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PRELIMINARY ECOLOGICAL APPRAISAL

At

**Land off Cropper Road,
Blackpool
Lancashire
FY4 5LB**

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A handwritten signature in black ink, appearing to read 'Toby Hart', is positioned above the date and reference information.

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EXECUTIVE SUMMARY

United Environmental Services Ltd (UES) was commissioned to carry out a baseline ecological survey of a parcel of land off Cropper Road, Blackpool, Lancashire. A desk study and preliminary ecological appraisal (PEA) survey were undertaken on 19th July 2021, including searches using the Multi Agency Geographic Information Centre (MAGIC) and Lancashire Environment Record Network (LERN) records centre.

The PEA provides an assessment of potential ecological impacts associated with the development of the land parcel. The development proposals include the construction of 65 residential units with associated gardens, driveways and an access road. The development proposals also include the construction of four commercial units; one convenience store, one office / store and two retail units with associated car parking and access roads.

The land parcel has an area of approximately 1.9ha and contains areas of hardstanding, buildings, improved grassland, poor semi-improved grassland, bare ground, tall ruderal, dense scrub, ephemeral short perennial vegetation, hedgerows and scattered trees. There is also a dry ditch located immediately adjacent to the north-western site boundary.

The results of the survey combined with the results of the desk study have highlighted the requirement for further work in relation to the following habitats and species:

- **Amphibians and reptiles** – reasonable avoidance measures (RAMs) to be implemented during the construction phase of the development.
- **Bats** – Trees and hedgerows, in particular those forming a linear feature across the site, should be retained and protected where possible. When installing any new lighting, the external lighting guidance provided within this report should be followed and light spillage onto the bat boxes, hedgerows and retained tree lines must be minimised.
- **Breeding birds** – demolition works, site clearance, tree felling, arboricultural works and vegetation clearance are to take place outside of the breeding bird season and should not be undertaken from March to August inclusive. If not possible and works need to take place during this period, a targeted nest survey is to be undertaken or an ecological clerk of works appointed to oversee the works.
- **Hedgerows and trees** – to be retained where possible, or replaced as part of a detailed landscaping scheme. Generic issues relating to root protection areas (RPAs).
- **Invasive species** – If the areas containing invasive species are to be worked in, the *Cotoneaster* plants will need to be subject to control measures prior to the start of works on site and eradicated as part of the development in order to ensure that they do not spread across the site or onto adjacent areas.

Mitigation measures, as detailed in section 4, should be adhered to, which may in some cases negate the need for further survey work.

The development also presents an opportunity to improve the habitats on site for wildlife, such as bats and birds. The inclusion of nest boxes and bat boxes will provide suitable nesting and roosting features in the long term.



This report should be read with appendices 1 to 8, which include results of the desk study, GIS phase 1 habitat mapping, photographs of site and relevant statutory guidance.

1 INTRODUCTION

1.1 Author, surveyors, qualifications and scope of study area

This report is written by Emily Clark BSc PGdip ACIEEM, UES Senior Ecologist. Emily holds a level 4 Botanical Society for Britain and Ireland (BSBI) field identification skills certificate (FISC), which certifies her as competent to undertake phase 1 habitat and national vegetation classification (NVC) surveys. Emily is also licensed by Natural England to disturb, take and handle all species of bats under licence number 2019-39350-CLS-CLS (level 2) and great crested newts (GCNs) *Triturus cristatus* under licence number 2017-32271-CLS-CLS (CL08).

Other surveyors include:

- Amanda Beck, UES Assistant Ecologist. Amanda is licensed by Natural England to survey all species of bats by observation using an artificial light under licence number 2018-38295-CLS-CLS (level 1) and to disturb, take and handle GCNs under licence number 2019- 42404-CLS-CLS (CL09).

The report provides an assessment of the potential ecological impacts associated with the proposed development of a parcel of land off Cropper Road, Blackpool.

The zone of influence considered within the scope of the survey includes all land within the red line boundary. Where relevant, other ecological resources, receptors and important habitats which are spatially separate from the site are considered.

1.2 Survey objectives

UES was commissioned in June 2021 to conduct a PEA of the proposed development site. This was completed in order to:

- Establish baseline conditions and determine the importance of ecological features present or potentially present within the survey area
- Identify key ecological constraints to the project
- Make recommendations for design options to avoid significant effects on important ecological resources at an early stage of development planning
- Identify potential requirement for further surveys for nationally or internationally protected species which may be present on site
- Identify potential requirement for mitigation or compensation, including measures that may be required based on further surveys

1.3 Proposed development

The development proposals include the construction of 65 residential units with associated gardens, driveways and an access road. The development proposals also include the construction of four commercial units; one convenience store, one office / stores and two retail units with associated car parking and access roads.



1.4 Structure of the report

This report is a baseline appraisal that forms the basis for further ecological surveys and Environmental Impact Assessments (EIA) if required. In the majority of cases the preliminary ecological assessment will not provide all the ecological data required by the Local Planning Authority to determine an application, especially in the event that protected habitat or species issues are present or likely.

This report should be read with appendices 1 to 8, which include results of the desk study, GIS phase 1 habitat mapping, photographs of site and relevant statutory guidance.

2 METHODOLOGY

This PEA comprises a desk study and a field survey. The desk study is conducted in order to collate ecological information on species and / or habitats of interest that may be present. The field survey is conducted in order to assess the habitats and their importance, both on site and in the context of their wider surroundings.

2.1 Desk study

The following resources were used to inform the desk study:

- National – Using the UK government’s MAGIC website, statutorily protected sites were scoped to a distance of 10km from the application site.
- Local – A record search of designated sites and protected or otherwise notable species within 2km of the proposed development site was undertaken through LERN.

2.2 Field survey

An ecological walkover survey was carried out on 19th July 2021 by Emily Clark and Amanda Beck. The purpose of the survey was to identify, record and map dominant habitats types within the development area and highlight any further species surveys that may be required based on the quality of those habitats. When conducting the surveys particular focus was concentrated on the following species and habitat features:

- Amphibians
- Reptiles
- Badger
- Bats
- Hazel dormouse
- Birds
- Trees
- Hedgerows
- Plant communities
- Invasive species
- Otter
- Water vole
- White-clawed crayfish

The habitats were assessed by using the phase 1 habitat survey technique, which is a system for environmental audit widely used within the environmental consultancy field. The survey was undertaken in accordance with the methodology in the ‘Handbook for phase 1 habitat survey - A technique for environmental audit’ (JNCC, 2010) as recommended by Natural England, and in the “Guidelines for Preliminary Ecological Appraisal” (CIEEM, 2017).

The survey area encompasses all of the land within the development footprint and the land to a distance of 30m outside it where accessible. In line with recognised guidelines, ponds were also scoped to a distance of 500m (250m radius from the survey area).

The phase 1 habitat survey methodology was extended to record any signs of habitats suitable to support protected / invasive species and any incidental observations of other noteworthy species.



2.2.1 Survey limitations

No constraints were encountered during the survey. The survey was undertaken at an appropriate time of year to enable sufficient vegetative identification and a robust habitat assessment.

2.3 GCN Impact Assessment (IA)

2.3.1 Habitat suitability index (HSI)

A site visit was undertaken on 19th July 2021 by Emily Clark and Amanda Beck. All ponds and aquatic features on site and within 250m of the site boundary were assessed for their potential to support GCNs using the HSI. The HSI is a tool used to provide a numerical indication of the quality of a waterbody in terms of GCN breeding and associated habitat requirements on a scale of 0-1 (0 indicating unsuitable habitat, 1 representing optimal habitat).

HSI scores incorporate ten Suitability Indices (SIs), all of which are factors thought to affect GCNs, namely:

SI 1: Site location	SI 6: Waterfowl presence
SI 2: Size of pond	SI 7: Fish presence
SI 3: Pond permanence	SI 8: Number of ponds within 1km
SI 4: Water quality	SI 9: Terrestrial habitat
SI 5: Perimeter shading	SI 10: Macrophyte cover

In some cases, a net may be used to assess certain SIs, such as water quality. Once a measurement or category has been given for each SI this can then be converted to a figure between 0 and 1 for use in the HSI calculation. This figure is either translated from an assigned category or measurement or read from a graph in the case of a percentage or number.

The HSI is then calculated from the following formula:

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

This will give a final HSI result between 0 and 1, providing a measure of habitat suitability for GCN.

The information gathered from the survey was used to provide a likelihood of GCNs and other amphibians being present in the area, in both aquatic and terrestrial habitats.

The proposed development, based on the plans provided, was also assessed for the potential to cause harm to GCNs (if present) using the Natural England Rapid Risk Assessment Tool.

All ponds were noted on the pond plan (Appendix 3).

2.3.2 Survey limitations

One pond (Pond 2) could not be accessed as it was located on third party land and access was not granted. However, the pond was viewed using aerial imagery (dated 27th May 2020) and sufficient information was gathered to make a robust assessment as to the potential for the pond to support GCNs.

3 RESULTS

3.1 Desk study

A desk study was conducted for the proposed development site and surrounding area. Statutorily protected sites were scoped to a distance of 10km. Further results of the desk study can be found at Appendix 1 – Desk study.

3.1.1 Protected sites

There are three non-statutorily protected sites within 2km of the proposed development site:

- Chapel Road Field BHS¹
*The site is located approximately 1km north-west of the proposed development site boundary and comprises a length of hedgerow and adjoining field edge alongside Chapel Road. The site supports a population of common meadow-rue *Thalictrum flavum*, a scarce species in Lancashire and the Fylde and the only known extant population within Blackpool. The population of common meadow-rue occurs along the field side of the boundary hedge and a little way into the field. Where there is no hedge at the bend in the road the population extends through the boundary fence into the grassy verge. The hedgerow is dominated by hawthorn *Crataegus monogyna* with some elder *Sambucus nigra*.*
- Lytham Moss BHS
*The site is located approximately 905m south of the proposed development site boundary and comprises approximately 283 hectares of farmland on the Lytham Moss between Heyhouses, Long Wood and Peel. The site is of ornithological importance as a winter feeding ground for flocks of pink-footed geese *Anser brachyrhynchus* and whooper swans *Cygnus cygnus* with bird numbers exceeding 0.5% of the British wintering population.*
- Westby Clay Pit BHS
*The site is located approximately 1.6km south-east of the proposed development site boundary and comprises part of a former clay pit which has colonised naturally since working ceased over 40 years ago. A mosaic of semi-natural habitats is present including a number of ponds with associated marsh, grasslands, scrub and hedgerows. Although the area of wildlife interest was formerly more extensive, the remaining mosaic of aquatic and terrestrial habitats is valuable for amphibians, dragonflies, damselflies and butterflies as well as for a diversity of plant species. The principal interest of the site is the regular presence of a good population of GCNs, with most of the ponds being suitable for breeding. Small populations of common frog *Rana temporaria* and smooth newt *Lissotriton vulgaris* are also present. Common toad *Bufo bufo* and palmate newt *Lissotriton helveticus* have bred here until recently. Brackish water-crowfoot *Ranunculus baudotii*, a species listed in the Provisional Lancashire Red Data List of Vascular Plants, has also been recorded at the site.*

There are no statutorily protected sites within 2km of the proposed development site. However, the proposed development site lies within a SSSI Impact Risk Zone (IRZ) within which Natural England request that they are consulted on residential developments of 10 units or more.

¹ Biological Heritage Site



There are ten statutorily protected sites (designated for ecological reasons) within 2 – 10km of site:

- Lytham St Annes LNR²
- Lytham St Anne's Dunes SSSI³
- Marton Mere LNR
- Marton Mere, Blackpool SSSI
- Morecambe Bay Ramsar
- Ribble Estuary NNR⁴
- Ribble Estuary SSSI
- Ribble & Alt Estuaries Ramsar
- Ribble & Alt Estuaries SPA⁵
- Wyre Estuary SSSI

3.1.2 Protected species

The following records of protected or otherwise notable species were highlighted by the environmental records search:

- Amphibians: 35 records of GCNs were returned from within 2km of the proposed development site. The closest GCN record is located approximately 1.4km north-east of the proposed development boundary and was recorded in 1992. The closest recent (i.e. within the last 15 years) GCN record is located approximately 1.5km south-east and was recorded in 2019, within Westby Clay Pit BHS. Records for common toad, common frog and smooth newt were also returned. The closest amphibian record was for common frog, located approximately 30m north of the site and was recorded in 2019. Twenty-three of the records returned for GCN were recorded within Westby Clay Pit BHS.
- Badgers: no records for badger *Meles meles* were returned within 2km of the proposed development site.
- Bats: four records for bats were returned within 2km of the proposed development site, three field records and one roost. All records were for common pipistrelle *Pipistrellus pipistrellus* bats. The closest record was recorded using a bat detector in 2014 approximately 525m north of the proposed development site. The record of a roost, with a count of 113 common pipistrelle bats in 2015, is located approximately 1.1km north-east of the proposed development site.
- Birds: various species, including several NERC section 41 and Wildlife and Countryside Act 1981 Schedule 1 species. The closest of which is curlew *Numenius arquata* (field record) and lapwing *Vanellus vanellus* (confirmed breeding) which were recorded within the adjacent fields, to the north of the proposed development site.
- Brown hare: 29 records of brown hare *Lepus europaeus* were returned from within 2km of the proposed development site. The closest record was located approximately 260m south-east of the proposed development site.
- Hazel dormouse: no records of hazel dormouse *Muscardinus avellanarius* were returned from within 2km of the proposed development site.

² Local Nature Reserve

³ Site of Special Scientific Interest

⁴ National Nature Reserve

⁵ Special Protection Area

- Hedgehog: no records of hedgehog *Erinaceus europaeus* were returned from within 2km of the proposed development sites.
- Otter: three records for otter *Lutra lutra* were returned from within 2km of the proposed development site. The closest record is located approximately 525m south of the proposed development site and was recorded in 2012.
- Reptiles: no records for reptiles were returned from within 2km of the proposed development site.
- Water vole: twelve records of water vole *Arvicola amphibius* were returned from within 2km of the proposed development site. The closest record is located approximately 1km south of the proposed development site and was recorded in 2010.
- White clawed-crayfish: no records of white-clawed crayfish *Austropotamobius pallipes* were returned from within 2km of the proposed development site.

3.2 Baseline conditions – Habitats

The results of the PEA are also shown on the accompanying map at Appendix 2 – Phase 1 Habitat Plan. Habitats are colour-coded in accordance with the phase 1 standard.

The local area to the north, south and west is predominantly arable fields, intersected by drainage channels. To the east is urban with a number of new housing developments been constructed and commercial business parks. The following principle habitat types were characterised on site:

- A2.1 Dense scrub
- A3.1 Broadleaved scattered trees
- A3.2 Coniferous scattered trees
- B4 Improved grassland
- B6 Poor semi-improved grassland
- C3.1 Tall ruderal
- J1.2 Amenity grassland
- J1.3 Ephemeral / short perennial
- J1.4 Introduced shrub
- J2.1.2 Intact hedge – species-poor
- J2.4 Fence
- J2.5 Wall
- J2.6 Dry ditch
- J3.5 Buildings
- J4 Bare ground
- J5.1 Hardstanding
- J5.2 Other habitat (garden centre and marquee)

3.2.1 A2.1 Dense scrub

On site, there are two small areas of dense scrub. One is located along the north-eastern site boundary, adjacent Cropper Road, which is dominated by bramble *Rubus fruticosus agg.*, see Appendix 5 – Photographs, Photograph 1.

The second area is located along the south-western site boundary where it succeeds from tall ruderal into dense scrub (Photographs 2 and 3). Species present include: bramble, mugwort *Artemisia vulgaris*, teasel *Dipsacus fullonum*, hedge bindweed *Calystegia sepium*, cleavers *Galium aparine*, broad-leaved dock *Rumex obtusifolius*, stinging nettle *Urtica dioica* and creeping thistle *Cirsium arvense*.

3.2.2 A3.1 Broadleaved scattered trees

There are a number of trees scattered on and around the site. Along the northern site boundary there are approximately thirty Lombardy poplar *Populus nigra 'Italica'* trees. The trees are mature and have been planted close together. Leyland cypress *Cupressus × leylandii* and dogwood *Cornus sanguinea* are also planted within the trees, creating a dense understorey, see Photograph 4.

Along the south-western site boundary there are approximately twelve lime *Tilia* sp. trees present, all of which are mature (Photograph 5). There are also a number of mature trees planted immediately adjacent to the garden centre within the centre of the site, including lime and cherry *Prunus* sp. (Photograph 6). There were also a number of amenity tree species planted near the buildings on site, including poplar *Populus* sp. and cherry.

3.2.3 A3.2 Coniferous scattered trees

There are a number of semi-mature Leyland cypress trees planted within the centre of the site, immediately east of the stables block (Photograph 7). There are also a number of Leyland cypress trees planted along the south-western site boundary and northern site boundary.

3.2.4 B4 Improved grassland

There are five fields located within the southern section of the site, three of the fields are improved grassland pasture which have been heavily grazed by horses, resulting in a very short sward (Photograph 8). Species present include perennial ryegrass *Lolium perenne*, cock's-foot *Dactylis glomerata*, white clover *Trifolium repens*, common dandelion *Taraxacum officinale*, ribwort plantain *Plantago lanceolata*, silverweed *Argentina anserina*, annual meadow grass *Poa annua*, daisy *Bellis perennis*, common ragwort *Jacobaea vulgaris*, selfheal *Prunella vulgaris*, spear thistle *Cirsium vulgare*, and creeping buttercup *Ranunculus repens*.

3.2.5 B6 Species-poor, semi-improved grassland

One of the fields within the southern section of the site has experienced a lower intensity of grazing and has a longer sward than the other grassland areas on site. As such, it can be considered to be species-poor semi-improved grassland. The species are similar to those found in the improved grassland areas, but there is a greater diversity of species here and the area shows greater heterogeneity, with patches succeeding into ruderal and scrub habitats (Photograph 9). Species present include: cocksfoot, perennial rye grass, soft brome *Bromus hordeaceus*, common ragwort, nipplewort *Lapsana communis*, stinging nettle, foxglove *Digitalis purpurea*, ribwort plantain, false oat grass *Arrhenatherum elatius*, broadleaved dock, creeping thistle, field bindweed *Convolvulus arvensis*, black medic *Medicago lupulina*, Yorkshire fog *Holcus lanatus*, common groundsel *Senecio vulgaris*, common mouse-ear

Cerastium fontanum, chickweed *Stellaria media*, selfheal, white clover, silverweed, spear thistle, dove's-foot cranesbill *Geranium molle*, willowherb species *Epilobium* sp., scarlet pimpernel *Anagallis arvensis*, common field speedwell *Veronica persica*, field forget-me-not *Myosotis arvensis*, sweet vernal grass *Anthoxanthum odoratum*, creeping buttercup and meadow foxtail *Alopecurus pratensis*.

There are also two small strips of species-poor semi-improved grassland adjacent to the hardstanding track within the south-eastern section of site, which have not been subject to grazing or mowing. Species present are similar to those listed above but also include field horsetail *Equisetum arvense*, evening primrose *Oenothera biennis*, bramble, pendulous sedge *Carex pendula* and common toadflax *Linaria vulgaris*.

The final area of species-poor semi-improved grassland is located within the western section of the site (Photograph 10). The species present are similar to those listed above but the area is relatively damp with small areas of standing water (see Photographs 11 and 12) and areas which are succeeding into ruderal and scrub habitat. Additional species present include rough meadow grass *Poa trivialis* and hoary willowherb *Epilobium parviflorum*.

3.2.6 C3.1 Tall ruderal

There are three areas of tall ruderal on site, two are located within the north-western section of the site while one is in a large field located in the eastern section of the site.

The two small areas within the north-western section of the site are relatively disturbed, with areas of bare ground, rubble and discarded materials present, see Photographs 13 and 14. The area has small areas of ephemeral / short perennial vegetation, but the majority of the area has been colonised by tall ruderal. There are also a number of earth bunds which have been colonised by tall ruderal species, particularly stinging nettle and creeping thistle (Photograph 15). Other species present include buddleja *Buddleja davidii*, creeping bent *Agrostis stolonifera*, broadleaved plantain *Plantago major*, hop trefoil *Trifolium campestre*, mugwort, white clover, ribbed melilot *Melilotus officinalis*, creeping buttercup, bramble, Yorkshire fog, rosebay willowherb *Chamaenerion angustifolium*, pineappleweed *Matricaria discoidea*, scentless mayweed *Tripleurospermum inodorum*, perennial rye grass, nipplewort, hedge bindweed, false oat grass, field horsetail, colt's-foot *Tussilago farfara*, smooth sow thistle *Sonchus oleraceus*, dogwood, willow species *Salix* sp., red dead nettle *Lamium purpureum*, broadleaved dock, teasel, evening primrose, pendulous sedge, hoary willowherb, redshank *Persicaria maculosa* and fat hen *Chenopodium album*.

The area of tall ruderal located within the eastern section of the site is extremely overgrown and the most frequent species present is stinging nettle and great willowherb *Epilobium hirsutum*. Other species present include spear thistle, willow species saplings, common ragwort, rosebay willowherb, broadleaved dock, Yorkshire fog, field horsetail and creeping bent.

3.2.7 J1.2 Amenity grassland

There is one small section of site, within the northern corner, which comprises amenity grassland which is subject to a high intensity mowing regime (see Photograph 16). Species present include annual meadow grass, perennial rye grass, red fescue, Yorkshire fog, white clover, creeping buttercup, dandelion, daisy and ribwort plantain.

3.2.8 J1.3 Ephemeral Short perennial

There are several areas of bare ground or hardstanding on site where ephemeral short perennial species have colonised (Photographs 17 and 18). Species present include; red shank, bush vetch *Vicia cracca*, colt's-foot, nipplewort, common poppy *Papaver rhoeas*, pineappleweed, common knotgrass *Polygonum aviculare*, perennial rye grass, ribwort plantain, smooth sow thistle, Yorkshire fog, lesser stitchwort *Stellaria graminea*, stinging nettle, creeping buttercup, scentless mayweed, common ragwort and mugwort.

3.2.9 J1.4 Introduced shrub

There are two small areas which are planted with ornamental shrubs in the north-eastern corner of the site (Photograph 5). Species present include bamboo *Bambusa species*, evening primrose, rose species *Rosa sp.* and Leyland cypress.

3.2.10 J2.1.2 Intact hedge - species-poor

There are two hedges on site, both of which are species-poor.

Hedge 1 is located immediately west of Cropper Road and is an amenity trimmed hedge (Photograph 19). It measures approximately 2m high and 1.5m wide. Hawthorn is dominant within the hedge. The only other woody species recorded was a rose species. Field bindweed, stinging nettle, buddleja, hedge woundwort *Stachys sylvatica* and garlic mustard *Alliaria petiolata* were recorded within or at the base of the hedge

Hedge 2 is located within the northern corner of the site and is located immediately adjacent to the site entrance (Photograph 20). The hedge is also a trimmed amenity hedge and measures approximately 1m high and 1m wide, species present include cherry laurel *Prunus laurocerasus* and ornamental beech species *Fagus sp.*

3.2.11 J2.4 Fence

There are a number of fences on site, which demarcate the field boundaries and site boundaries. The majority of the fences are constructed from wooden posts and wooden panels. However, the field boundary fences are constructed from wooden posts and metal wire.

3.2.12 J2.5 Wall

There is one wall on site, which is constructed from brick and breezeblock. The wall is in excellent condition with no cracks or crevices present.

3.2.13 J2.6 Dry ditch

There is one ditch which runs immediately adjacent to the north-western site boundary. The ditch was dry at the time of the survey. The banks of the ditch were heavily vegetated with bramble scrub, but soft rush *Juncus effusus* and reed canary-grass *Phalaris arundinacea* were

recorded within the channel. A detailed survey of the ditch was not possible as it is located on third party land.

3.2.14 J3.5 Buildings

There are a number of buildings on site, including one large café, a garden centre, corrugated barn, stables and numerous single-storey prefabricated buildings. A bat scoping survey and subsequent presence / absence surveys (where necessary) have been undertaken. Buildings were inspected internally (where possible) and externally for any features that would provide potential roosting features for bats or would allow bat or bird access into the buildings. For detailed building descriptions and further information see the UES bat presence / absence survey report for the site (reference: UES03391/04).

3.2.15 J4 Bare ground

There are several areas of bare ground on site. The area to the south of the stables is regularly disturbed by vehicles, while the fenced field has been poached by horses (Photograph 21). A small number of ephemeral / short perennial species (described in section 3.2.8) were recorded within the field.

3.2.16 J5.1 Hardstanding

A large proportion of the site comprises hardstanding. The north-eastern section of the site comprises a gravel car park (Photograph 22) while the areas around the buildings are a mixture of paving, gravel and tarmac.

3.2.17 J5.2 Other habitat (garden centre)

There is a large garden centre on site which has an indoor section constructed from corrugated sheet plastic and an outdoor section with areas of hardstanding and introduced shrubs in pots (Photograph 23). Due to the large area of the garden centre it was considered appropriate to map it separately.

3.3 Baseline conditions – Protected species or resources

As part of the PEA, specific observations of wildlife were also recorded. Wildlife observations focused on protected species, invasive species or species of conservation concern. Habitats with potential to support protected species were noted with a view to follow up surveys if required.

3.3.1 Amphibians

Numerous records for GCNs were returned within 2km of the proposed development site, the closest recent record was located approximately 1.5km south-east and was recorded in 2019, within Westby Clay Pit BHS.



There is one mapped pond on site and two mapped ponds within 250m of the proposed development site, see Appendix 3 – Pond Plan.

The onsite pond is no longer present, and no evidence of a pond (such as aquatic or marginal vegetation) was recorded on site in its apparent location.

Pond 1 is located approximately 85m west of the proposed development site boundary and is located on third party land. Access was granted to survey the pond as part of the walkover survey. The pond measures approximately 950m² and was dry at the time of the survey, see Photographs 24 and 25. However, a number of emergent and marginal plant species were recorded within the pond, suggesting that it holds water for some part of the year. Species present within and along the margins of the pond include; duckweed *Lemna minor*, soft rush, pendulous sedge, common bulrush *Typha latifolia*, curled dock *Rumex crispus*, common spike-rush *Eleocharis palustris*, common club rush *Schoenoplectus lacustris*, yellow flag iris *Iris pseudacorus*, hard rush *Juncus inflexus*, marsh foxtail *Alopecurus geniculatus*, jointed rush *Juncus articulatus*, creeping bent and great willowherb. A number of willow trees have started to encroach and become established within the pond. As the pond was dry at the time of the survey (conducted in mid-July), it is considered reasonably unlikely to support breeding GCNs. Furthermore, the pond was subject to an environmental DNA (eDNA) survey in 2016 by ERAP consultant ecologists for a separate outline planning application in support of a residential development of up to 350 dwellings (planning reference 17/0779). The eDNA survey returned a negative result for GCN DNA, see ERAP (December 2016) Ecological survey and Assessment (including a licensed bat survey) for Cropper Road, Westby-With-Plumpton, Blackpool, FY4 5LB (report reference 2015_206) for further information. Given this historical survey data, the fact the pond was dry at the time of survey, in addition to the absence of GCN records within 500m of the pond, it is considered reasonably unlikely that GCNs are present within the pond.

Pond 2 is located approximately 215m east of the proposed development site and could not be accessed as part of the walkover survey. However, the pond was viewed using aerial imagery dated 27th May 2020, and appears to be dry. Furthermore, the pond is relatively isolated from suitable surrounding habitat as it is located within a garden, surrounded by amenity grassland. A new housing development has been built immediately east of the pond and the B5410 is located 35m north-west of the pond and will act as a barrier to movement between the pond and the current development area.

The habitats within the proposed development area comprise buildings, improved grassland, hardstanding, bare ground, poor semi-improved grassland, tall ruderal and dense scrub. The areas of hardstanding, buildings and improved grassland are broadly unsuitable for use by amphibians as they provide very limited and poor-quality foraging, commuting and hibernating opportunities. However, the areas of poor semi-improved grassland, dense scrub and tall ruderal within the western section of the site are broadly suitable for use by amphibians, and will provide some foraging and commuting opportunities. Furthermore, the areas of rubble, discarded materials and root systems of broadleaved trees will provide hibernating opportunities.

The following rapid risk assessment tool has been developed by Natural England in order to establish whether it is necessary to apply for a licence. It assumes that the Pond 2 is a suitable GCN breeding pond, which may not be the case.

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)	No effect	0
Land 100-250m from any breeding pond(s)	0.1 - 0.5 ha lost or damaged	0.1
Land >250m from any breeding pond(s)	1 - 5 ha lost or damaged	0.04
Individual great crested newts	No effect	0
	Maximum:	0.1
Rapid risk assessment result:	GREEN: OFFENCE HIGHLY UNLIKELY	

"Green: offence highly unlikely" indicates that the development activities are of such a type, scale and location that it is highly unlikely any offence would be committed should the development proceed. Therefore, no licence would be required. However, bearing in mind that this is a generic assessment, you should carefully examine your specific plans to ensure this is a sound conclusion, and take precautions (see **Non-licensed avoidance measures tool**) to avoid offences if appropriate. It is likely that any residual offences would have negligible impact on conservation status, and enforcement of such breaches is unlikely to be in the public interest.

The rapid risk assessment considers an offence is highly unlikely due to the size of the development area and proximity to Pond 2. Therefore, it is considered that potential impacts on GCNs are unlikely. However, the development area still provides opportunities for other common amphibian species.

3.3.2 Reptiles

No records for reptiles were returned from within 2km of the proposed development site. The habitats within the western section of the site, such as tall ruderal, dense scrub, ephemeral / short perennial and poor semi-improved grassland will provide some foraging and commuting opportunities for reptiles. Furthermore, the discarded materials and earth bunds (see Photograph 13, 14 and 15) covered with tall ruderal vegetation will provide refugia and basking opportunities for reptiles. However, these areas are relatively small, and the other habitats present on site (hardstanding, bare ground, buildings) are considered unsuitable for reptiles. Furthermore, no evidence of reptiles was recorded on site, despite the survey being undertaken at an appropriate time of year, in combination with a thorough refugia search. Habitats to the west of the site are more suitable for reptiles with large areas of bare ground, ephemeral short perennial and tall ruderal vegetation, but the area is relatively isolated from the wider landscape, due to the presence of large improved fields and surrounding residential developments.

Taking into account the small area of suitable habitats, absence of records within 2km and lack of evidence of reptiles on site, it is considered reasonably unlikely that reptiles will be present on site and the need for further surveys is not considered necessary. However, it is recommended that RAMs are implemented within the small areas of suitable habitat, to reduce any residual risk to reptiles to negligible levels.

3.3.3 Badger

All land within 30m of the site boundary was accessed and no setts or badger field signs were recorded during the walkover survey. Furthermore, no records for badgers were returned within 2km of the proposed development site.

The site contains areas of tall ruderal, improved grassland, poor semi-improved grassland and scrub habitats. Whilst these habitats are broadly suitable to support badgers, the majority of site comprises hardstanding and buildings, which is unsuitable for badgers. Habitats in the immediate vicinity will provide some foraging, commuting and sett building opportunities for badger, with areas of improved fields with numerous field ditches, areas of tree and hedged-lined fields.

However, taking into account the absence of evidence of badgers on site and absence of records within 2km, it is considered reasonably unlikely that badgers are present on site.

3.3.4 Bats

There are numerous buildings present on site, all of which were subject to a bat scoping survey at the same time as this PEA survey. Buildings were inspected internally (where possible) and externally for any features that would provide potential roosting features for bats. For the purposes of the combined bat scoping and bat presence / absence survey report, the buildings have been numbered and split into a total of 17 buildings.

Three buildings on site were assessed as having low potential to support roosting bats and were subject to one bat presence / absence survey on 3rd August 2021. No bats were found to be roosting within the three buildings on site, therefore no further mitigation or compensation measures are required with regards to roosting bats.

All other buildings on site are considered to have negligible potential to support roosting bats and do not require any further surveys. Further information, building descriptions and photographs are available in the combined bat scoping and presence / absence survey report (reference: UES03391/04).

In addition to the buildings on site, there are several large mature trees present within the site boundary, all of which were subject to a full ground level tree assessment as part of the walkover survey. All trees are considered to have negligible potential to support roosting bats due to an absence of potential roosting features.

The areas of dense scrub, tall ruderal, grassland and scattered trees on site, will provide some foraging and commuting opportunities for bats. However, the large areas of hardstanding offer limited potential for foraging and commuting bats. Furthermore, the eastern section of the site is well-lit with large flood floodlights, reducing the suitability of this area for foraging and commuting bats.

However, the immediate surrounding area provides moderate quality habitat for foraging and commuting bats, as the surrounding fields are mapped as priority habitat coastal and floodplain grazing marsh on the UK governments MAGIC map website. The periodically inundated pasture and ditches containing standing brackish water will support a variety of invertebrates on which bats can forage. Roosting opportunities are also present in the surrounding residential and farm buildings. In the wider surrounding area, habitats to the north and west are of lower quality due to the suburban areas of Blackpool, with numerous residential houses and well-lit busy roads. Habitats to the east and south are of moderate potential with large areas of improved pasture fields intersected with drains, small areas of woodland and unlit roads.

3.3.5 Hazel dormouse

The habitats on site are relatively unsuitable for dormice. There is no woodland on site and the hedgerows are species poor. The areas of dense scrub are not particularly species-rich and lack key species such as hazel *Corylus avellana* and honeysuckle *Lonicera periclymenum*, but the bramble would provide an alternative food source. However, hazel dormice are not known to be present within the local area and have a limited distribution nationally. Therefore, it is considered reasonably unlikely that hazel dormice will be present on site.

3.3.6 Birds

Although a targeted bird survey was not conducted during the site visit, the following bird species were recorded whilst on site: blue tit *Cyanistes caeruleus*, great tit *Parus major*, carrion crow *Corvus corvone*, wood pigeon *Columba palumbus*, robin *Erithacus rubecula*, herring gull *Larus argentatus*, goldfinch *Carduelis carduelis* and blackbird *Turdus merula*.

The trees, hedgerows, tall ruderal, dense scrub and buildings within the proposed development boundary have the potential to support breeding birds in the spring and summer.

The proposed development site boundary lies within the SSSI IRZ for Ribble Estuary SSSI, which is primarily designated for its notable wintering bird assemblages, especially for pink-footed geese, Bewick's swan *Cygnus columbianus bewickii* and whooper swan. The site also lies within an area that may be considered functional land for species associated with Ribble and Alt Estuaries SPA and Ribble and Alt Estuaries Ramsar designations. However, the proposed site is considered to be broadly unsuitable for wintering birds, including pink-footed geese, Bewick's swan and whooper swan. This is due to the large areas of hardstanding and buildings and absence of ephemeral scrapes or areas of standing water. Furthermore, the site is regularly disturbed by people and traffic, reducing its suitability to support wintering birds. Furthermore, the surrounding arable and improved fields will provide higher quality feeding opportunities for wintering birds, which will remain unaffected by the current proposals.

3.3.7 Trees

There are no tree species on site which are afforded statutory protection, however individual trees may be subject to a Tree Preservation Order (TPO).

3.3.8 Hedgerows

There are two species-poor hedgerows on site. It is unlikely that these hedgerows will qualify as "important" for ecological reasons under the Hedgerow Regulations, but they may qualify on historical grounds.

3.3.9 Plant communities

No plant communities or individual species were recorded on site which are afforded statutory protection in their own right.

3.3.10 Invasive species



Two small areas of *Cotoneaster* were recorded on site, within the northern section of the site, see Target Note (TN) 1 and Photographs 26, 27 and 28.

3.3.11 Otter and white-clawed crayfish

No records of white-clawed crayfish were returned from within 2km of the proposed development site. Three records of otter were returned, but the closest record is located 525m south of the development site. There are no waterbodies or watercourses on site or within the immediate vicinity of the site that are suitable to support otter, or white-clawed crayfish. As such, these species are not considered to be present on site or within the immediate vicinity of the site.

3.3.12 Water vole

Twelve records of water vole were returned from within 2km of the proposed development site. The closest record is located approximately 1km south of the proposed development site and was recorded in 2010. Habitats on site are broadly unsuitable for water vole, due to the absence of standing water, particularly as the ditch was completely dry and the time of survey and heavily vegetated with bramble scrub with few grasses or sedges that may otherwise present foraging opportunities.

The ditch was dry at the time of the survey and is therefore considered unlikely to support breeding water voles. Furthermore, the ditch has been subject to a detailed water vole survey as part of ecological surveys to inform a separate planning application (planning application reference 21/0472). Tyrer Ecological Consultants Ltd completed a PEA survey in February 2021 to identify the potential ecological impacts associated with the proposed erection of 40 residential dwellings within the parcel of land at Cropper Lodge (located approximately 70m north of the development boundary). The PEA identified potential water vole field signs (burrows and feeding remains) within one ditch located approximately 70m north-west of the current proposed development boundary, see Tyrer Ecological Consultants Ltd (February 2021) Preliminary Ecological Appraisal for Land at Cropper Lodge for further information. A subsequent water vole survey was undertaken by Tyrer Ecological Consultants Ltd in May 2021 and did not identify any field signs for water vole associated with any of the ditches within the proposed site boundary (planning reference 21/0471). The survey concluded that the ditches are unlikely to be used by water vole for breeding purposes as many of the ditches were dry or only held a small amount of water (approximately 0.2m depth), see the water vole letter prepared for the Land at Cropper Lodge by Tyrer Ecological Consultants Ltd on 25th May 2021.

Therefore, taking into account the current and previous survey information, in addition to the absence of records within 1km, it is considered reasonably unlikely that water voles will be directly or indirectly impacted by the proposed development.

3.3.13 Other notable species

No records for hedgehog were returned within 2km of the proposed development site. Twenty-nine records for brown hare were returned within 2km of the proposed development site, the closest record was located approximately 260m south-east of the proposed development site.



The site contains areas of tall ruderal, improved grassland, poor semi-improved grassland and scrub habitats. Whilst these habitats are broadly suitable to support hedgehog and brown hare, the majority of site comprises hardstanding and buildings, which is unsuitable for hedgehogs and brown hare. Habitats in the immediate vicinity will provide higher quality opportunities for hedgehogs and brown hare, with areas of improved fields with numerous field ditches, areas of tree and hedge-lined fields.



4 EVALUATION AND RECOMMENDATIONS

This section provides a brief assessment of the likely impacts associated with the proposed development on the receptors identified during the walkover survey and desk study. It also includes any mitigation and compensation measures which may be required for the proposed development to proceed.

4.1 Habitats

4.1.1 Designated sites

The sites identified during the desk study were cross-referenced with the survey area relevant to this report. The closest statutorily protected sites are Marton Mere SSSI and LNR, which are located approximately 2.5km north of the proposed site boundary. Given the distances from site and the scale of development, it is considered unlikely that the proposed development will have any direct or indirect impact on this designated site or any sites within 2km.

However, the site lies within SSSI IRZ for Ribble Estuary SSSI within which Natural England request that they are consulted on residential developments of 10 units or more. Ribble Estuary SSSI, Ribble & Alt Estuaries Ramsar and Ribble & Alt Estuaries SPA are located approximately 4.2km south-west of the development boundary and are primarily designated for their wintering bird assemblages. Given the distances from site and the scale of development, it is considered unlikely that the proposed development will have any direct or indirect impact on these designated sites. Furthermore, the Natura 2000 data sheet for the Ribble & Alt Estuaries SPA lists the main threats to the SPA as air pollution, invasive non-native species, biocenotic evolution, succession, human induced changes in hydraulic conditions and changes in abiotic conditions. It is considered that the localised construction work associated with the proposed development is a sufficient distance from the designated sites that any potential impacts, including pollution incidents, are significantly reduced. Moreover, the site is already highly disturbed due to the presence of the garden centre.

Although a targeted bird survey was not conducted, the site is considered to provide unsuitable habitat for wintering wading birds. No species listed as designation features of the nearby SSSI or European designated sites were observed using the site and, due to its small size and proximity to newly constructed residential developments, the site is not considered to be functionally linked to any nearby European designated sites.

Therefore, it is considered that the proposed development will not have any indirect or direct impacts on the nearby designated sites.

4.1.2 Hedgerows and trees

There are two species-poor hedgerows on the site and a number of trees on the site, which vary in condition and maturity.

Construction impacts

Trees, in particular those forming a linear feature across the site, and hedgerows should be retained where possible. RPAs should be established and implemented around the trees and



hedgerows which are to be retained. These areas should be adequately protected by appropriately designed protective barriers and ground protection throughout the entire development process.

Mitigation

Any works close to the site boundaries should be mindful of the hedgerows and trees and their RPAs.

Compensation

If any hedgerows or trees are to be removed, they should be replaced accordingly as part of a detailed landscaping scheme, with only native species to be planted.

The management of existing hedgerows on site will provide higher quality habitat for wildlife locally.

Operational impacts

No operational impacts are envisaged.

4.2 Species

4.2.1 Amphibians and reptiles

Although the presence of GCNs on site is considered unlikely, the works should still be completed under RAMs to ensure that other common amphibian species are not affected by the works. Furthermore, the presence of reptiles is considered reasonably unlikely, but it is recommended that RAMs are implemented within the small areas of suitable habitat (tall ruderal, ephemeral short perennial, dense scrub and poor semi-improved grassland), to reduce any residual risk to reptiles to negligible levels.

The dense scrub, tall ruderal, hedgerows, scattered trees and poor semi-improved grassland are relatively suitable for foraging, sheltering and commuting reptiles and common amphibian species.

Construction impacts

Potential impacts include direct harm, injury and / or death to individuals

Mitigation

To adhere to best practice guidelines and to safeguard reptiles and common amphibians, the following RAMs should be implemented on site during the construction phase of the development:

- The vegetation scheduled for removal within the working areas onsite will be mown or otherwise managed to maintain a sward height of less than 100mm. The mown / cleared area will then be maintained with a short sward until the works on site have been completed. This reduction in sward height will be undertaken in two stages, first to a height of 150mm then to less than 100mm after a period of at least 48 hours. This

will ensure that reptiles and common amphibians and other wildlife have sufficient time to disperse from the working areas of their own accord.

- Any potential hibernacula will be removed from the working area by hand or will be checked by hand for sheltering wildlife prior to any removal by mechanical means or burning. Hibernacula could include piles of rubble, bricks, debris, brash piles etc.
- No excavations are to be left open overnight. If this is not feasible a plank should be left within the excavation at a 45 degree angle to allow reptiles and amphibians to escape. Any open excavations should be checked for amphibians in the morning prior to start of works on site.
- Materials will be stored on pallets off the ground in order to reduce the risk of reptiles or amphibians sheltering underneath them.
- The hedgerows and trees along the site boundaries should remain, where feasible, to continue to provide shelter and connectivity across site for reptiles, amphibians and other fauna.
- UES will remain on-call throughout the development and if any newts or reptiles are encountered, work on site is to stop immediately and ecological advice is to be sought. UES can be contacted directly on **01565 757788**.

Operational impacts

No operational impacts are envisaged.

4.2.2 Bats

There are numerous buildings present on site, all of which were subject to a bat scoping survey at the same time as this PEA survey. Three buildings on site were assessed as having low potential to support roosting bats and were subject to one bat presence / absence survey on 3rd September 2021. No bats were found to be roosting within the three buildings during the presence / absence survey, therefore no further mitigation or compensation measures are required with regards to bats.

All other buildings on site are considered to offer negligible bat roosting potential and do not require any further surveys. Further information and building descriptions are available in the combined bat scoping and presence / absence survey report (reference: UES03391/04).

However, the areas of grassland, tall ruderal, scrub, hedgerows and trees on site provide some foraging and commuting opportunities for bats

Construction impacts

Inappropriate landscaping could result in the severing of commuting corridors used by bats as well as the loss of foraging habitats.

Mitigation

Trees and hedgerows, in particular those forming a linear feature across the site, should be retained and protected where possible.

Enhancements

The provision of bat boxes as part of the development proposals would increase the roosting opportunities for bats on site but would also increase the ecological value of the site. Bat boxes that could be used on site include:

- Schwegler 1FF box (affixed to trees or buildings)
- Schwegler 2F box (affixed to trees or buildings)
- Schwegler 1FW hibernation box (affixed to trees)
- Schwegler 2FR bat tube (installed in connected pairs or threes into the external walls of buildings)

Bat boxes affixed to trees should be fitted at a height of between 4 and 6 metres on a southerly aspect.

The bat boxes affixed to, or installed into the external walls of buildings should be installed just below the eaves / roof height.

It should be noted that once bat inhabits a bat box, they may only be disturbed by a licensed bat worker.

Operational impacts

Inappropriate external lighting could result in the severing of commuting corridors used by bats as well as the loss of foraging habitats.

Mitigation

No detailed lighting proposals are as yet available to UES, however care must be taken when installing any new lighting to ensure that light spillage onto the bat boxes, hedgerows and retained tree lines is minimised, see Appendix 6 – External Lighting Guidance for further information. This may require the use of cowling or relocation of the bat box or lighting.

4.2.3 Birds

There are a number of habitats, such as buildings, hedgerows, poor semi-improved grassland, tall ruderal dense scrub and mature trees which could support breeding birds.

Construction impacts

Demolition works, tree felling, arboricultural works and vegetation removal could result in the direct loss of nests, any individuals within the nests and of available nesting territories if conducted during the breeding season.

Mitigation

Demolition works, site clearance, tree felling, arboricultural works and vegetation removal (including enabling works) are to take place outside of the breeding bird season and should

not be undertaken from March to August inclusive. If this is not possible and works need to take place between this period, a targeted breeding bird nest scoping survey should be conducted by a suitably qualified ecologist immediately prior to the works, or an ecological clerk of works appointed to oversee the works.

Compensation and enhancement

If extensive areas of vegetation are to be removed, consideration should be given to providing replacement habitat for foraging and nesting birds by incorporating tree, shrub or scrub planting as part of the landscaping proposals.

Landscaping can also be used to promote biodiversity through the appropriate design of habitats and creating habitat mosaics, which promote natural linkages and hence the dispersal of target species. Principles and landscaping ideas beneficial to wildlife and relevant to this site include:

- Planting and management of hedgerows
- Planting of berry and nut bearing shrub species to encourage winter birds
- Planting and management of shrubs which develop a mosaic of structures to support breeding birds
- Use of nectar bearing flowers to encourage invertebrates (such as bees, flies, beetles and butterflies)

Species are to be native, of local provenance or to have a proven benefit to biodiversity. Further information can be found at Appendix 7 – Landscape design for birds.

Compensation for the loss of nesting habitat and the enhancing of the nesting habitat on site can also be provided through the provision of bird nest boxes. Bird boxes that could be used on site include:

- Schwegler 1B nest box (affixed to trees)
- Schwegler 1SP sparrow terrace (affixed to building below the eaves)
- Schwegler 2H robin nest box (affixed to trees)
- Schwegler 3S starling nest box (affixed to trees or buildings)
- Schwegler 1MR Avianex box (affixed to trees or buildings)
- Manthorpe swift nest brick (incorporated into the external walls of buildings)

The bird boxes should be sited at a minimum height of three metres. Unless there are trees which shade the box during the day, the boxes should be oriented between north and east, thus avoiding strong sunlight and the wettest winds.

Operational impacts

Inappropriate management of the habitats on site could degrade them and render them unsuitable for wildlife.

Mitigation

It is important to implement good horticultural practice in any landscaping scheme, including the use of peat-free composts, mulches and soil conditioners. The use of pesticides (herbicides, insecticides, fungicides and slug pellets) should be discouraged to prevent fatal effects on the food chain. Any pesticides used should be non-residual.



Excessive removal or pruning of trees and hedgerows should be avoided to maximise the growth and plant matter available to wildlife. Pruning should be left until late winter to leave seeds and berries for wintering wildlife and to ensure no impact on breeding and nesting birds.

4.2.4 Invasive species

Two small stands of cotoneaster are present on site. Cotoneaster is listed under Schedule 9 of the Wildlife and Countryside Act 1981. As such, it is an offence to plant or otherwise cause this species to grow in the wild.

Construction impacts

Site clearance and setting out could result in the disturbance and dispersal of cotoneaster knotweed on and off site.

Mitigation

If the areas containing invasive species are to be worked in, the cotoneaster plants will need to be subject to control measures prior to the start of works on site and eradicated as part of the development in order to ensure that they do not spread across the site or onto adjacent areas. Cotoneaster can be controlled by mechanical removal or chemically via cutting the stumps and applying glyphosate herbicide.

Any plant material or contaminated soil that is pulled or excavated will need to be removed from site and disposed of at a licenced landfill site as controlled waste.

Operational impacts

If the areas of cotoneaster are subject to control measures prior to the start of works and are eradicated as part of the development site, no further operational impacts are envisaged. However, complete eradication is an ongoing process, and if it is not treated as such, it can return and continue to spread. This could become more acute with increased activity on site.



5 CONCLUSION

The proposed development site has an area of approximately 1.9ha and contains areas of hardstanding, buildings, improved grassland, poor semi-improved grassland, bare ground, tall ruderal, dense scrub, ephemeral short perennial, hedgerows and scattered trees. There is also a dry ditch located immediately adjacent to the north-western site boundary.

The preliminary ecological appraisal has highlighted potential issues with the following ecological receptors on or adjacent to site: amphibians and reptiles, trees and hedgerows, invasive species, breeding birds and bats. Provided these issues are addressed in accordance with the recommendations detailed in this report, the development may proceed without adversely impacting the aforementioned ecological receptors.

The development also presents an opportunity to enhance the habitats available to wildlife on site. The provisioning of bat and bird nest boxes on site will provide improved roosting and nesting opportunities into the long-term future of the site.

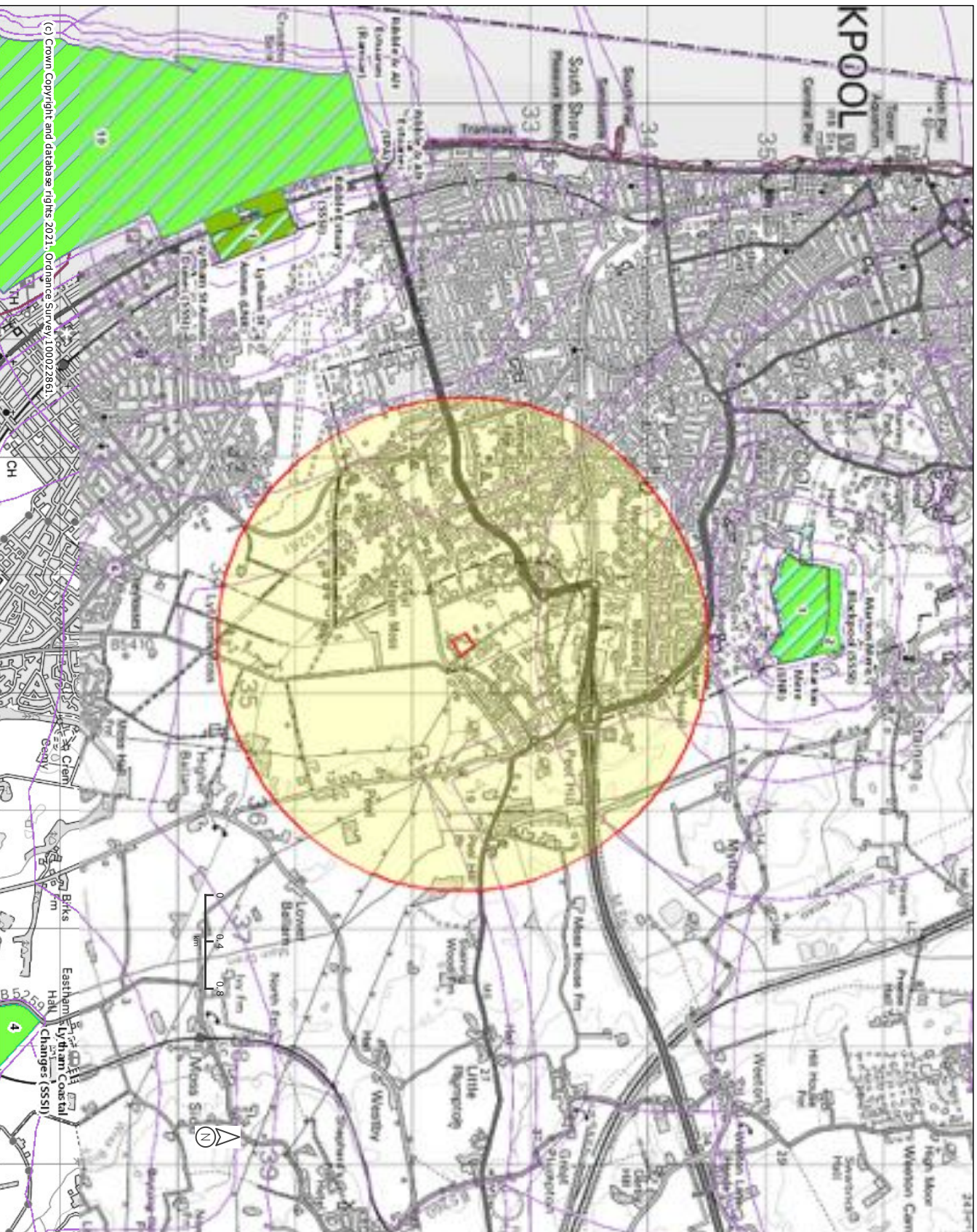
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APPENDICES

Appendix 1 – Desk Study



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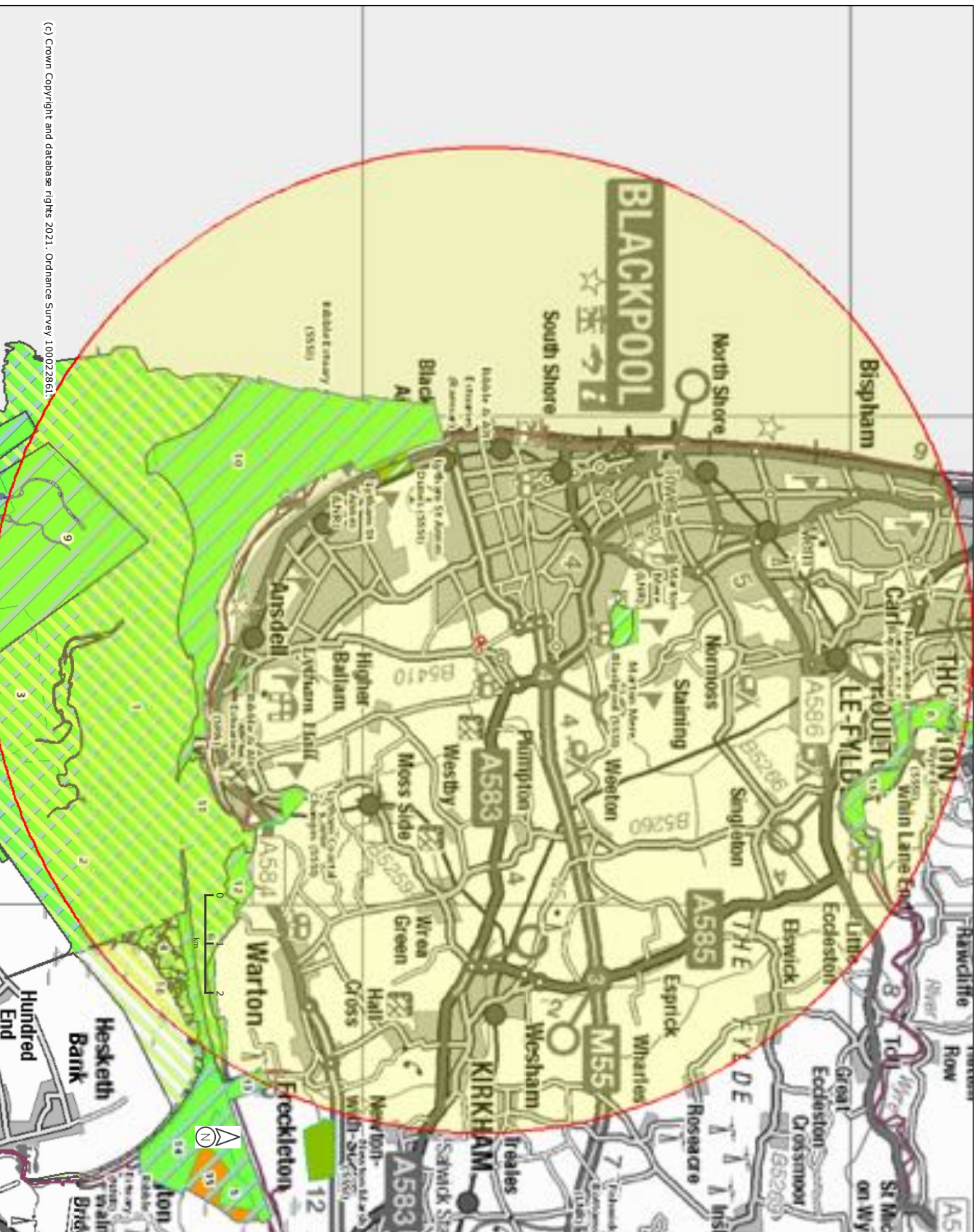
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- National Nature Reserves (England)
- Ramsar Sites (England)
- Proposed Ramsar Sites (England)
- Sites of Special Scientific Interest Units (England)
- Favourable Condition
- Unfavourable Recovering
- Unfavourable no change
- Unfavourable Declining
- Part Destroyed
- Destroyed
- Not Assessed
- Sites of Special Scientific Interest (England)
- SSSI Impact Risk Zones - to assess planning applications for likely impacts on SSSIs/SACs/SPAs & Ramsar sites (England)
- Special Areas of Conservation (England)
- Possible Special Areas of Conservation (England)
- Special Protection Areas (England)
- Potential Special Protection Areas (England)
- Biosphere Reserves (England)



















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Map produced by MAGiC on 6 August, 2021.
 Copyright resides with the data suppliers and the map must not be reproduced without their permission. Some information in MAGiC is a snapshot of the information that is being maintained or continually updated by the originating organisation. Please refer to the metadata for details as information may be illustrative or representative rather than definitive at this stage.

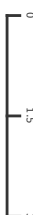
Statutorily Protected Sites within 10km



Legend

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-  National Nature Reserves (England)
-  Ramsar Sites (England)
-  Proposed Ramsar Sites (England)
-  Sites of Special Scientific Interest Units (England)
-  Favourable Condition
-  Unfavourable Recovering
-  Unfavourable no change
-  Unfavourable Declining
-  Part Destroyed
-  Destroyed
-  Not Assessed
-  Sites of Special Scientific Interest (England)
-  Special Areas of Conservation (England)
-  Possible Special Areas of Conservation (England)
-  Special Protection Areas (England)
-  Potential Special Protection Areas (England)
-  Biosphere Reserves (England)

Projection = OSG836
 xmin = 320900
 ymin = 426300
 xmax = 347600
 ymax = 438700

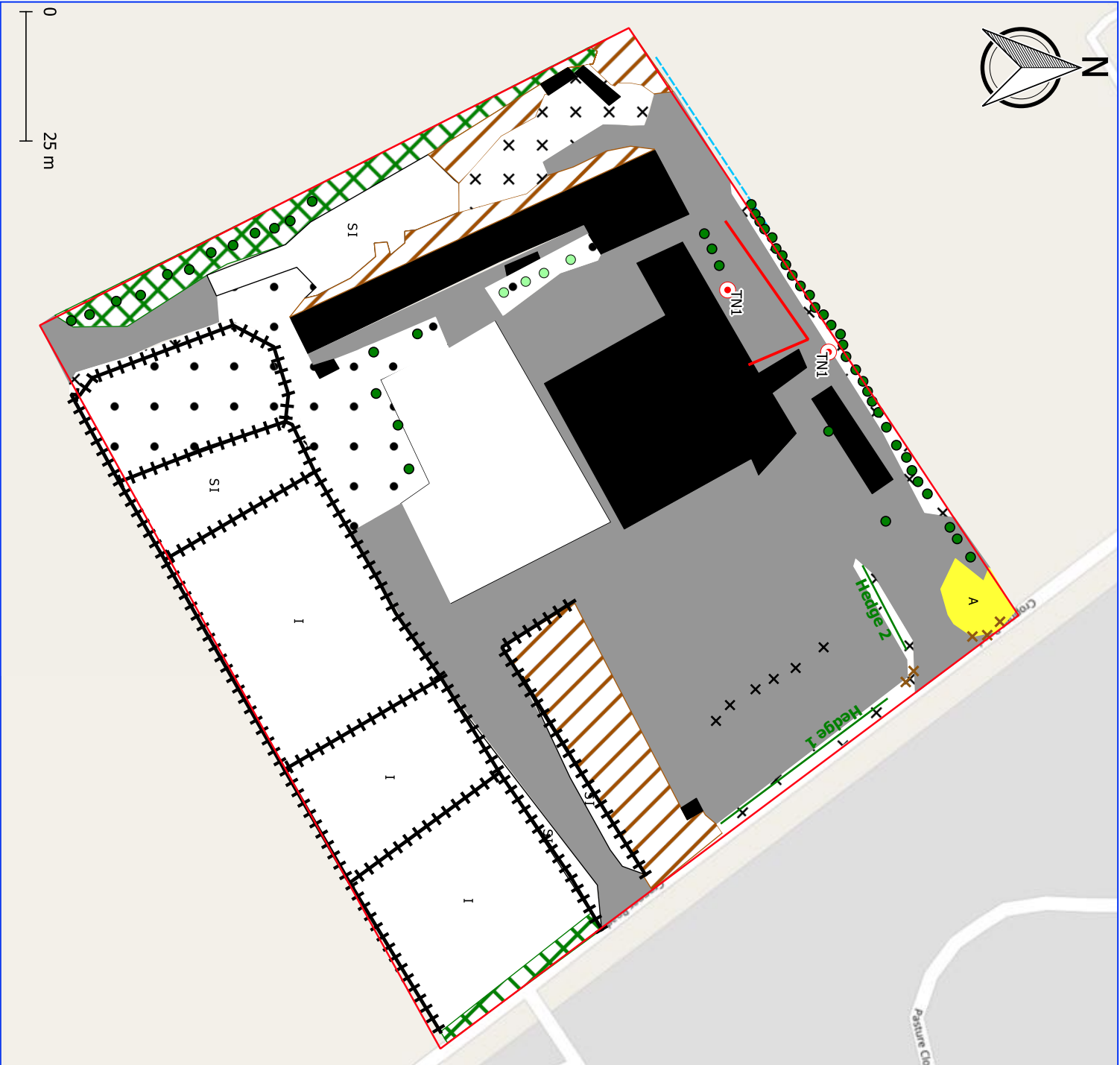


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Appendix 2 – Phase 1 Habitat Plan

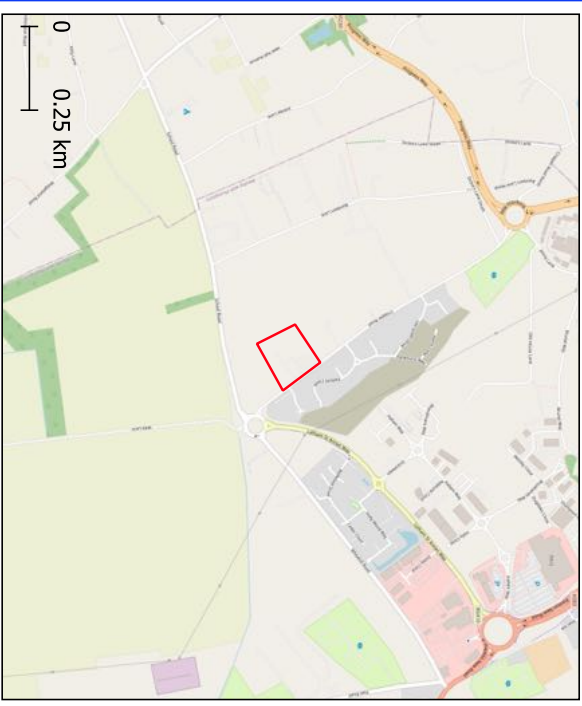
Target Note 1 - Cotoneaster



Preliminary Ecological Appraisal



Site: Land off Cropper Road
 NGR: (SD) 334565 432442
 Author: Emily Clark
 Date: 10/08/2021



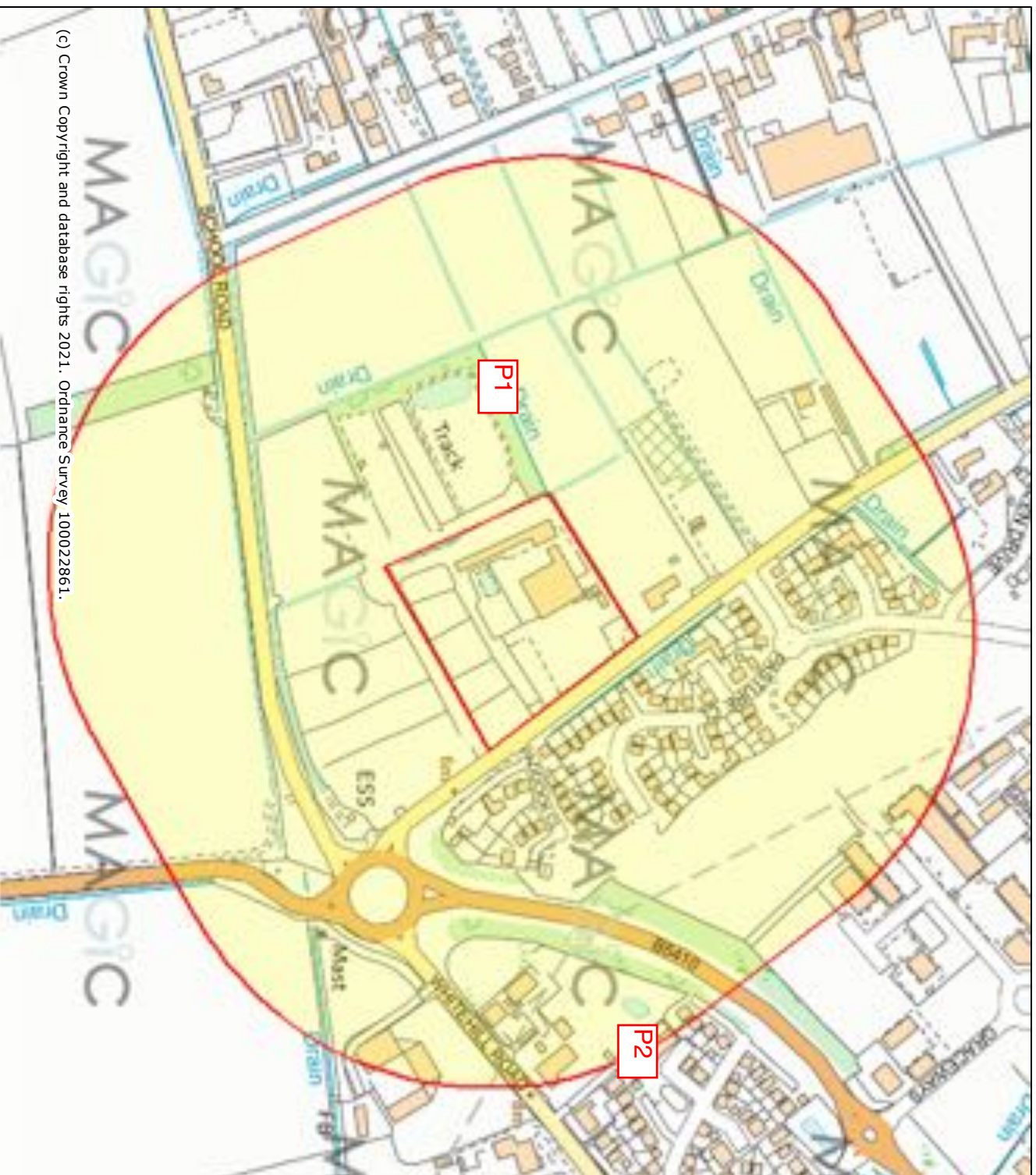
- KEY:**
- Survey boundary
 - A2.1 - Scrub - dense/continuous
 - A3.1 Broadleaved scattered trees
 - A3.2 Coniferous scattered trees
 - I B4 - Improved grassland
 - SI B6 - Poor semi-improved grassland
 - C3.1 - Tall ruderal
 - A Amenity grassland
 - J1.2 - Ephemeral/short perennial
 - J1.4 Introduced shrub
 - J2.1.2 Intact hedge - species-poor
 - J2.4 Fence
 - J2.5 Wall
 - J2.6 Dry ditch
 - J3.6 - Buildings
 - J4 - Bare ground
 - J5.1 - Handstanding
 - J5.2 - Other habitat
 - Target notes
 - × J1.4 Introduced shrub

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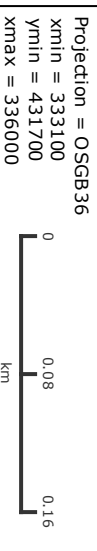
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Appendix 3 – Pond Plan



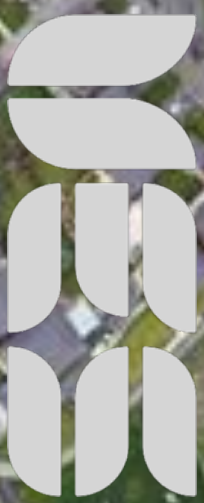
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Appendix 4 – Aerial Photographs



**Land off Cropper Road,
Blackpool**

Close aerial photograph

— Development boundary





Land off Cropper Road,
Blackpool

Wide aerial photograph



Site location





Appendix 5 – Photographs



Photograph 1 – Looking across the southern section of the site, towards Cropper Road.



Photograph 2 – Example of tall ruderal succeeding to scrub along the south-western site boundary.



Photograph 3 - Example of scrub along the south-western site boundary.



Photograph 4 – Lombardy poplar trees along northern site boundary with Leyland cypress and dogwood also present.



Photograph 5 – Tree line along the south-western site boundary.



Photograph 6 – View of trees located immediately adjacent to the garden centre.



Photograph 7 – View of coniferous trees adjacent to the stable block within the centre of the site.



Photograph 8 – Improved grassland field which has been heavily grazed by horses.



Photograph 9 – Poor semi-improved grassland field within the southern section of the site.



Photograph 10 – Looking south across the small area of poor semi-improved grassland and tall ruderal within the western section of the site.



Photograph 11 – example of damp grassland area within the western section of the site.



Photograph 12 – View of small shallow pool within the western section of the site.



Photograph 13 – Tall ruderal with discarded materials and rubble present in the north-western corner of the site.



Photograph 14 - Tall ruderal with discarded materials and rubble present in the north-western corner of the site.



Photograph 15 – View of earth bund which has been colonised by nettles and creeping thistle.



Photograph 16 – Amenity grassland within the northern corner of the site.



Photograph 17 – Example ephemeral short perennial species on site.



Photograph 18 - Example ephemeral short perennial species around buildings on site.



Photograph 19 – View of Hedge 1.



Photograph 20 – View of Hedge 2.



Photograph 21 – View of bare ground field.



Photograph 22 – Looking south across the site.



Photograph 23 – External view of garden centre.



Photograph 24 – View of Pond 1 which was dry at the time of the survey.



Photograph 25 – View of Pond 1.



Photograph 26 – Small area of cotoneaster within the tree line on the northern site boundary.



Photograph 27 – Close view of cotoneaster.



Photograph 28 – Small area of cotoneaster within the northern section of the site, near the buildings.



Appendix 6 – External lighting guidance

Lighting scheme in relation to bats

The two most important features of street and security lighting with respect to bats are:

1. The UV component. Low or zero UV installations are preferred to reduce attraction of insects to lighting and therefore to reduce the attraction of foraging bats to these areas.
2. Restriction of the area illuminated. Lighting must be shielded to maintain dark areas, particularly above lighting installations, and in many cases, land adjacent to the areas illuminated. The aim is to maintain dark commuting corridors for foraging and commuting bats. Bats avoid well lit areas, and these create barriers for flying bats between roosting and feeding areas.

UV characteristics:

Low

- Low pressure Sodium Lamps (SOX) emit a minimal UV component.
- High pressure Sodium Lamps (SON) emit a small UV component.
- White SON, though low in UV, emit more than regular SON.

High

- Metal Halide lamps emit more UV than SON lamps, but less than Mercury lamps
- Mercury lamps (MBF) emit a high UV component.
- Tungsten Halogen, if unfiltered, emit a high UV component
- Compact Fluorescent (CFL), if unfiltered, emit a high UV component.
- Variable
- Light Emitting Diodes (LEDs) have a range of UV outputs. Variants are available with low or minimal UV output.
- Glass glazing and UV filtering lenses are recommended to reduce UV output.

Street lighting

- Low-pressure sodium or high-pressure sodium must be used instead of mercury or metal halide lamps. LEDs must be specified as low UV. Tungsten halogen and CFL sources must have appropriate UV filtering to reduce UV to low levels.
- Lighting must be directed to where it is needed and light spillage avoided. Hoods must be used on each lamp to direct light and contain spillage. Light leakage into hedgerows and trees must be avoided.
- If possible, the times during which the lighting is on overnight must be limited to provide some dark periods. If the light is fitted with a timer this must be adjusted to reduce the amount of 'lit time' and provide dark periods.

Security and domestic external lighting

The above recommendations concerning UV output and direction apply. In addition:

- Lighting should illuminate only ground floor areas. Light should not leak upwards to illuminate first floor and higher levels.
- Lamps of greater than 2000 lumens (150 W) must not be used.
- Movement or similar sensors must be used. They must be carefully installed and aimed, to reduce the amount of time a light is on each night.
- Light must illuminate only the immediate area required, by using as sharp a downward angle as possible. Light must not be directed at or close to bat roost access points or flight paths from the roost. A shield or hood can be used to control or restrict the area to be lit.
- Wide angle illumination must be avoided as this will be more disturbing to foraging and commuting bats as well as people and other wildlife.
- Lighting must not illuminate any bat bricks and boxes placed on buildings, trees or other nearby locations.



Appendix 7 – Landscape design for birds

SPECIES	F	SIZE			LOCATION			SOIL MOISTURE	BENEFITS TO WILDLIFE	
		T	S	M	L	H	W			Su/Sh
TREES										
Alder**	D				Y			Su	M	Seed food for birds
Beech*	D		Y	Y	Y	Y		Su	D	Seed food for birds
Birch*	D		Y	Y	Y			Su	D	Seed food for birds
Bird cherry *	D		Y	Y	Y			Su	D	Food for birds, flowers attract insects
Crab apple*	D		Y	Y	Y			Su	D	Food for birds, flowers attract insects
English oak*	D				Y			Su	D	Food for birds, insects and mammals, nesting sites
European larch*	D				Y			Su	M	Seed food for birds
Holly*	E		Y	Y	Y			Su	D	Fruits eaten by birds, food plant of holly blue butterfly
Juniper*	E							Su	D	Shelter and nest sites, fruits eaten by thrushes
Lime*	D				Y	Y		Su	D	Seed food for birds
Rowan*	D				Y	Y		Su	D	Fruits eaten by birds
Scott's pine*	E				Y	Y		Su	D	Seed food for birds
Swedish whitebeam	D		Y	Y	Y			Su	D	Food for birds, flowers attract insects
Wild cherry*	D		Y	Y	Y			Su	D	Food for birds, flowers attract insects
Yew*	E		Y	Y	Y	Y		Su	D	Food for birds, nesting sites
SHRUBS										
Barberry	B	Y	Y	Y	Y	Y		Su	D	Good shelter and nest cover for birds, berries may provide food
Blackthorn*	D		Y	Y	Y	Y		Su	M	Attracts insects, food for birds, nesting sites
Buckthorn*	D		Y	Y	Y	Y		Su/Sh	D	Food plant of brimstone butterfly, fruits eaten by birds
Butterfly bush	E	Y	Y	Y	Y	Y		Su	D	Attracts insects
California lilac	E		Y	Y	Y	Y		Su	D	Flowers attractive to various insects
Dogwood*	D		Y	Y	Y	Y		Su	D	Food for birds, winter stem colour
Elder*	D		Y	Y	Y	Y		Su	D	Food for birds
Escallonia	E		Y	Y	Y	Y		Su	M	Flowers attractive to various insects, tolerant of salt - good in coastal areas
Field maple*	D		Y	Y	Y	Y		Su	D	Good source of insect food for birds
Firethorn	E	Y	Y	Y	Y	Y		Su	D	Berries popular with many bird species
Flowering current	D		Y	Y	Y	Y		Su	D	Early flowers attractive to insects
Forsythia	D		Y	Y	Y	Y		Su	D	Early flowers attractive to insects
Garriga	E	Y	Y	Y	Y	Y		Su	D	Winter catkins, early cover for nesting birds
Goat willow*	D	Y	Y	Y	Y	Y		Su	D	Catkins attractive to bees, good source of insect food for birds
Gorse*	E		Y	Y	Y	Y		Su	D	Early flowers attractive to insects, good protection for birds
Rhynismatales	E		Y	Y	Y	Y		Su	D	Good cover, tolerant of salt - good in coastal areas
Guelder-rose*	D		Y	Y	Y	Y		Su	D	Food for birds & insects
Hawthorn*	D		Y	Y	Y	Y		Su	D	Flowers attractive to insects, fruits eaten by birds, good shelter and nesting site
Hazel*	D	Y	Y	Y	Y	Y		Su	D	Food for birds, insects and mammals, nesting sites
Laurel-leaved viburnum	E		Y	Y	Y	Y		Su	D	Early flowers good for insects, good cover for birds

Lavender	E	Y	Y	Y	Y	Y	Su	D	Flowers attract many insects, seeds popular with finches
Lilac	D	Y	Y	Y	Y		Su	D	Flowers attractive to insects
Oregon grape	E	Y	Y	Y			Su/Sh	M	Early flowers good for insects
Pheasant berry	E	Y	Y	Y			Su	D	Berries popular with many bird species
Privet*	E	Y	Y	Y	Y		Su	D	Flowers attract butterflies, produces berries
Rose	D	Y	Y	Y	Y	Y	Su	D	Flowers of some varieties attractive to birds
Rosemary	E	Y	Y	Y	Y	Y	Su	D	Flowers attract many insects
Shad bush	D	Y	Y				Su	M	Flowers attract insects, early forming berries good for thrushes
Snowberry	D	Y	Y	Y	Y		Su/Sh	D	Flowers attractive to bees, fruits attractive to birds, dense stems provide cover
Spindle*	D	Y	Y	Y			Su	D	Berries eaten by birds, but poisonous to mammals
Tamarix	D	Y	Y	Y	Y		Su	D	Flowers attractive to various insects, tolerant of salt - good in coastal areas

CLIMBERS & RAMBLERS

Bramble*	D	Y	Y	Y	Y	Y	Su/Sh	D	Food for birds, insects and mammals, nesting sites
Clematis	D	Y	Y	Y	Y		Su	D	Nesting sites
Honeysuckle*	D	Y	Y	Y	Y	Y	Su/Sh	D	Attractive to insects, good nesting site, food for birds
Ivy*	E	Y	Y	Y	Y	Y	Su/Sh	D	Attractive to insects, good nesting site, food for birds
Rose	D	Y	Y	Y	Y	Y	Su	D	Fruits of some varieties attractive to birds
Winter jasmim	E	Y	Y	Y	Y	Y	Su	D	Early flowers attractive to insects
Wisteria	D	Y	Y	Y	Y	Y	Su	D	Attractive to insects, good nesting site

KEY

*	Native (NB: some varieties are cultivars or non-native)	Location	H = may be used as a hedge plant
F	D = Deciduous		W = may be used as a wall shrub
Foliage type	E = Evergreen		Su = Sunny borders
	B = Both		Sh = Shade tolerant
Size	T = Terraces & balconies		Su/Sh = Grows in partial shade
Suitable for garden sizes	S = Small garden (</= 6m x 4m)	Soil moisture	D = Well drained
	M = Medium gardens (</= 12m x 6m)		M = Moist
	L = Large gardens (> 12m x 6m)		W = Wet soil



Appendix 8 – Planning and statutory context

Ecological assessments

Ecological assessments play an important part within the planning context; they include an initial assessment which highlights any specific interests of a site. From the initial site assessment, the surveyor assesses the suitability of habitats within the site to support protected species and makes recommendations for further survey works if required. The following paragraphs provide a brief interpretation of legislative protection in relation to the following species and habitats:

Amphibians

Great crested newts
Other amphibians
Reptiles
Badgers
Hazel dormouse
Bats
Birds

Trees

Hedgerows
Invasive plant species
Otters
Water voles
White-clawed crayfish
Planning policy

Amphibians

Great crested newts

Great crested newts (GCN) *Triturus cristatus* and their habitat (aquatic and terrestrial) are afforded full protection by the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Amendment (EU exit) Regulations 2019. If both national and international legislation are taken together, it is an offence to:

- Deliberately, intentionally or recklessly kill, injure or capture GCN
- Deliberately, intentionally or recklessly disturb GCN in such a way to be likely to significantly affect:
 - their ability to survive, breed, reproduce, rear or nurture their young
 - their ability to hibernate or migrate
 - their local distribution or abundance
- Deliberately, intentionally or recklessly take or destroy the eggs of GCN
- Damage or destroy breeding sites or resting places of GCN
- Intentionally or recklessly disturb sheltering GCN, or obstruct access to their resting place
- Keep, transport, sell or exchange, or offer for sale or exchange any live or dead GCN, any part of GCN or anything derived from GCN

Penalties for offences include fines of up to £5000, plus up to six months imprisonment, for each offence committed.

GCN are also protected by the Protection of Animals Act 1911, which prohibits cruelty and mistreatment. Releasing a GCN in such a way as to cause undue suffering may be an offence under the Abandonment of Animals Act 1960.

In addition to the above, there are various statutory provisions relating to the transport of animals, designed to ensure their welfare. GCN are also listed under Section 41 of the NERC Act (see bats section for further details).

It is important to identify the presence of GCN individuals and also to identify suitable habitat on sites so that legal obligations regarding this species can be observed. If a survey identifies the presence of GCN on the site, an assessment of the population size class is required. This can then inform a mitigation scheme, which would need to be developed in liaison with the local Natural England team, and which minimises direct threats to newts and compensates for any loss of habitat. A licence issued by Natural England is required for the legal implementation of a mitigation scheme.

A Natural England mitigation licence application requires a Mitigation Method Statement and a Reasoned Statement of Application. The Mitigation Method Statement contains details of the proposed mitigation works. The Reasoned Statement needs to provide a rational and reasoned justification as to why the

proposed development meets the requirements of the Conservation (National Habitats & c.) regulations 1994, namely Regulations 44(2)(e), (f) or (g), and 44(3)(a).

Other amphibians

More common British amphibians, such as common frog *Rana temporaria*, common toad *Bufo bufo*, smooth newt *Triturus vulgaris* and palmate newt *Triturus helveticus* are protected only by Section 9(5) of the Wildlife and Countryside Act 1981 (as amended). This section prohibits sale, barter, exchange, transporting for sale and advertising to sell or to buy.

The above named species are also listed as UK Species of Conservation Concern. Due to general declines in most British amphibian species in recent years, many local authorities require amphibian surveys as a planning condition, or as part of environmental information submitted as part of a planning application, even where the presence of GCN is ruled out.

Natterjack toad *Bufo calamita* and pool frog *Pelophylax lessonae* are also offered the same level of protection as GCN, through the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017.

Natterjack toad, common toad and pool frog are also listed under Section 41 of the NERC Act (see bats section for further details).

Water bodies that support all five (more common) species of British amphibians in high numbers, may be afforded protection in local plans, as Sites of Importance for Nature Conservation (SINC), or a similar equivalent, for sites of local importance. A site may require statutory protection as a Site of Special Scientific Interest (SSSI).

Reptiles

Common lizard *Zootoca vivipara*, slow-worm *Anguis fragilis*, grass snake *Natrix natrix* and adder *Vipera berus* are protected under the Wildlife and Countryside Act 1981 (as amended). They are listed as a Schedule 5 species therefore part of Section 9(1) and section 9(5) apply. The Countryside and Rights of Way Act 2000 also strengthens their protection. It is offence to:

- Intentionally or recklessly kill or injure any of the species listed above
- Sell, offer, advertise or transport for sale a live or dead animal of the species listed above

If a proposed development is likely to have an impact on these reptiles the local statutory nature conservation organisation must be consulted.

Sand lizard *Lacerta agilis* and smooth snake *Coronella austriaca* receive full protection under the Wildlife and Countryside Act 1981 (as amended) and Conservation of Habitats and Species Regulations 2017. Read together, it is an offence to:

- Deliberately, intentionally or recklessly kill, injure or capture any sand lizards or smooth snakes
- Deliberately, intentionally or recklessly disturb sand lizards or smooth snakes in such a way to be likely to significantly affect:
 - their ability to survive, breed, reproduce, rear or nurture their young
 - their ability to hibernate or migrate
 - their local distribution or abundance
- Deliberately, intentionally or recklessly take or destroy the eggs of such an animal
- Damage or destroy breeding sites or resting places of such animals
- Intentionally or recklessly disturb sheltering sand lizards or smooth snakes, or obstruct access to their resting place
- Keep, transport, sell or exchange, or offer for sale or exchange any live or dead sand lizards or smooth snakes, any part of such an animal or anything derived from such an animal

Penalties for offences include fines of up to £5000, plus up to six months imprisonment, for each offence committed.

All reptile species are also listed under Section 41 of the NERC Act (see bats section for further details).

Badgers

European badgers *Meles meles* and their habitat are protected under The Protection of Badgers Act 1992 and are also included on Schedule 6 of the Wildlife and Countryside Act 1981, and Appendix III of the Bern Convention. The legislation affords badgers protection against deliberate harm or injury making it an offence to:

- Wilfully kill, injure, take, possess or cruelly ill-treat a badger (or attempt to do so)
- To interfere with a sett by damaging or destroying it
- To obstruct access to, or entrance of, a badger sett
- To disturb a badger whilst it is occupying a sett

Penalties for offences include fines of up to £5000, plus up to six months imprisonment, for each offence committed.

Works that disturb badgers whilst they are occupying a sett are illegal without a licence. Disturbance can occur even without direct interference or damage to the sett in question. In general, the following activities are likely to require a licence:

- Use of heavy machinery or significant earth moving within 30m of a sett
- Use of lighter machinery (usually any wheeled vehicles) within 20m of a sett
- Any digging, chain saw use or scrub clearance within 10m of a sett

Hazel dormouse

Hazel dormice *Muscardinus avellanarius* are offered full protection through the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017. If both national and international legislation are taken together, it is an offence to:

- Deliberately, intentionally or recklessly kill, injure or capture dormice
- Deliberately, intentionally or recklessly disturb dormice in such a way to be likely to significantly affect:
 - their ability to survive, breed, reproduce, rear or nurture their young
 - their ability to hibernate or migrate
 - their local distribution or abundance
- Damage or destroy breeding sites or resting places of dormice
- Intentionally or recklessly disturb sheltering dormice, or obstruct access to their resting place
- Keep, transport, sell or exchange, or offer for sale or exchange any live or dead dormouse, any part of a dormouse or anything derived from a dormouse

Penalties for offences include fines of up to £5000, plus up to six months imprisonment, for each offence committed.

Dormice are also listed under Section 41 of the NERC Act (see bats section for further details).

Bats

In the United Kingdom, all species of bat and their roosts are afforded full protection under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (known as the "Habitats Regulations"). The Wildlife and Countryside Act is the domestic implementation of the Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention) and was amended by the Countryside and Rights of Way Act 2000. This makes it an offence to:

- Deliberately, intentionally or recklessly kill, injure or capture a bat

- Deliberately, intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection
- Deliberately, intentionally or recklessly damage, destroy or obstruct access to any place that a bat uses for shelter or protection (even if the bat is not present at the time)
- Keep, transport, sell or exchange, or offer for sale or exchange any live or dead bat, any part of a bat or anything derived from a bat

Under UK law, a bat roost is *any structure or place which any wild [bat] ... uses for shelter or protection*. As bats often reuse the same roosts, legal opinion is that a roost is protected whether or not the bats are present at the time of the activity taking place.

Penalties for offences include fines of up to £5000, plus up to six months imprisonment, for each offence committed.

If an activity is likely to result in any of the above offences, a licence can be applied for to derogate from the protection afforded. These licences must provide appropriate mitigation and are issued by Natural England.

A Natural England mitigation licence application requires a Mitigation Method Statement and, in many cases, a Reasoned Statement of Application. The Mitigation Method Statement contains details of the proposed mitigation works. The Reasoned Statement needs to provide a rational and reasoned justification as to why the proposed development meets the requirements of the Conservation (National Habitats & c.) regulations 1994, namely Regulations 44(2)(e), (f) or (g), and 44(3)(a).

The Natural Environment and Rural Communities (NERC) Act 2006 lists the following bat species as species of principle importance under Section 41:

- Barbastelle *Barbastella barbastellus*
- Bechstein's bat *Myotis bechsteinii*
- Noctule *Nyctalus noctula*
- Soprano Pipistrelle *Pipistrellus pygmaeus*
- Brown Long-eared bat *Plecotus auritus*
- Greater Horseshoe *Rhinolophus ferrumequinum*
- Lesser Horseshoe *Rhinolophus hipposideros*

Section 40 requires every public body in the exercising of its functions 'have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity' (all biodiversity and not just section 41 species and habitats); therefore making these bats a material consideration in the planning process and requiring a detailed ecological bat survey before planning permission can be granted.

Birds

All wild birds, their nests and young are protected throughout England and Wales by the Wildlife & Countryside Act 1981 (as amended). It is illegal to kill, injure or take any wild bird, or damage or destroy the nest or eggs of breeding birds. The legislation applies to all bird species, common and rare.

In addition to the protection afforded to all wild birds, more vulnerable species listed on Schedule 1 of the Act receive enhanced protection when breeding. Schedule 1 species, including their dependent young, are protected from intentional or reckless disturbance whilst at or near the nest, in addition to the protection afforded the more common species.

The NERC Act offers further protection to the nests of some species that regularly re-use their nests, even when the nests are not in use.

The leading governmental and non-governmental conservation organisations in the UK have reviewed the population status' of 244 UK bird species. "Birds of Conservation Concern 4: the Red List for Birds" is the most recent publication summarising their findings. Three lists, Red, Amber and Green, have been produced based on the most up-to-date evidence available and criteria include conservation status at global and European levels and, within the UK: historical decline, trends in population and range, rarity,

localised distribution and international importance. These lists are a valuable resource when considering conservation priorities.

Trees

Trees may be protected on an individual or group level through a Tree Preservation Order (TPO). In order to carry out works to trees with a TPO, prior written consent must be obtained from the Local Planning Authority. Trees may also be protected through a condition of planning consent or designated conservation areas.

Hedgerows

The Hedgerow Regulations are made under Section 97 of the Environment Act 1995 and came into operation on 1st of June 1997. They aim to protect important hedgerows in the countryside by controlling their removal through a system of notification to the Local Planning Authority.

A hedgerow can only be considered for classification as “important” if it, or the hedgerow of which the section belongs to is over 20m in length (or which meets a hedgerow at either end) and has existed for 30 years or more.

Invasive plant species

A number of invasive, non-native plant species are listed under Schedule 9 (Part II) of the Wildlife and Countryside Act 1981 (as amended). The most commonly encountered listed species in ecological surveys are Japanese knotweed *Fallopia japonica*, Montbretia *Crocasmia x crocosmiiflora* and variegated yellow archangel *Lamiastrum galeobdolon subsp. argentatum*. Section 14(2) of this Act makes it an offence to *plant or otherwise cause to grow in the wild* any plant listed on Schedule 9 (Part II). These provisions are necessary to prevent the establishment of non-native species which may be detrimental to our native wildlife.

A number of invasive, non-native plants species are listed under Schedule 2 (Part II) of the Invasive Alien Species (Enforcement and Permitting) Order 2019. The most commonly encountered listed species in ecological surveys are Himalayan balsam *Impatiens glandulifera* and giant hogweed *Heracleum mantegazzianum*. Section 3 of this Act make it an offence to *plant or otherwise causes to grow in the wild* any plant which is listed on Schedule 2 (Part II). These provisions are necessary to prevent the establishment of non-native species which may be detrimental to our native wildlife.

Soil or plant material contaminated with non-native and invasive plants can cause ecological damage and may be classified as controlled waste. It is an offence to keep, treat or dispose of waste that could harm the environment or human health. If there is any doubt, contact the local authority or Environment Agency.

Otters

European otter *Lutra lutra* are offered full protection through the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017. If both national and international legislation are taken together, it is an offence to:

- Deliberately, intentionally or recklessly kill, injure or capture otters
- Deliberately, intentionally or recklessly disturb otters in such a way to be likely to significantly affect:
 - their ability to survive, breed, reproduce, rear or nurture their young
 - their ability to migrate
 - their local distribution or abundance
- Damage or destroy breeding sites or resting places of otters
- Intentionally or recklessly disturb sheltering otters, or obstruct access to their resting place
- Keep, transport, sell or exchange, or offer for sale or exchange any live or dead otter, any part of an otter or anything derived from otter

Penalties for offences include fines of up to £5000, plus up to six months imprisonment, for each offence committed.

Otters are also listed under Section 41 of the NERC Act (see bats section for further details).

Water voles

Water voles *Arvicola amphibius* are protected by the provisions of Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to:

- Intentionally kill, injure or take water vole
- Possess or control live or dead water vole or any part of a water vole
- Intentionally or recklessly damage destroy or obstruct access to any structure or place which a water vole uses for shelter or protection, or disturb water vole using such a place
- Sell, offer, advertise or transport live or dead water voles for sale

Licences are available from Natural England to allow activities that would otherwise be an offence, including:

- Scientific or educational purposes
- For the purposes of ringing or marking
- Conserving wild animals or introducing them into particular areas
- Preserving public health or public safety
- Preventing the spread of disease
- Preventing serious damage to any form of property or to fisheries

Penalties for offences include fines of up to £5000, plus up to six months imprisonment, for each offence committed.

Water voles are also listed under Section 41 of the NERC Act (see bats section for further details).

White-clawed crayfish

White-clawed crayfish *Austropotomobius pallipes* are protected under the Wildlife and Countryside Act 1981 (as amended). They are listed as a Schedule 5 species therefore part of Section 9(1) and section 9(5) apply. The Countryside and Rights of Way Act 2000 also strengthens their protection. It is offence to:

- Intentionally or recklessly kill or injure white-clawed crayfish
- Sell, offer, advertise or transport for sale a live or dead white-clawed crayfish

If a proposed development is likely to have an impact on white-clawed crayfish then the local statutory nature conservation organisation must be consulted.

Penalties for offences include fines of up to £5000, plus up to six months imprisonment, for each offence committed.

Their inclusion on the EC Habitats Directive allows areas to be designated as Special Areas of Conservation (SAC) for the presence of white-clawed crayfish. Such a designation brings legal protection under the Conservation of Habitats Regulations 2017, this includes how the site is managed and what development can occur on and in proximity to these sites.

White-clawed crayfish are also listed under Section 41 of the NERC Act (see bats section for further details).

Planning policy

The National Planning Policy Framework 2021 (NPPF) provides guidance on the interpretation of the law in relation to the natural environment and development.

National Planning Guidance is issued in the form of the National Planning Policy Framework 2021 (NPPF). The most relevant section is 15: Conserving and enhancing the natural environment.

Key relevant principles stated in 15: Conserving and enhancing the natural environment are;

- 174.** Planning policies and decisions should contribute to and enhance the natural and local environment by:
- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
 - b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
 - c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
 - d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
 - e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
 - f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.
- 179.** To protect and enhance biodiversity and geodiversity, plans should:
- a) 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 biodiversity⁶¹; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation⁶²; and
 - b) 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
- 180.** When determining planning applications, local planning authorities should apply the following principles:
- a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
 - b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
 - c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons⁶³ and a suitable compensation strategy exists; and
 - d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.