of biodiversity issues and changes in the terminology used to describe these habitats and species in England. This has been brought about through the replacement of the previous England Biodiversity Strategy with *Biodiversity 2020: A Strategy For England's Wildlife and Ecosystem Services* (2011) and the replacement of the UK BAP itself with the *UK Post-2010 Biodiversity Framework* (2012). All previous UK BAP species and habitats are still of material consideration in the planning process but are now referred to as Habitats and Species of Principal Importance (as described under the NERC Act 2006 above).

The distribution of BAP/priority habitats has been used to identify Biodiversity Opportunity Areas at a regional scale through Biodiversity Strategies/Partnerships. They represent a strategic landscape scale approach to habitat creation, restoration or expansion. They represent regional priority areas of opportunity to restore and create key habitats. They are therefore a spatial representation of targets for Habitats of Principal Importance and are areas of opportunity, not constraint.