



RIVERDALE ECOLOGY



# Preliminary Ecological Appraisal

Land Opposite Hingham Sports Centre, Hingham, Norfolk

February 2020

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## Executive Summary

Riverdale Ecology Ltd were commissioned by Clayland Architects in February 2020 to carry out a Preliminary Ecological Appraisal (PEA) of a potential development site located opposite Hingham Sports Centre, on the western edge of Hingham, Norfolk; situated around Ordnance Survey Grid Reference TG 01635 02108. The appraisal was carried out in order to inform a planning application for a large scale residential development at the site.

The purpose of this PEA report is to establish the current biodiversity value of the site, to identify any potential ecological constraints or ecological impacts associated with the proposed development and provide recommendations for additional survey work to further evaluate any impacts that may risk contravention of legislation or policy relating to protected species and nature conservation.

The Application Site is a large field located to the west of Hingham, a village approximately 15km southwest of Norwich and within the administrative area for Breckland Council. Access to the site is via the B1108 Watton Road to the north of the site.

The Application Site is approximately 10 hectares in area comprising part of a large field, which was formerly arable but has been recently turned over to grassland. The site is bounded by hedgerows on the west and part of the northern boundary. The northeast corner of the site is bounded by residential gardens of the properties on the B1108 Watton Road and Rectory Gardens. To the south the boundary is undefined and contiguous with the remaining field. The wider landscape is generally arable with hedgerows linking to patches of plantation and semi-natural woodland.

The development proposal is for the construction of a large residential development over approximately 6 hectares located in the north of the site comprising approximately 103 residential dwellings with associated access, landscaping and utilities. The remaining area of the site will be planted up as a new broadleaved woodland providing approximately 4.2 hectares of community woodland.

The intrinsic value of the habitats on-site within a defined geographic context is generally considered to be of importance at site level only. Although the site is large, it is almost entirely composed of recently sown, species-poor improved grassland which has little ecological value. The site does support native hedgerows which are a Habitat of Principal Importance (HPI) under the NERC Act, but the hedgerows are not species-rich; however, the western boundary hedgerow is in excess of 30 years in age and may meet some of the criteria to qualify as 'important' under the Hedgerow Regulations 1997.

The habitats within the development footprint are common and widespread existing locally in both larger area and higher quality to the site. They do offer some opportunities as habitat for protected or noteworthy species but the loss of these habitats from within the site would be unlikely to affect the overall assemblage of species or the conservation status of any individual species beyond the context of the site.

The following ecological constraints have been identified within the site:

- Mature trees within the site and along the eastern site boundary have potential to support roosting bats;
- Hedgerows and trees along the boundaries of the site are likely to be used as foraging habitat for bats locally and may be disrupted by artificial lighting;
- There is suitable nesting habitat for common and widespread bird species within the hedgerows, trees and tall herb vegetation within the site. The grassland also provides some limited value for ground nesting skylarks;
- The site could support hedgehogs which are vulnerable to impacts from development; and

Mitigation measures recommended include:

- It is recommended that directional lighting is used to avoid illuminating habitat which could be utilised by bats. Of particular importance for this development site is to avoid light spill across the plantation woodland and hedgerow which are likely to provide opportunities for roosting, commuting and foraging for bats locally;

- Any clearance of suitable nesting vegetation should be undertaken outside of the bird nesting season (from 1<sup>st</sup> March to the 31<sup>st</sup> August, inclusive) where appropriate. If this is not possible a detailed inspection for nesting birds should be carried out by a suitably qualified ecologist no more than 48 hours prior to removal of vegetation;
- The grassland within the site should be mown to ground level outside of the bird nesting season and maintained at a short sward for the duration of the development in order to discourage nesting skylark; and
- Consideration should be given to hedgehogs during construction and hedgehog friendly features included into the design of the development.

Possible opportunities to enhance the wildlife potential, appropriate to this site, in line with NPPF policies to achieve NET GAIN in biodiversity through planning include:

- The proposals for the Application Site include the provision of approximately 4.2 hectares of new broadleaved deciduous woodland to the south of the residential development. The woodland should be planted with species typical of composition within other areas of woodland locally.
- The landscape plan for the site should include the provision of native species-rich hedgerows. Any new hedgerow planting should include native species only with a minimum of five woody species within each 30m section.
- Provision of bat boxes on trees within the site boundaries would provide suitable roost sites for a range of bat species present locally. A combination of Schwegler woodcrete boxes 1FF, 2F and 2FN would provide suitable permanent roosting conditions for many of the species recorded in local area. A number of wooden Kent bat boxes should also be installed which provide more natural roost locations, preferred by many species.
- House sparrow boxes should be installed on approximately 30% of new dwellings. Integrated boxes produced by birdbrickhouses or Schwegler would be the most appropriate option, at least two should be installed to provide a choice of nesting conditions.
- Swift boxes should be installed on all new dwellings. Integrated boxes should be installed during construction at approximately 5m above ground level and at appropriate locations advised by an ecologist.
- The rural location of the development site could provide suitable nesting habitat for barn owl. Provision of a nest box for barn owls would offer a safe nesting site overlooking fields adjacent to the site. The box should be installed on a tree or post on the eastern site boundary or on the edge of the woodland to the south of the site.

## 1 Introduction

### 1.1 Background to Commission

Riverdale Ecology Ltd were commissioned by Clayland Architects in February 2020 to carry out a Preliminary Ecological Appraisal (PEA) of a potential development site located opposite Hingham Sports Centre, on the western edge of Hingham, Norfolk; situated around Ordnance Survey Grid Reference TG 01635 02108. The appraisal was carried out in order to inform a planning application for a large scale residential development at the site.

### 1.2 Scope of Report

The purpose of this PEA report is to establish the current biodiversity value of the site, to identify any potential ecological constraints or ecological impacts associated with the proposed development and provide recommendations for additional survey work to further evaluate any impacts that may risk contravention of legislation or policy relating to protected species and nature conservation. Where necessary, avoidance, mitigation/compensation and/or enhancement measures have been recommended to ensure compliance. It is based on the following information sources:

- A desk study of the site and within a 2km surrounding radius; and
- A Phase 1 Habitat Survey (JNCC, 2010) of the site boundary and immediate surrounds to map habitats and identify features with potential to support protected or otherwise notable species.

This report has been prepared with reference to best practice as published by the Chartered Institute for Ecology and Environmental Management (CIEEM, 2017) and to British Standard 42020:2013 (BSI, 2013). This report provides recommendations for enhancement of the site for biodiversity in line with the National Planning Policy Framework (NPPF) (Department of Communities and Local Government, 2019) and best practice guidelines.

The survey, assessment and report were conducted and written by Danny Thomas CEcol, MCIEEM, Principal Ecologist at Riverdale Ecology Ltd. Danny has over 16 years' experience within ecological consultancy and as such is suitably qualified to undertake habitat surveys and protected species assessments. He is a Chartered Ecologist and has a BSc (Hons) in Ecology with Biology and an MSc in Environmental Sciences from the University of East Anglia. He holds current Natural England survey licences for great crested newts, bats, dormice and water vole and has a Schedule 1 licence for several protected bird species including barn owl and Cetti's warbler.

### 1.3 Site Description and Context

The Application Site is a large field located to the west of Hingham, a village approximately 15km southwest of Norwich and within the administrative area for Breckland Council. Access to the site is via the B1108 Watton Road to the north of the site.

The Application Site is approximately 10 hectares in area comprising part of a large field, which was formerly arable but has been recently turned over to grassland. The site is bounded by hedgerows on the west and part of the northern boundary. The northeast corner of the site is bounded by residential gardens of the properties on the B1108 Watton Road and Rectory Gardens. To the south the boundary is undefined and contiguous with the remaining field. The wider landscape is generally arable with hedgerows linking to patches of plantation and semi-natural woodland.

Plans of the site are included in Appendix 1 and Photographs are included in Appendix 2.

### 1.4 Project Overview

The development proposal is for the construction of a large residential development over approximately 6 hectares located in the north of the site comprising approximately 103 residential dwellings with associated access, landscaping and utilities. The remaining area of the site will be planted up as a new broadleaved woodland providing approximately 4.2 hectares of community woodland.

## 1.5 Relevant Legislation and Planning Policy

The following key pieces of nature conservation legislation are relevant to this appraisal:

- The Conservation of Habitats and Species Regulations, 2017 (as amended) (commonly referred to as the Habitats Regulations);
- Wildlife and Countryside Act 1981 (as amended); and
- Natural Environment and Rural Communities (NERC) Act 2006.

The National Planning Policy Framework (DfCLG, 2019) requires local authorities to avoid and minimise impacts on biodiversity and, where possible, to provide net gains in biodiversity when taking planning decisions:

*“The planning system should contribute to and enhance the natural and local environment by protecting and enhancing valued landscapes and minimising impacts on biodiversity and providing net gains in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.”*

To protect and enhance biodiversity and geodiversity, plans should:

*“Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and steppingstones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation;” and*

*“Promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.”*

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

*“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”.*

*“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,*

*“Developments 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”.*

A summary of relevant legislation and planning policy is provided in Appendix 3.

## 2 Methodology

### 2.1 Desk Study

A desk study was carried out to determine if any Statutory<sup>1</sup> land designations occur within 2km of the site; these were identified using the Multi-Agency Geographic Information for the Countryside website ([www.magic.gov.uk](http://www.magic.gov.uk)).

Aerial photographs were reviewed to identify any habitats surrounding the site or wildlife corridors connecting the site to other habitats. Ordnance Survey maps, aerial photographs and the MAGIC website were used to identify the presence of water bodies within 250m of the site in order to establish if the land within the site could be used as terrestrial habitat for great crested newts. This species can use suitable terrestrial habitat up to 500m from a breeding pond although Natural England research report ENRR574 suggests that newts are likely to travel no more than 250m from ponds where suitable habitats for foraging, refuge and hibernation exist in immediate proximity (Cresswell, W. & Whitworth, R. 2004). The 250m zone was considered an appropriate distance for this assessment based on the presence of several ponds directly adjacent to the Application Site and the low value of the terrestrial habitat within the site boundary.

Information relating to the location of non-Statutory<sup>2</sup> wildlife sites and records of protected<sup>3</sup> or otherwise notable<sup>4</sup> species was obtained from Norfolk Biodiversity Information Service (NBIS) within the site and up to 2km from the site boundary.

The status of species is taken directly from the relevant legislation, UK Biodiversity Action Plan (UK BAP, 2009), local (Norfolk) BAP or the list of Birds of Conservation Concern 4 (Eaton et al., 2015). The red and amber lists of Birds of Conservation Concern refer to bird species of particular conservation concern for a number of reasons. In general terms, Red list species are globally threatened showing severe recent declines in population. Amber list species are species either with unfavourable conservation status or those species showing moderate recent declines in population; they may also include particularly localised species.

### 2.2 Extended Phase 1 Habitat Survey

A habitat survey of the site was carried out including any boundary features of interest. Habitats were described and mapped broadly in accordance with standard Phase 1 Habitat survey methodology (JNCC, 2010). Habitats were also assessed against Habitat of Principal Importance (HPI) criteria as set out by the JNCC (<http://jncc.defra.gov.uk/page-5706>).

Scientific names are given for vascular plant species only, following their first mention, thereafter common names only are used. Nomenclature for vascular plants follows Stace (2010). Incidental records of birds and other fauna noted during the course of the habitat survey were also compiled.

The presence of invasive or injurious plant species as defined by Schedule 9 of the Wildlife and Countryside Act, 1981 (as amended) was also recorded.

### 2.3 Protected Species

The habitats were assessed for their potential to support legally protected species using a combination of the desk study information and field observations carried out during the habitat survey. The assessment was based on professional judgement and best practice survey guidance methodology for identifying field signs of protected species

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<sup>1</sup> **Statutory designations** include Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar sites, National Nature Reserves (NNR), Sites of Special Scientific Interest (SSSI) and Local Nature Reserves (LNR).

<sup>2</sup> **Non-statutory sites** are designated by local authorities and protected through the planning process (e.g. County Wildlife Sites, Sites of Importance for Nature Conservation or Local Wildlife Sites).

<sup>3</sup> **Legally protected species** include those listed in Schedules 1, 5 or 8 of the Wildlife and Countryside Act 1981; Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended); or in the Protection of Badgers Act 1992 (as amended).

<sup>4</sup> **Notable species** include Species of Principal Importance under the Natural Environment and Rural Communities Act 2006; Local Biodiversity Action Plan (LBAP) species; Birds of Conservation Concern (Eaton *et al.*, 2009); and/or Red Data Book/nationally notable species (JNCC, undated).



including but not limited to: badger (e.g. Roper, 2010); bats (Hundt, L. 2012, Collins, J. (ed) 2016, Mitchell-Jones, A. 2004, Andrews, H. 2018); hazel dormouse (English Nature, 2006); great crested newt (Langton et al, 2001; English Nature, 2001; Cresswell & Whitworth 2004); reptiles (Gent and Gibson, 2003), barn owl (Shawyer, 1998) and UK BAP Mammals (Cresswell et al, 2012). The potential for protected species presence was based on the following criteria:

- **Present** – Confirmed presence through first-hand survey evidence or recent verified records.
- **High Potential** – Local records highlight presence in the local vicinity. The site and immediate surrounds support good quality habitat or good connectivity to such habitat.
- **Moderate Potential** – Habitat within the site provides key elements for any species or species group although may be limited by factors including habitat area, isolation or disturbance. Desk study records highlight presence in proximity to site.
- **Low Potential** – On-site habitat is of low quality for any species or species group, lacking key elements and limited by factors including habitat fragmentation and habitat area. Few or absence of local records but within national distribution and thus cannot be completely discounted.
- **Negligible Potential** – Habitats within the site are very poor quality or completely absent for any species or species group. Desk study records are absent, the site is outside of the normal range of the species or species group and the surrounding habitat is unlikely to support wider populations. Presence cannot be completely ruled out, but it is considered 'reasonably unlikely' to support any species or species group.

The findings of this assessment establish any requirement for targeted protected species surveys that may be required to achieve compliance with relevant legislation. Surveys may be required where a site is judged to be of low suitability for a particular species or species group, alternatively it may be more appropriate to ensure compliance with protected species legislation through precautionary measures prior to and during construction.

Specific features within the site with potential to support protected species such as buildings and trees which may support bat roosts, waterbodies which may support water vole, otters and white-clawed crayfish and ponds which may support great crested newts will be superficially assessed to determine potential but further surveys may be required if potential is identified.

## 2.4 Preliminary (Ground Level) Tree Bat Roost Assessment

A Preliminary Roost Assessment (PRA) survey of any trees within the site boundary was undertaken in accordance with best practice guidelines for assessing roost potential of trees (Collins, J. (ed.) 2016; Hundt, L. 2012, Andrews, H. 2018).

The survey comprised a systematic and detailed inspection of the exterior of the tree from ground level to search for Potential Roost Features (PRFs) which could be utilised by bats for roosting. The survey comprised a description of the physical characteristics of the tree alongside identification of any PRFs or evidence of roosting bats. PRFs found in trees include woodpecker holes; rot holes; vertical or horizontal cracks or splits in limbs; partially detached or loose bark; epicormic growth; enclosed gaps between overlapping stems or branches; and dense ivy with stem diameter in excess of 50mm.

## 2.5 Great Crested Newt Habitat Suitability Index (HSI)

Accessible ponds within 250m of the Application Site were assessed using the Habitat Suitability Index (HSI) methodology (Oldham et al., 2000). The HSI of a pond is determined by calculating a geometric mean of ten variables that are known to have an influence on its suitability as a breeding location for great crested newts (see Table 1), thus:

$$HSI = (SI1 \times SI2 \times SI3 \times SI4 \times SI5 \times SI6 \times SI7 \times SI8 \times SI9 \times SI10)^{1/10}$$

Table 1: HSI parameters.

Parameter	Name	Description
SI1	Geographic Location	Lowland England or upland England, Scotland and Wales
SI2	Pond area	To the nearest 50m <sup>2</sup>
SI3	Permanence	Number of years' pond dry out of ten
SI4	Water quality	Measured by invertebrate diversity
SI5	Shade	Percentage shading of pond edge at least 1m from shore
SI6	Fowl	Level of waterfowl use
SI7	Fish	Level of fish population
SI8	Pond count	Number of ponds within 1km <sup>2</sup>
SI9	Terrestrial habitat	Quality of surrounding terrestrial habitat
SI10	Macrophytes	Percentage extent of macrophyte cover on pond surface

Once calculated, the HSI score for a waterbody can be categorised as follows (Oldham et al, 2010):

- Excellent (>0.8)
- Good (0.7 – 0.79)
- Average (0.6 – 0.69)
- Below Average (0.5 – 0.59)
- Poor (<0.5)

## 2.6 Site Evaluation

An evaluation of the site was carried out in general accordance with guidance issued by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2019) which ranks the nature conservation value of a site according to a geographic scale of reference: International/ European, National, Regional, Metropolitan, County, vice-county or other local authority-wide area, or of value at the Local scale or just within the context of the site.

In evaluating the nature conservation value of the site, the following factors were considered: nature conservation designations, rarity, naturalness, fragility, connectivity and relevant nature conservation aims and objectives for a given area as contained in national and local biodiversity action plans and planning policies.

## 2.7 Survey and Assessment Limitations

The data and conclusions presented here are an evidence-based assessment of the current status of the application site and should not be taken as providing a full and definitive survey of any protected species group. The results of this ecological assessment have allowed an evaluation of the likely ecological constraints to the proposed development and are considered sufficient to inform the need for further ecological survey and mitigation measures.

Ecological surveys are limited by factors which affect the presence of plants and animals such as the time of year, migration patterns and behaviour. Therefore, the absence of evidence of any particular species should not be taken as conclusive proof that the species is not present or that it will not be present in the future.

### 3 Results

#### 3.1 Desk Study

##### *Statutory Sites for Nature Conservation*

There is one statutory site for nature conservation within 2km of the site.

##### *Sea Mere, Hingham Site of Special Scientific Interest (SSSI)*

Sea Mere SSSI is located approximately 1.5km southeast of the Application Site. The SSSI contains a sizeable natural lake and an area of species-rich fen and grazing marsh. Additional interest is provided by deciduous plantations that retain some elements of older woodland. The site has ornithological interest because of the diversity of habitats that it contains. The Mere itself has dense growths of phytoplanktonic algae probably as a result of excretal enrichment from wintering gulls and as a result water plants are restricted to a few patches of yellow water lily *Nuphar lutea*. The marginal vegetation is dominated by reed *Phragmites australis*. Breeding birds include great crested grebe and kingfisher, and there are large numbers of duck in winter.

The grazing marshes are generally very wet due to poor drainage and are dominated by tufted hair-grass *Deschampsia cespitosa* and fen rush *Juncus subnodulosus*. On the lowest lying parts of the site a fen community has developed, dominated by several species of sedge *Carex spp.*, fen rush and reed canary-grass *Phalaris arundinacea*. The fen is species-rich and includes saw sedge *Cladium mariscus*, marsh orchids *Dactylorhiza spp.*, marsh pennywort *Hydrocotyle vulgaris*, ragged robin *Lychnis flos-cuculi*, yellow loosestrife *Lysimachia vulgaris*, yellow iris *Iris pseudacorus* and the rare green figwort *Scrophularia umbrosa*. Willow *Salix sp.* is abundant on parts of the marsh and is spreading. Breeding birds include snipe, reed bunting, sedge and grasshopper warblers.

The drier parts of the marsh have been partially improved and are grazed by cattle. The mature plantations surrounding Sea Mere are mostly maiden trees of oak *Quercus robur*, ash *Fraxinus excelsior* and sycamore *Acer pseudoplatanus*, although small areas of coppiced hazel *Corylus avellana* are present under oak standards. The ground flora is dominated by dog's mercury *Mercurialis perennis* with lords-and-ladies *Arum maculatum*, common twayblade *Listera ovata* and nettle-leaved bellflower *Campanula trachelium*. The presence of herb paris *Paris quadrifolia* suggests that some small areas of older woodland have been incorporated into the plantation.

The site is also a candidate County Geodiversity Site.

##### *Non-Statutory Sites for Nature Conservation*

There are two non-statutory County Wildlife Sites (CWS) within 2km of the site boundary, these are discussed in detail in Table 2 below:

**Table 2:** Non-Statutory Sites within 2km of Site Boundary.

Site Name	Distance from site and Orientation	Reason for Designation
CWS 161: Gurney's Wood CWS	650m Southwest	This is a small block of oak / ash woodland situated in the centre of a large field. The canopy is generally loose and open and is dominated by oak although ash is abundant. Sycamore is occasional and there is a ring of spruce <i>Picea spp.</i> around the periphery. The understorey is coppiced hazel with some elder <i>Sambucus nigra</i> , dogwood <i>Cornus sanguinea</i> and elm <i>Ulmus spp.</i>

Site Name	Distance from site and Orientation	Reason for Designation
CWS 160: Moneyhill Meadow CWS	1.6km southeast	This is a small grassland site bisected by a small stream and fence line. A thin strip of scrub occurs along the northern edge and one of tall ruderal herb vegetation to the south. The fields appear unmanaged and ungrazed although deer do frequent the site. The majority of the site consists of semi-improved grassland over a neutral soil with impeded drainage.

The proposed development site is not subject to any statutory or non-statutory nature conservation designations and does not contain equivalent habitat that could be considered as functionally linked to any nature conservation sites.

In addition, the site is not located in proximity to any statutory or non-statutory designated site where the development could result in direct impacts to any designated site. Any impacts resulting from the proposed development are anticipated to be localised and are not expected to extend beyond the redline site boundary.

### 3.2 Habitat Survey

#### Summary

The habitat survey was carried out on 5<sup>th</sup> February 2020 in appropriate weather conditions.

The site comprises a large arable field which has recently been seeded with grassland. The field is bounded to the west and partly along the northern edge by a species poor native hedgerow. There are two ponds immediately to the south of the site and mature trees along the eastern site boundary. In the north east corner of the site, the boundary is demarked by garden boundaries of properties along the B1108 Watton Road and Rectory Gardens.

A Phase 1 Habitat Plan is included in Appendix 1.

#### Improved grassland

The majority of the site comprises recently seeded, improved grassland (Appendix 2, Photographs 1 & 2). The sward is dominated by what appears to be Italian ryegrass *Festuca perennis* with some fescue likely to be a derivative of red fescue *Festuca rubra*. There are very occasional wild grasses including cock's foot *Dactylis glomerata* which are likely to have emerged from the natural seed bank. Flowering forbs are very infrequent and restricted to spear thistle *Cirsium vulgare*, scentless mayweed *Tripleurospermum inodorum*, annual mercury *Mercurialis annua* and sow thistle *Sonchus oleraceus*.

#### Hedgerows

Approximately 120m of the northern site boundary, from the existing site entrance up to the northwest corner of the site comprises a species-poor hedgerow (Appendix 2, Photograph 3). The hedgerow almost entirely comprises blackthorn *Prunus spinosa* with a single small hawthorn *Crataegus monogyna* at the east end of the hedgerow. Ivy and bramble are frequent throughout its length and ground flora includes cock's foot, cleavers *Galium aparine* and nettles.

Hedgerow H2 forms the western boundary of the site (Appendix 2, Photograph 4). The hedgerow is located adjacent to a ditch which is largely dry long much of its length. The hedgerow is well established and likely to have been present for in excess of thirty years. The hedgerow principally comprises blackthorn and hawthorn with occasional field maple *Acer campestre*, elder and ash. Semi-mature oak trees are also occasionally present within the hedgerow.

Hedgerow H3 is a section of scrubby hedgerow separating the site from the gardens of properties along Watton Road. The hedgerow is poorly managed at the eastern end but continuous. Moving west the hedgerow becomes more gappy and defunct with some sections highly manicured (Appendix 2, Photograph 5)

#### *Tall herbs and nettles*

Around the edges of the site the improved grassland is replaced by rough grassland with tall herb vegetation which is most evident on the western site boundary on the banks of the drainage ditch (Appendix 2, Photograph 6). The grasses here are native species including cock's foot, Yorkshire fog *Holcus lanatus* and bent grass *Agrostis spp.* with occasional false oat-grass *Arrhenatherum elatius*. Tall herbs present include nettles with broadleaved dock *Rumex obtusifolius*, burdock *Arctium spp.*, rosebay willowherb *Chamerion angustifolium*, hogweed *Heracleum sphondylium*, herb Robert *Geranium robertianum* and lords and ladies. Low growing bramble is present throughout.

#### *Individual Trees*

There are a number of trees within the site, principally located within the site boundaries. The western boundary hedgerow contains several semi-mature oaks; whilst on the eastern site boundary there is a row of four to five mature trees including two very large, mature oak trees (Appendix 2, Photograph 7).

There is also a lone infield oak tree (Appendix 2, Photograph 8) and a few trees around a former pond including ash, oak and hawthorn (Appendix 2, Photograph 9). Both these areas will be integrated into the new woodland area.

#### *Offsite habitats*

There were eight ponds within 250m of the Application Site identified on OS maps:

Pond 1 is an infield pond located within the proposed woodland area of the site. The pond is no longer present and appears to have become dry and scrubbed over and may have been filled. There is no longer any depression present which could collect and retain standing water.

Pond 2 is an infield pond located approximately 15m south of the Application Site (Appendix 2, Photograph 10). The pond is surrounded by blackthorn scrub and mature trees including oak and willow *Salix spp.*

Pond 3 is located approximately 105m west of the site.

Pond 4 is located in a paddock approximately 115m west of the site.

Pond 5 is located 170m west of the site within Rectory Farm.

Pond 6 is located 190m to the east of the site.

Pond 7 is located 210m west of the site.

Pond 8 is located 215m northwest of the site on the opposite side of Watton Road.

### 3.3 Protected Species

#### *Bats*

There were 135 individual records comprising ten species of bats within 2km of the site returned in the NBIS data search. Species recorded include Western barbastelle, serotine, Daubenton's bat, Natterer's bat, Brandt's or whiskered bat, noctule, soprano pipistrelle, common pipistrelle, Nathusius pipistrelle and brown long-eared bat. The majority of the data was collected between 2013 and 2018 at various locations locally, as part of the Norfolk Bat Survey.

There are no buildings within the Application Site which have potential to support roosting bats.

There are three trees within the site which exhibit Potential Roost Features (PRF) capable of supporting roosting bats.

Tree T1 is an isolated infield tree located within the southern part of the site. The tree exhibits a number of cavities, crack and fissures which could support roosting bats. However, the tree is very isolated within the centre of the field, over 135m from the nearest hedgerow or equivalent foraging habitat. Based on the isolation, it is considered reasonably unlikely that this tree will support roosting bats.

Tree T2 is one of two large oak trees located on the eastern site boundary. The tree exhibits several areas of rot and cavities caused by damage. Of particular note is a horizontal cavity on a major limb (Appendix 2, Photograph 11) which is fairly large and provides a sheltered cavity which has potential to be utilised by larger accumulations of bats. There is also a cavity formed within a knot hole (Appendix 2, Photograph 12) which may also extend into a larger cavity capable of supporting more important roosts. The tree is somewhat isolated from any significant areas of foraging habitat and the absence of connective habitat is likely to reduce the likelihood of it being a regular roost site.

T3 is the second of two large oak trees on the eastern site boundary. The tree is in fairly good condition but does support substantial ivy growth up the main trunk.

It is not anticipated that any trees will require removal to facilitate the development and in fact the trees with potential for roosting bats are located within the part of the site to become new broadleaved deciduous woodland. The new woodland is likely to increase the value of the trees as potential roost sites by providing immediate foraging habitat and increasing connectivity to other roosting and foraging habitat within the wider landscape.

The improved grassland which forms the majority of the Application Site has no value as foraging habitat for bats. It may increase in value if managed for hay production, but only large bats which forage over open ground such as noctules are likely to benefit. The hedgerows are likely to provide some opportunities for foraging and commuting but they don't appear to connect areas of key foraging habitat or provide commuting habitat between any likely roost sites and foraging habitat. The western boundary hedgerow is likely to be retained but the northern hedgerow parallel with the B1108 may need to be removed to provide appropriate visibility splay. The loss of this hedgerow is unlikely to lead to any significant impacts on the distribution of bats locally. The creation of approximately 4 hectares of new broadleaved deciduous woodland as part of the development proposals is likely to lead to significant benefits to bats in the long term.

#### *Great Crested Newts*

There were no records of great crested newt returned in the NBIS data search within 2km of the site.

There are no ponds within the site but there are seven ponds within 250m of the site boundary. The closest pond is located approximately 15m to the south of the Application Site. The pond is isolated within the middle of a very large field which was formerly arable but is now improved grassland. The historic isolation of the pond would likely prevent the colonisation of great crested newts, although the pond itself has dense scrub surrounding it, which would provide adequate terrestrial habitat for great crested newts. Other ponds within 250m of the site have very limited connectivity.

The habitats within the Application Site principally comprise the former arable field which is now seeded as improved grassland. Both habitat types have negligible value as terrestrial habitat for great crested newts. The proposed development will not result in the loss of any credible habitat for great crested newts and will not impede great crested newt movement between likely breeding ponds and associated areas of terrestrial habitat. As such the proposed development is not considered likely to affect great crested newts, even in the unlikely event that they are present locally.

#### *Birds*

There were extensive records of bird species returned by NBIS, comprising many common species as well as species of conservation concern and Schedule 1 listed species including barn owl, grey partridge and skylark.

In general, the habitats within the site have low value to many of the key species of conservation concern identified in the data search, but the site may support a small assemblage of common or widespread species with some potential to support red or amber listed species of conservation concern including species listed on the farmland bird assemblage.

A single skylark and yellowhammer were observed during the site visit. The field is likely to have supported nesting skylarks during periods when appropriate crops were cultivated. The improved grassland has little value for skylark but may still support a single or very small numbers of breeding pairs. Yellowhammers could nest in the boundary hedgerows.

The proposed development will result in the loss of approximately 10 hectares of suitable nesting habitat for skylark but will include 4.2 hectares of woodland which is high value habitat for a wide variety of other species. Based on the typical nesting densities of skylark within mixed lowland farmland, the expected number of territories within the Application Site would be approximately two breeding territories. The proposed development will result in the entire loss of nesting skylark from within the site. The arable habitat requirements for skylark simply cannot be accommodated or replicated within a residential development or the broadleaved deciduous woodland.

However, skylarks are accustomed to living alongside the dynamic nature of farmland and are regularly displaced from fields between years and sometimes within breeding seasons as the suitability of the crop type changes. This displacement is usually temporary, and fields become suitable for nesting again when the fields are cultivated with appropriate crops. The housing development will result in the permanent, irreversible loss of habitat for skylark.

The loss of the expected small number of nesting territories within the site is considered to be significant at the site level only as the habitat within the site is only able to support two breeding territories and the proposed development is unlikely to affect the distribution of skylark beyond the site and immediate survey area. The arable fields to the south of the site are still anticipated to support nesting skylark, assuming appropriate crops are cultivated and as such, the loss of two nesting territories is not likely to significantly affect the overall local population of skylark.

As compensation, the development will provide habitat measures to encourage other bird species of equivalent conservation status which will inhabit urban and woodland habitats such as swifts and house sparrows.

Other species recorded on site during the PEA site visit included woodpigeon, chaffinch, buzzard, carrion crow, blue tit, great tit, goldfinch, robin, dunnoek, wren, meadow pipit, song thrush, jackdaw and treecreeper.

Suitable nesting habitat exists in the trees and boundary hedgerows and tall herb vegetation.

#### *Reptiles*

There were no records of reptiles returned by NBIS within 2km of the site.

The habitats within the site have negligible potential to support reptiles.

#### *Badgers*

There were two records of badgers returned by NBIS within 2km of the site.

The site does offer some opportunities as foraging habitat for badgers and although they are likely to be present locally no setts or other evidence of badger activity were identified during the site survey.

#### *Other protected species*

There was one record of European otter returned by NBIS within 2km of the site.

However, the site does not contain any suitable aquatic habitat which could support otters.

#### *NERC Act SPI /Local or National BAP Species*

There were 15 records of hedgehog and 13 records of brown hare returned in the NBIS data search. Both species are likely to be present locally and may utilise the habitats within the site for foraging and refuge.

## 4 Discussion and Recommendations

### 4.1 Nature Conservation Evaluation

The intrinsic value of the habitats on-site within a defined geographic context is generally considered to be of importance at site level only. Although the site is large, it is almost entirely composed of recently sown, species-poor improved grassland which has little ecological value. The site does support native hedgerows which are a Habitat of Principal Importance (HPI) under the NERC Act, but the hedgerows are not species-rich; however, the western boundary hedgerow is in excess of 30 years in age and may meet some of the criteria to qualify as 'important' under the Hedgerow Regulations 1997.

The habitats within the development footprint are common and widespread existing locally in both larger area and higher quality to the site. They do offer some opportunities as habitat for protected or noteworthy species but the loss of these habitats from within the site would be unlikely to affect the overall assemblage of species or the conservation status of any individual species beyond the context of the site.

### 4.2 Constraints and Mitigation/Compensation

#### *Bats*

Bats are sensitive to artificial lighting which can disrupt the normal 24-hour pattern of light and dark and is likely to affect the natural behaviour of bats. Bright light may reduce social flight activity or restrict access to foraging areas causing bats to move away from the light area. Studies have shown that in extreme cases continuous lighting can sometimes create barriers which some bat species will not cross. Lighting can be particularly harmful if used near high value foraging and commuting habitat such as woodland edges, hedgerows or rivers.

It is recommended that directional lighting is used to avoid illuminating habitat which could be utilised by bats. Of particular importance for this development site is to avoid light spill across the boundary trees, which have Potential Roost Features capable of supporting roosting bats, and the boundary hedgerows which are likely to provide opportunities for commuting and foraging bats locally. External lighting in the vicinity of these areas should be managed carefully and designed to avoid excessive light spill which could disrupt bats.

#### *Birds*

Any clearance of suitable nesting vegetation, including trees and hedgerows should be undertaken outside of the bird nesting season (from 1<sup>st</sup> March to the 31<sup>st</sup> August, inclusive) where appropriate. If this is not possible a detailed inspection for nesting birds should be carried out by a suitably qualified ecologist no more than 48 hours prior to removal of vegetation capable of supporting nesting birds. Any active nests found must be retained with an appropriate buffer until young birds have fledged, and the nest is no longer in use.

Furthermore, the grassland within the Application Site should be mown to ground level prior to the commencement of works. This should be undertaken outside of the nesting season to avoid impacts to ground nesting species including skylark. The grassland within the site should be then be maintained at a short sward throughout the construction period to discourage nesting by skylark or other ground nesting bird species. Provision of swift boxes and house sparrow boxes should be included within the development to compensate for the loss of skylark nesting opportunities within the Application Site.

#### *Hedgehogs*

Consideration should be given to hedgehogs during construction and hedgehog friendly features included into the design of the development. Provision of woodpiles or a hedgehog house would provide necessary refuge for this species and the development should seek to reduce any potential fragmentation of habitats though the introduction of physical barriers to dispersal such as hardstanding, fences and artificial lighting.



### 4.3 Ecological Enhancement

The National Planning Policy Framework (NPPF) encourages developers to incorporate habitat enhancement measures into development projects with the aim of providing tangible benefits for wildlife and achieving no net loss or where possible an observed gain in biodiversity within an individual site. Where opportunities exist, an individual development may provide enhancements to biodiversity which contribute to wildlife and habitat connectivity in the wider area. Enhancements act to improve the quality of the habitat for the flora and fauna on and within the vicinity of the site, although these enhancements may also provide aesthetic appeal.

Possible opportunities to enhance the wildlife potential, appropriate to this site, are provided below. It is important that any measures adopted be clearly demonstrated to the Planning Authority through inclusion in design plans and accompanying documentation.

- The proposals for the Application Site include the provision of approximately 4.2 hectares of new broadleaved deciduous woodland to the south of the residential development. The woodland should be planted with species typical of composition within other areas of woodland locally, including Gurney's Wood to the southwest and The Coppice to the east of the Application Site. It is recommended that the woodland is principally oak, sweet chestnut *Castanea sativa* and beech *Fagus sylvatica* standards with an understorey of hazel, holly *Ilex aquifolium*, elder, field maple and dogwood. Other species should include hornbeam *Carpinus betulus*, silver birch *Betula pendula* and hawthorn. If ash trees resistant to ash die-back can be sourced commercially then ash should be included in the woodland.
- The landscape plan for the site should include the provision of native species-rich hedgerows. Any new hedgerow planting should include native species only with a minimum of five woody species within each 30m section. Species should comprise approximately 65% hawthorn with 35% being a mix of other native hedging plants such as field maple, blackthorn, hornbeam, hazel, dogwood, wayfaring tree *Viburnum lantana*, guelder rose *Viburnum opulus*, dog rose *Rosa canina*, spindle *Euonymus europaeus* and elder.
- Provision of bat boxes on trees within the site would provide suitable roost sites for a range of bat species present locally. A combination of Schwegler woodcrete boxes 1FF, 2F and 2FN would provide suitable permanent roosting conditions for many of the species recorded in the local area. A number of wooden Kent bat boxes should also be installed which provide more natural roost locations, preferred by many species.
- Swift boxes should be installed on all new dwellings. Integrated boxes should be installed during construction at approximately 5m above ground level and at appropriate locations advised by an ecologist. It is recommended that swift boxes produced by birdbrickhouses <http://www.birdbrickhouses.co.uk/brick-nesting-boxes/nesting-boxes/> are used on dwellings with exposed brickwork as they can be faced with the bricks used in construction. If the building is to be rendered, then Schwegler swift bricks or Ibstock swift bricks would be suitable alternatives.
- House sparrow boxes should be installed on approximately 30% of new dwellings. Integrated boxes produced by birdbrickhouses or Schwegler would be the most appropriate option.
- The rural location of the development site could provide suitable nesting habitat for barn owl. Provision of a nest box for barn owls would offer a safe nesting site overlooking fields adjacent to the site. The box should be installed on a tree or post on the eastern site boundary or on the edge of the woodland to the south of the site.

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## Appendix 1: Site Plans



Figure 1: Phase 1 Habitat Plan







Figure 2: Proposed Development Masterplan





Figure 3: Proposed Development Layout



**Land Opposite Hingham  
Sports Centre, Hingham,  
Norfolk**

**Proposed Development Layout**

## Appendix 2: Photographs





**Photograph 1.**  
View east across Application Site.



**Photograph 2.**  
View north across Application Site.



**Photograph 3.**  
Northern boundary hedgerow (H1).



**Photograph 4.**  
Western boundary Hedgerow (H2).



**Photograph 5.**  
Hedgerow H3.



**Photograph 6.**  
Drainage ditch with tall herbs and nettles on banks.





**Photograph 7.**  
Mature trees on eastern site boundary.



**Photograph 8.**  
Lone infield tree (T1).



**Photograph 9.**  
Trees at location of former pond within the Application Site.



**Photograph 10.**  
Pond 2 located 15m to the south of the Application Site.



**Photograph 11.**  
Horizontal cavity PRF on Tree T2.



**Photograph 12.**  
Cavity formed by knot hole on Tree T2.



## Appendix 3: Legislation

### Relevant Legislation

**Please note:** This section contains key details of legislation and planning policy applicable in England and Wales only (i.e. not including the Isle of Man, Scotland, Northern Ireland, the Republic of Ireland or the Channel Islands) and does not provide full details. It is provided for general guidance only. While every effort has been made to ensure accuracy, this section should not be relied upon as a definitive statement of the law. Further information can be obtained from the relevant authorities.

### International Legislation: Species

#### *EC Habitats Directive*

The aim of the EC Habitats Directive is to protect various species of flora and fauna which are considered rare across Europe. The Directive is transposed into UK law by The Conservation of Habitats and Species Regulations 2010 (as amended) (formerly The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended)) and The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended).

The objective 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 2010 (as amended) (formerly The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended)) and The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended).

### National Legislation: Species

#### *The Wildlife and Countryside Act 1981 (as amended)*

The Wildlife and Countryside Act 1981 (as amended) is a fundamental 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. Various amendments have been made to the Wildlife & Countryside Act 1981 including the Countryside and Rights of Way (CROW) Act (2000).

#### *Other Legislation*

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

- Deer Act 1991
- Countryside and Rights of Way (CROW) Act 2000
- Natural Environment & Rural Communities (NERC) Act 2006
- Protection of Badgers Act 1992
- Wild Mammals (Protection) Act 1996.

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

#### *Conservation of Habitats and Species Regulations 2010 in relation to species*

The Conservation of Habitats and Species Regulations 2010 (as amended) interpret the Birds Directive and Habitats Directive into English and Welsh law.

Explanatory notes relating to species protected under The Conservation of Habitats and Species Regulations 2010 (as amended) (which includes smooth snake, sand lizard, great crested newt and natterjack toad), all bat species, otter, dormouse and some plant species) are given below and consider the case in England only, with Natural England given as the appropriate nature conservation body. **These should be read in conjunction with the relevant species sections that follow.**

- In the 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 2010 (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.
- In order to obtain a European Protected Species Mitigation (EPSM) licence, the application must demonstrate that it meets the following three 'tests':
  - (i) the action(s) is(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.

### **Wild Mammals (Protection) Act 1996**

Under the Wild Mammals (Protection) Act 1996 all wild mammals are protected against intentional acts of cruelty under the above legislation. It is 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 nests or burrows) with the potential to affect any wild mammal in this way, regardless of whether they are legally protected through other conservation legislation or not.

### **Bats**

All species of bat are fully protected under The Conservation of Habitats and Species Regulations 2010 (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:
  - (i) to survive, breed, or reproduce, or to rear or nurture young;
  - (ii) 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

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) through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

Intentional or reckless disturbance (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.

### **Implication for development works**

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), a European Protected Species Mitigation (EPSM) Licence, issued by the relevant countryside agency (e.g. Natural England), will be required. The licence is to allow derogation from the relevant legislation and to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Though there is no current case law the legislation may also be interpreted such that, in certain circumstances, important foraging areas and/or commuting routes can be regarded as being afforded de facto protection, for example, where it can be proven that removal of such features may have a major impact to maintaining the viability of a bat roost<sup>5</sup>.

### **Birds**

With certain exceptions, all wild birds, their nests and eggs are protected under Sections 1-8 of the Wildlife and Countryside Act 1981 (as amended). Among other things, this 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;

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, black redstart, hobby, bittern and kingfisher receive additional special protection under Schedule 1 of the Act and Annex 1 of the European Community Directive on the Conservation of Wild Birds (2009/147/EC). 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.

### **Implication for development works**

Works should be planned to avoid the possibility of killing or injuring any wild bird, or damaging or destroying their nests, in order to avoid breaching the Wildlife and Countryside Act 1981 (as amended). To reduce the likelihood of nest destruction in particular, work should be undertaken outside the main bird breeding season (March to September<sup>6</sup>). Where this is not achievable any areas of habitat suitable for birds must be thoroughly checked for nests prior to vegetation clearance.

Species of bird listed on Schedule 1 are additionally protected against disturbance during the breeding season. It will therefore 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 achievable, it may be possible to maintain an appropriate buffer zone or standoff around the nest.

### **Herpetofauna (Amphibians and Reptiles)**

Through their inclusion on Schedule 2 under The Conservation of Habitats and Species Regulations 2010 (as amended), the sand lizard *Lacerta agilis*, smooth snake *Coronella austriaca*, natterjack toad *Epidalea calamita* and great crested newt *Triturus cristatus* receive full protection. The pool frog *Pelophylax lessonae* is also afforded full protection under the same legislation. Regulation 41 prohibits:

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5 Garland & 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 out of this period (depending on the particular species and geographical location of the site) and as such due care and attention should be given when undertaking potentially disturbing works at any time of year.

- Deliberate killing, injuring or capturing of species listed on Schedule 2
- Deliberate disturbance of any Schedule 2 species as:
  - a) to impair their ability:
    - (i) to survive, breed, or reproduce, or to rear or nurture young;
    - (ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate
  - b) 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
- 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 currently listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (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.

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 Section 9(1) & (5). For these species, it is prohibited to:

- Intentionally (or recklessly in Scotland) kill or injure these species
- 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 Section 9(5) only which affords them protection against:

- Sale, offering or exposing for sale, possession or transport for the purpose of sale.

### **Implication for development works**

A European Protected Species Mitigation (EPSM) Licence issued by the relevant countryside agency (e.g. Natural England) will be required for works liable to affect the breeding sites or resting places of those amphibian and reptile species protected under The Conservation Habitats and Species Regulations 2010 (as amended) (sand lizard, smooth snake, natterjack toad, great crested newt and pool frog). 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 allow derogation 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).

### **Badger**

Badgers *Meles meles* receive protection under The Protection of Badgers Act 1992 which consolidates the previous Badger Acts of 1973 and 1991. Under the Act it is an offence to:

- Wilfully kill, injure, take, or, in England and Wales only, 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 sett or any part thereof
- Intentionally or recklessly disturb a badger when it is occupying a badger sett
- Intentionally or recklessly cause a dog to enter a badger sett
- Sell or offer for sale, possesses or has under his control, a live badger

### **Implication for development works**

A Development Licence is required from the relevant countryside agency (e.g. Natural England, Natural Resources Wales or Scottish Natural Heritage) 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 environment, 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.

### **Invasive Plant Species**

Certain species of plant, including Japanese knotweed *Fallopia japonica*, giant hogweed *Heracleum mantegazzianum* and Himalayan balsam *Impatiens glandulifera* are listed on Part II of Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) in respect to Section 14(2). Such species are generally non-natives whose establishment or spread in the wild may be detrimental to native wildlife. Inclusion on Part II of Schedule 9 therefore makes it an offence to plant or otherwise cause these species to grow in the wild.

### **Implication for development works**

Although it is not an offence to have these plants on your land, it is an offence to cause these species to grow in the wild. Therefore, if they are present on site and development activities (for example movement of spoil, disposal of cut waste or vehicular movements) have the potential to cause the further spread of these species to new areas, it will be necessary to ensure appropriate measures to prevent this prior to the commencement of works.

## **International and National Legislation: Habitats**

### **Statutory Designations: International**

#### **Special Protection Areas (SPAs) and Special Areas of Conservation (SACs)**

Special Protection Areas (SPAs), together with Special Areas of Conservation (SACs) form the Natura 2000 network. The Government is obliged to identify and classify SPAs under the EC Birds Directive (Council Directive 2009/147/EC (formerly 79/409/EEC)) on the Conservation of Wild Birds).

- **Special Protection Areas** 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 2010 (as amended). The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended) provide a mechanism for the designation and protection of SPAs in UK offshore waters (from 12-200 nm).
- **Special Areas of Conservation** 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. The Government is obliged to identify and designate SACs under the EC Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora). SACs in terrestrial areas and territorial marine waters out to 12 nm are protected under The Conservation of Habitats & Species Regulations 2010 (as amended). The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended) provide a mechanism for the designation and protection of SACs in UK offshore waters (from 12-200 nm).

### **Ramsar sites**

Ramsar sites are designated under the Convention on Wetlands of International Importance. The Convention provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources, in particular it recognises 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 (SSSIs) 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 in England and Wales highlighting the special status of Ramsar sites. This effectively extends the level of protection to that afforded to sites which have been designated under the EC Birds and Habitats Directives as part of the Natura 2000 network (e.g. SACs & SPAs).

### ***Statutory Designations: National***

#### ***Sites of Special Scientific Interest (SSSIs) and National Nature Reserves (NNR)***

Sites of Special Scientific Interest are nationally important areas of special scientific interest, designated for their flora, fauna, or geological or physiographical features, under the National Sites and Access to the Countryside Act 1949 and latterly the Wildlife & Countryside Act 1981 (as amended). National Nature Reserves are declared by the countryside agencies under the same legislation. As well as underpinning other national designations the system also provides statutory protection for terrestrial and coastal sites which are important within a European context (Natura 2000 network) and globally (such as Wetlands of International Importance). See subsequent sections for details of these designations. Improved provisions for the protection and management of SSSIs have been introduced by the Countryside and Rights of Way Act 2000 (in England and Wales).

### ***Statutory Designations: County***

#### ***Local Nature Reserves (LNRs)***

LNRs are statutory sites of lower conservation value designated under national legislation. LNR designation is 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.

### ***Non-Statutory Designations***

Non-statutory sites designated under local legislation are areas considered to be of local conservation interest. These may be designated by local authorities as ***Local Wildlife Sites (LWS)***, also known as ***County Wildlife Sites (CWS)***, ***Local Nature Conservation Sites (LNCS)***, ***Sites of Biological Importance (SBIs)*** or ***Sites of Importance for Nature Conservation (SINCs)***. may vary between counties.

Together with the statutory designations, these are defined in local and structure plans under the Town and Country Planning system and are a material consideration when planning applications are being determined. The criteria for designation and the level of protection afforded to these sites through local planning policies and development frameworks may vary between counties.

### ***National Planning Policy***

#### ***The National Planning Policy Framework (NPPF)***

The National Planning Policy Framework (NPPF) replaced Planning Policy Statement (PPS9) in April 2012 as the key national planning policy concerning nature conservation. The NPPF emphasises the need for suitable development and specifies the need for protection of designated sites and priority habitats and priority species. An emphasis is also made for the need for ecological networks via preservation, restoration and re-creation. The protection and recovery of priority species – those listed as UK Biodiversity Action Plan priority species – is also listed as a requirement of planning policy. The NPPF was updated in February 2019 and now includes a presumption in favour of providing a **net gain** in biodiversity as opposed to a 'no net loss' as was previously the policy.

In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that:

- Designated sites are protected from adverse harm;
- Planning permission is refused where significant harm from a development cannot be avoided, adequately mitigated, or, as a last resort, compensated for;

- Opportunities to incorporate biodiversity in and around developments are required and a net gain in biodiversity through enhancement during development is now expected;
- Planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland; and
- Protection should be given to biodiversity within areas designated for their landscape value to include National Parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to landscape and scenic beauty.

#### *The Natural Environment and Rural Communities (NERC) Act 2006, (as amended)*

The Natural Environment and Rural Communities (NERC) Act came into force on 1st October 2006. Section 40 of the Act requires all public bodies to have regard to biodiversity conservation when carrying out their functions. The Act includes a list of habitats and species of 'principal importance for the conservation of biodiversity' in England. They are referred to in this report as **Species of Principal Importance and Habitats** or **Principal Importance**. Local Authorities are required to consider the needs of these habitats and species when making decisions such as on planning application. A developer must show that their protection has been adequately addressed within a development proposal.

#### *Local Planning Authority's planning policy*

The Local Planning Authority has policies relating to biodiversity conservation. For details, please see the planning website for the relevant authority.

#### *Regional and Local BAPs*

Many local authorities in the UK have also produced a local Biodiversity Action Plan (LBAP) at the County or District level. For details, please see the planning website for the relevant authority.

#### *The Hedgerow Regulations 1997*

The Hedgerow Regulations 1997 are intended to protect 'important' countryside hedgerows from destruction or damage by controlling their removal through a system of notification. A hedgerow is considered important if it:

- has existed for 30 years or more; and
- satisfies at least one of the criteria listed in Part II of Schedule 1 of the Regulations.

Schedule 1 criteria are related to the presence of protected plants and animals, or a high diversity of woody species and other qualifying features, e.g. connectivity to other hedgerows, woodlands or ponds, and the presence of standard trees.

Under the Regulations, it is a criminal offence to remove or destroy certain hedgerows without permission from the local planning authority. Countryside hedgerows are defined as those on or adjoining:

- common land;
- village greens;
- SSSIs (including all NNRs, SPAs and SACs);
- LNRs, and;
- land used for agriculture, forestry or the breeding or keeping of horses, ponies or donkeys are covered by these regulations.

Garden hedgerows, e.g. within or marking the boundary of the curtilage of a dwelling-house, are exempt from The Hedgerow Regulations.