



# PRELIMINARY ECOLOGICAL APPRAISAL

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## Land at Broadway Farm, Broad Oak, Botley

On behalf of: Luken Beck MDP Ltd

|                   |                               |
|-------------------|-------------------------------|
| Prepared by       | GQ                            |
| Checked by        | JJ                            |
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# Contents

|                                                        | Page No.  |
|--------------------------------------------------------|-----------|
| <b>SUMMARY</b>                                         | <b>01</b> |
| <b>1.0 Introduction</b>                                | <b>02</b> |
| <b>2.0 Scope of the Survey</b>                         | <b>03</b> |
| <b>3.0 Methodology</b>                                 | <b>04</b> |
| <b>4.0 Results</b>                                     | <b>06</b> |
| <b>5.0 Evaluation, Constraints and Recommendations</b> | <b>15</b> |
| <b>6.0 Ecological Enhancements / Opportunities</b>     | <b>18</b> |
| <b>7.0 Conclusions</b>                                 | <b>19</b> |
| <b>8.0 References</b>                                  | <b>20</b> |

## FIGURES

Figure No. 1 – Site Habitat Plan

## TABLES

Table No. 01 - Categorisation Criteria

Table No. 02 – Statutory Protected Sites

Table No. 03 – Non-Statutory Protected Sites

Table No. 04 – Summary of Boundary Features

Table No. 05 – Building Assessment

Table No. 06 – Species Lists for Habitat Parcels

Table No. 07 – Target Notes

## APPENDICES

Appendix A – Site Photographs

## SUMMARY

Lizard Landscape Design and Ecology has been commissioned by Luken Beck MDP Ltd to undertake a Preliminary Ecological Appraisal of land at Broadway Farm, Broad Oak, Botley (*Grid Reference: SU 503 133 – hereafter referred to as 'the site'*). A preliminary ecological appraisal (PEA) was undertaken on 19<sup>th</sup> October 2021 to appraise the existing ecological resource within the land and the surrounding area.

The main body of the site is dominated by tarmac hard standing and amenity grassland with areas of unmaintained grassland, short ephemeral vegetation, defunct ornamental hedge, and a single existing building. The plant species on site were common and widespread species and no rare or unusual species were recorded. The habitats which are to be directly affected by the development proposals are of value within the site area only.

A summary of recommendations is as follows:

- *Reasonable Avoidance Measures - Undertake a 2 - phase cutting regime of any areas of unmaintained grassland or short ephemeral vegetation that will be lost as a result of the proposals, as outlined in Section 5.2.3;*
- *Employ a sensitive lighting scheme across the site with all light spill onto adjacent woodland, trees, and hedges avoided;*
- *Remove any areas of hedging outside the bird nesting season (Nesting season: March – August inclusive) or following inspection to ensure no active nests are present.*

Recommendations for enhancement which should be included within the scheme are detailed in section 6.0 below.

## 1.0 INTRODUCTION

- 1.1 Lizard Landscape Design and Ecology has been commissioned by Luken Beck MDP Ltd to undertake a Preliminary Ecological Appraisal of land at Broadway Farm, Broad Oak, Botley (*Grid Reference: SU 503 133 – hereafter referred to as ‘the site’*).
- 1.2 A preliminary ecological appraisal (*PEA*) was undertaken on 19<sup>th</sup> October 2021, to appraise the existing ecological resource within the land and the surrounding area. The *PEA* comprised a baseline survey conforming broadly to the *JNCC Ecology Phase 1 Habitat Survey* protocol, to identify the existing habitats. In addition, a protected species assessment was undertaken to identify the potential for European and nationally protected species within and adjacent to the land.
- 1.3 The field survey data and analysis contained in this report was undertaken and prepared by Guy Quartermaine (*Seasonal Ecologist; Lizard Landscape Design and Ecology*). The report has been reviewed by Joe Jackson (*BA (Hons) LA DipLA CMLI; Director; Lizard Landscape Design and Ecology*).

### **Site Information**

- 1.4 The survey area covers c. 0.5 hectares (ha) of tarmac hardstanding, improved grassland, short ephemeral vegetation, tall ruderal and a single existing building, located towards the north-western edge of Botley. The site is enclosed to the north and east by an area of woodland, classified on the priority habitats inventory as deciduous woodland; and to the west the site is bordered by CCW Services Ltd; a warehouse and storage facility; and to the south there is a further parcel of improved grassland.

### **Surrounding Landscape**

- 1.5 The surrounding landscape is a mix of agricultural land and built-up towns and villages, with the built mass of Hedge End extending for over 2.5 kilometres (km) to the west, while the properties of Botley extend c. 1.1 kilometres (km) to the east. To the north and south the landscape becomes more rural in character made up of agricultural fields, hedgerows, parcels of woodland and villages. Land directly to the west is composed of woodland - designated as *Priority Habitat Inventory - Deciduous Woodland* and recorded on the *National Forest Inventory as Broadleaved Woodland*.

- 1.6 There is a single waterbody located within 500.0 metres (m) of the site; however, no waterbodies are located within 250.0 m of the site area or within the site boundaries.

### ***Development Proposals***

- 1.7 It is understood that the development proposals include the extension of the existing commercial area at Broadway Farm to the north-east of the existing commercial area. The extension would involve the loss of c. 900 sq. metres (m<sup>2</sup>) of improved grassland and ephemeral vegetation to allow for an extension of hard standing parking areas for emergency response vehicles and ambulances, as well as the construction of a new 560 sq. metre (m<sup>2</sup>) warehouse unit for the storage of NHS materials.

## **2.0 SCOPE OF THE SURVEY**

- 2.1 The aim of the preliminary ecological appraisal survey has been:
- *To identify the main habitat types present on site;*
  - *To assess the likely importance of the habitats present;*
  - *To assess the likely presence of protected species;*
  - *To provide recommendations for surveys of protected species where necessary;*
  - *To list ecological constraints present on the site;*
  - *To highlight any ecological opportunities and list potential enhancements for inclusion within the scheme.*

### 3.0 METHODOLOGY

#### 3.1 Desk Study

- 3.1.1 The Multi-Agency Geographical Information Centre (*MAGIC*) was consulted for information regarding priority habitats and statutory designated sites within 2.0 km of the proposed construction site.

#### 3.2 Site Visit

- 3.2.1 A preliminary ecological appraisal was undertaken on 19<sup>th</sup> October 2021, and the site subjected to an ecology survey using guidelines set out in the *Handbook for Phase 1 Habitat Survey – A Technique for Environmental Audit (JNCC, 2003)*. This has resulted in a Site Habitat Plan (*Figure No. 01*) and Species Lists for Habitat Parcels (*Table No. 06*).
- 3.2.2 Habitats within the land were classified and the presence, or potential presence, of certain protected and / or notable species of flora and fauna were identified. This involved identifying features that may be used by protected species, potential foraging areas, and other signs of use. Water bodies were recorded wherever possible, within 500.0 m of the proposed development site.
- 3.2.3 Due to the field survey consisting of only one site visit, certain species, particularly some of the flowering plants, may not have been visible or may have been otherwise inconspicuous at the time of the survey and hence overlooked. These are accepted constraints associated with the standard *Phase 1 Habitat Survey Methodology*.
- 3.2.4 The results are summarised and accompanied in large part by photographic evidence contained in *Appendix A – Site Photographs*. Recommendations for further investigation and survey are made in the following report.
- Preliminary Bat Roost Assessment***
- 3.2.5 A Preliminary Bat Roost Assessment was undertaken on 19<sup>th</sup> October 2021 by an experienced bat surveyor who undertook an external assessment of all buildings and trees within the proposed construction zone.

3.2.6 The bat surveyor assessed the existing buildings visually and searched for evidence such as:

- Grease Marks;
- Urine Stains;
- Bat Droppings;
- Feeding Remains;
- Dead or Live Bats.

3.2.7 Trees were visually identified from the ground, using binoculars where necessary, for features that could be used by bats such as:

- Woodpecker Holes;
- Knot Holes;
- Tear-outs;
- Flush Cuts;
- Double Leaders.

3.2.8 Once features had been assessed the trees were then categorised in accordance with *Table 4.1 of the Bat Conservation Trust's Good Survey Guidelines (2016)*:

**Table No. 01 – Categorisation Criteria**

| Category          | Buildings                                                                                                                             | Trees                                                                                                  |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <b>Negligible</b> | No suitable features identified.                                                                                                      | No suitable features identified.                                                                       |
| <b>Low</b>        | A structure which could be used opportunistically, however, are not likely to be used on a regular basis / by a large number of bats. | Tree of sufficient size / age to support bat roost features; but with none identified from the ground. |
| <b>Moderate</b>   | A building with features which, could be used regularly by a small number of bats.                                                    | Tree with features which, may support a bat roost of low conservation status.                          |
| <b>High</b>       | A building with features suitable for use by a large number of bats on a regular basis.                                               | A tree with several potential bat roost sites that are suitable for use by a large number of bats.     |

## 4.0 RESULTS

### 4.1 Desk Study – Designated Sites

- 4.1.1 The following designated sites are not necessarily representative of the existing site's ecology but are indicative of the ecological context of the surrounding area; a factor that may be important when assessing the presence / absence potential of certain species groups.

#### **Statutory Protected Sites**

- 4.1.2 The following potential zones of influence have been utilised when identifying designated sites in the local area: Local Nature Reserves and Sites of Special Scientific Interest (*within 2.0km of the site*) and European Designated sites including SAC's and SPA's (*within 10.0 km of the site*). Statutory protected areas in the vicinity of the site include:

**Table No. 02 – Statutory Protected Sites**

| Site                                        | Description                                                                                                                                                                                                                                                                                                | Location   |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| Solent and Southampton Water<br>RAMSAR, SPA | The area is an important resort for surface-feeding duck, with winter populations of 2,000 wigeon; <i>Anas penelope</i> , 1,500 teal <i>Anas crecca</i> , and smaller numbers of other surface feeding ducks.                                                                                              | 1.08 km S  |
| River Itchen SAC                            | 303 (ha) of wetland habitats, grassland, and broadleaved woodland. The river itself is a classic sub-type 1 chalk river and supports strong populations of Bullhead ( <i>Cottus gobio</i> ) and southern damselfly ( <i>Coenagrion mercuriale</i> ); the banks are dominated by <i>Ranunculus</i> species. | 5.33 km NW |
| Upper Hamble Estuary and Woods SSSI         | 151 (ha) of salt marsh, reed-swamp, grassland, scrub, and ancient semi-natural woodland. A narrow zone of mudflats here supports a wide range of littoral species including marine worms, crustaceans, and molluscs.                                                                                       | 1.22 km SE |

**Table No. 02 – Statutory Protected Sites – Cont'd**

| Site           | Description                                                                                                                                                                                                               | Location  |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| Manor Farm LNR | 144 (ha) of fields and woodland running along the River Hamble. The site overlaps the north-western extent of Solent and Southampton Water RAMSAR, SPA and is owned and run by Hampshire County Council.                  | 1.08 km S |
| Wildern LNR    | 9.66 (ha) of Wetland Habitat – containing a mosaic of flooded meadows, ponds, woodland, and mire. Supports a rich assemblage of birds and invertebrates including lesser redpoll, brambling, and large skipper butterfly. | 1.34 km W |

- 4.1.3 The site is located within the *Impact Risk Zone of Solent and Southampton Water RAMSAR, SPA, SAC, and the River Itchen SAC*. The proposed development does not meet the criteria however which would require the LPA to consult with Natural England regarding potential impacts upon nearby protected sites.

#### **Non-Statutory Protected Areas**

- 4.1.4 *Sites of Nature Conservation Importance (SNCIs)* are designations applied to the most important non-statutory nature conservation sites. They are recognised by the *National Planning Policy Framework (2018)* and as such are material considerations when assessing planning applications. The following SNCIs were identified within 2.0 km of the site:

**Table No. 03 – Non-Statutory Protected Sites**

| Site                                       | Location   |
|--------------------------------------------|------------|
| Eastleigh Bottom Copse / Bushy Copse       | 0.4km NW   |
| Eastleigh Woodhouse Gully Wood             | Adjacent E |
| Winchester Wangfield Copse                 | 1.4km NE   |
| Eastleigh Botley Mill Woodland             | 1.1km E    |
| Eastleigh Newhouse Farm Woodland and Swamp | 1.0km NE   |
| Eastleigh Marshy Grassland, Botley         | 1.3km NE   |
| Eastleigh Holly Tree Farm, Wood            | 1.6km NE   |
| Eastleigh Holly Tree Farm Meadow           | 1.6km NE   |
| Eastleigh Maddox Farm Meadows              | 1.7km NE   |

**Table No. 03 – Non-Statutory Protected Sites – Cont'd**

| Site                                  | Location  |
|---------------------------------------|-----------|
| Eastleigh Golf Course Meadow & Swamp  | 1.9km NE  |
| Eastleigh Botley Park Wood            | 1.6km NE  |
| Winchester Turnmill & Pinkmead Copses | 1.8km SE  |
| Eastleigh Church Lane Meadows         | 1.02km SE |
| Eastleigh Gould Copse                 | 1.0km SE  |
| Eastleigh Tanhouse Meadow             | 1.3km SW  |
| Eastleigh Brigit Mary Garden          | 1.9km SW  |
| Eastleigh Hogsty Corner               | 2.0km W   |

## 4.2 Habitats

4.2.1 Within 2.0 km of the site there are *Priority Habitats* of *Ancient and Semi-Natural Woodland, Deciduous Woodland, Coastal and Floodplain Grazing Marsh, Good Quality Semi-Improved Grassland, Wood-Pasture and Parkland, Purple Moor Grass and Rush, Mudflats and Lowland Fens*.

4.2.2 Habitats within and adjacent to the land include:

- *Hardstanding;*
- *Improved Grassland;*
- *Existing Buildings;*
- *Introduced Shrubs;*
- *Short Ephemeral;*
- *Tall Ruderal;*
- *Deciduous Broadleaved Woodland;*
- *Dry Ditch.*

### ***Hardstanding***

4.2.3 The northern section of the site consists of a large area of tarmac hardstanding currently used for the storage and parking of NHS vehicles. This habitat is of **negligible value**.

### ***Improved Grassland***

4.2.4 The site is dominated by improved grassland maintained at a short length. Species composition was typical of the habitat type with grasses including bent (*Agrostis* sp.), smooth meadow-grass (*Poa pratensis*), fescue (*Festuca* sp.) with rye-grass (*Lolium perenne*), dominating. Toward the eastern boundary there is an area with sections of deadwood laying on the ground;

the grass around this area of deadwood is unmaintained.

- 4.2.5 The raised banks bordering the eastern boundary of the site contained are unmaintained and contain slightly higher levels of species diversity. Grasses within these areas included fescue (*Festuca sp.*), rye-grass (*Lolium perenne*) and Yorkshire fog (*Holcus lanata*) and cock's foot (*Dactylis glomerata*) with locally frequent areas of creeping buttercup (*Ranunculus repens*) and common daisy (*Bellis perennis*). Rarely, there is ivy leaved speedwell (*Veronica polita*), purple archangel (*Lamium purpureum*) and white clover (*Trifolium repens*). This habitat is of **low value**.

#### **Existing Building**

- 4.2.6 A single, small shed, with a flat roof, located toward the western boundary, was identified within the proposed construction zone. The building was of a wooden construction and its characteristics are summarised in Section 4.3 below. This habitat is considered to be of **negligible value**.

#### **Introduced Shrubs**

- 4.2.7 The raised bank running along the western boundary was planted with a young, scrappy, single species hedge consisting of laurel (*Prunus laurocerasus*). This common and widespread habitat is of no more than **low site value**.

**Table No. 04 – Summary of Boundary Features**

| <b>Ref.</b> | <b>Description</b>                                                                                                                                                                                                                      | <b>Qualifying Features?</b> | <b>Important Hedgerow?</b> |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|----------------------------|
| <i>H 1</i>  | <i>Western defunct hedgerow which reaches a height of c. 1.5m. This hedge runs along an area of raised bank which forms the boundary between the site and existing industrial units to the west. This hedge is dominated by laurel.</i> | <i>None</i>                 | <i>No</i>                  |

- 4.2.8 The hedgerows which mark the western boundary of the site are considered to be of **low value** on account of its defunct characteristics and limited species diversity.

### ***Short Ephemeral***

- 4.2.9 An area of short ephemeral vegetation is situated toward the centre of the western boundary of the site. This area is dominated bristly ox tongue (*Helminthotheca echiodides*) and ragwort (*Jacobaea vulgaris*). Occasionally, there is common daisy (*Bellis perennis*). This common and widespread habitat is of no more than **low site value**.
- 4.2.10 A raised bank separates the northern hardstanding areas from the improved grassland to the south, as well as the northern area of hardstanding and the industrial estate to the west. These areas are covered in ephemeral vegetation consisting of bristly ox tongue (*Helminthotheca echiodides*) and ragwort (*Jacobaea vulgaris*), dominating, and frequent horseweed (*Erigeron canadensis*). Rarely, there was purple archangel (*Lamium purpureum*), scarlet pimpernel (*Anagallis arvensis*). This common and widespread habitat is of no more than **low site value**.

### ***Tall Ruderal***

- 4.2.10 A raised bank separates the northern hardstanding areas from the industrial development to the west. To the base of these raised banks there are patchy areas of ruderal species dominated by common nettle (*Urtica dioica*). This common and widespread habitat is of no more than **site value**.

### ***Deciduous Broadleaved Woodland***

- 4.2.11 Adjacent to the northern and eastern boundaries of the site there is a c. 1.6-hectare (ha) parcel of deciduous woodland classified in the *National Forest Inventory as Broadleaved Woodland*. Species composition here was dominated by pedunculate oak (*Quercus robur*) and ash (*Fraxinus excelsior*) with frequent hawthorn (*Crataegus monogyna*). Occasionally, there was silver birch (*Betula pendula*), field maple (*Acer campestre*), cherry (*Prunus avium*) and blackthorn (*Prunus spinosa*). The understory here was dominated by ivy (*helix hedera*) and bramble (*Rubus fruticosus*). This habitat is considered to be of **local value**.

### ***Dry Ditch***

- 4.2.12 Beyond the eastern boundary, laying between a wire mesh fence and the adjacent woodland, there is a ditch, found to be dry at the time of survey. The base of this ditch was dominated by bramble (*Rubus fruticosus*). This common and widespread habitat is of no more than **site value**.

### 4.3 Protected Species Assessment

#### *Amphibians*

##### *Desk Study*

- 4.3.1 A single record of GCN exists within 2.0 km of the site, located c. 1.9 km south-west of the proposed development.

##### *Site Assessment*

- 4.3.2 The small area of unmaintained grass and standing dead wood toward the eastern boundary of the site, and the ephemeral vegetation covering the raised banks to the margins of the site, do provide some limited areas of suitable terrestrial habitat for GCN and common toad.
- 4.3.3 A single waterbody (P1) was identified within 500 m of the proposed development site. The pond covers an area of c. 650 sq metres (m<sup>2</sup>) and is in a fenced off area within private grounds, approximately 220 metres (m) to the east. It was not possible to access this pond at the time of survey. No records of GCN have been reported at this location and it is separated from the site by a tributary of the River Hamble, located c. 138.0 metres (m) to the west. The pond is located c. 2.8 km from the nearest confirmed breeding pond and all confirmed breeding sites within a 500m radius lay beyond either the River Hamble to the south and west, or beyond the northern extent of Southampton to the north.
- 4.3.4 Although GCN are known to disperse across large fields, there are no ponds located beyond the western boundary of the site until you reach the built mass of Hedge End and as such, it is considered that any GCN present within P1 are more likely to disperse north or south. Although it is not possible to entirely rule out the potential of GCN presence within the site boundaries, based on the above factors it is considered they are 'likely' absent within the proposed construction zone. Given the absence of suitable waterbodies on site, and the relative isolation of the only other waterbody within 500 metres (m), the site is considered to be of no more than **low site value** to commuting GCN.

## Reptiles

### Desk Study

- 4.3.5 The data search returned numerous records of slow worm and common lizard, as well as a limited number of records for grass snake and adder, within 2.0 km of the site.

### Site Assessment

- 4.3.6 The small areas of unmaintained grassland found along the eastern boundary of the site, and patchy areas of tall ruderal toward the north-west of the site, do provide some limited optimal habitat for common, widespread reptiles species such as slow worm and grass snake. Due to the small extent of the suitable areas the area is considered to be of **low value** to reptiles.

## Bats

### Desk Study

- 4.3.6 Common Pipistrelle (*Pipistrellus pipistrellus*), Soprano Pipistrelle (*Pipistrellus pygmaeus*), Noctule (*Nyctalus noctula*), Daubenton's (*Myotis daubentonii*) and Long-eared (*Plecotus* sp) bats have been recorded within 2.0 km of the site area.
- 4.3.7 All species of bat and their roosts are protected under *Regulation 41* of the *Conservation of Habitats and Species Regulations 2017* and *Section 9* of the *Wildlife and Countryside Act 1981*. It is an offence for anyone intentionally to kill, injure or handle a bat, to possess a bat (*whether live or dead*), disturb a roosting bat, or sell or offer a bat for sale without a licence. It is also an offence to damage, destroy or obstruct access to any place used by bats for shelter, whether they are present or not.

### Site Assessment

- 4.3.8 The existing building on site was assessed for it's potential to support roosting bats, a summary of the assessment is shown below:

**Table No. 05 – Building Assessment**

| Ref. | Description                                                                                                                                                      | Category     |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| B 01 | A small wooden shed with a flat roof located toward the eastern boundary of the site. The shed was inspected thoroughly, and no evidence of bats was identified. | 'Negligible' |

- 4.3.9 No trees offering roosting potential were identified within the site boundaries.
- 4.3.10 The woodland laying adjacent to the eastern boundary is considered likely to support foraging and commuting by numerous bat species. This habitat is likely to be of **local importance** to the local bat community, however the grassland and hardstanding on site is considered to be of **negligible value**.

### ***Dormouse***

#### *Desk Study*

- 4.3.11 The data search returned a single record of dormouse within 2.0 km of the site, with the closest located 1.5km to the north-east.

#### *Site Assessment*

- 4.3.12 The defunct hedgerow marking the western boundary of the site contains no favoured food plants such as hazel, and the lack of mature trees or scrub on site means there is little suitable cover for hibernation. Hedgerows along the western boundary of the site are discontinuous and not functionally connected to areas of suitable dormouse habitat in the wider environment. The woodland beyond the eastern boundary does offer some optimal habitat. Due to the paucity of records of dormice in the locality, and the absence of suitable habitat, the site itself is considered to be of **negligible value** to dormice.

### ***Badger***

#### *Desk Study*

- 4.3.13 Badger records are confidential and were therefore not included within the data search.

#### *Site Assessment*

- 4.3.14 No evidence of badger tracks, snuffle holes or latrines were recorded within the site boundaries. The area is considered to be of **negligible / low value** for foraging and commuting badgers.

**Water Vole***Desk Study*

- 4.3.15 The data search returned no records of water vole within 2.0 km of the site.

*Site Assessment*

- 4.3.16 A dry ditch, filled with bramble scrub and tall ruderal vegetation, borders most of the length of the eastern boundary. No tracks, feeding remains or latrines were recorded within these areas, and, at the time of survey, these areas were completely dry. Although the adjacent woodland does offer both suitable shelter and preferred food types for hazel dormouse, no ditches, offering suitable habitat, were located on site. The site is of **negligible value** to water vole.

**Other Mammals**

- 4.3.17 Numerous records of common mammals including rabbit exist within 2.0 km of the site area.

**Birds***Desk Study*

- 4.3.18 Breeding birds of conservation concern within 2.0 km of the site include skylark, song thrush, redwing, yellowhammer, and house sparrow.

*Site Assessment*

- 4.3.19 Optimal nesting habitat is limited to the adjacent western woodland. The area overall is likely to be of **low value** to breeding / foraging birds.

**Invertebrates***Desk Study*

- 4.3.20 The data search returned records of numerous species of invertebrates within 2.0 km of the site including holly blue butterflies and stag beetle.

*Site Assessment*

- 4.3.21 Suitable habitat for invertebrates includes the eastern boundary hedgerow and a small area of standing deadwood located toward the western boundary. The site in general lacks the floral diversity to support a good range of invertebrates and is likely to be of **low value only**.

***Others***

- 4.3.22 No suitable habitat for any other protected species was recorded on site.

**4.4 Survey Constraints / Considerations**

- 4.4.1 No major constraints which would cast doubt on these results were encountered, full access was available to all areas of the site.

**5.0 EVALUATION, CONSTRAINTS AND RECOMMENDATIONS****5.1 Habitats**

- 5.1.1 The main body of the site is dominated by improved grassland, short ephemeral vegetation and hardstanding; the plant species on site were common and widespread species; no rare or unusual species were recorded. The habitats which are to be directly affected by the development proposals are of **value within the site area** only.

**5.2 Protected Species*****Amphibians***

- 5.2.1 The amenity grassland and ephemeral vegetation to the south of the site does provide some limited commuting routes for amphibians, however due to the lack of suitable breeding ponds located on site, and the relative isolation of the only ponds located within a 500-metre radius, it is considered that no further surveys will be required. Reasonable Avoidance Measures should be undertaken during works, such as avoiding night works and storing loose materials on pallets or hard surfaces. If GCN are found on site, then all works shall cease, and a Suitably Qualified Ecologist (SQE) will be contacted for advice.

**Reptiles**

- 5.2.2 Limited areas of optimal reptile habitat exist along and at the base of areas of raised bank within the site. Numerous records exist of common reptile species within 2.0 km of the site with the closest being recorded 350.0 m to the north-east. However, the area concerned is very limited and the likelihood of significant use by reptiles is considered to be low. To mitigate any potential harm occurring to reptiles during the construction phase, a simple 2 - phase vegetation cutting regime should be applied to any areas of unmaintained grass or tall ruderal that is to be lost as a result of the proposals as outlined in Section 5.2.3 below.
- 5.2.3 To prevent any reptiles being intentionally harmed, as a result of the development, the existing vegetation within the proposed site should be cut in two stages. The first stage, which should be observed by a suitably trained ecologist, should reduce the height of vegetation to 150 mm. After a 24hr delay, the second cut should reduce vegetation height to less than 50 mm. The work should begin at the western boundary and proceed toward the east and south so as to encourage any reptiles present toward other areas of suitable habitat.
- 5.2.4 Any areas of standing dead wood that are to be removed as part of the development should be moved by hand. If any protected species are discovered during this process all work should cease until a suitable mitigation strategy can be implemented.

**Bats**

- 5.3.5 No roosting potential was observed on site and therefore no further phase 2 surveys are required. Proposals should avoid nocturnal illumination of the site altogether, however if this is not possible lighting proposals should be in line with practice guidance in relation to bats (BCT & ILP, 2018) and incorporate features such as PIR and downward facing lights. All light spill upon the eastern boundary should be avoided. Furthermore, construction should avoid nocturnal illumination of the site.
- 5.3.6 There is the opportunity to provide ecological enhancements for bats, such as the installation of bat boxes on boundary trees or incorporated into the fabric of the proposed new building. Bat boxes provide roosting opportunities for bats and should be considered as part of proposals.

***Dormice***

- 5.2.7 Although limited records of dormouse exist within the locality, the site itself offers little optimal habitat for dormice. Proposals do not affect habitat of any value to dormice; no constraints have been identified.

***Badgers***

- 5.2.8 No evidence of badgers was found within the site. However, much of the surrounding landscape to the north is open, agricultural land, and the eastern boundary is bordered by a large parcel of woodland. There is limited potential for badgers to use the site for foraging commuting. The proposed site is considered to be of low value to foraging / commuting badgers. Care should be taken during construction to ensure that badger cannot become trapped in footings, pipework, or trenches.

***Other Mammals***

- 5.2.9 All wild mammals are protected against intentional crushing or asphyxiation under the Wild Mammals (Protection) Act 1996. Care should be taken when excavating around any rabbit holes etc to ensure no wild mammal is intentionally harmed.

***Breeding Birds***

- 5.2.10 Removal of suitable nesting habitat (*trees / hedges*) should be undertaken outside the nesting season (*avoiding March-August*) or following inspection by a suitability qualified ecologist to ensure no active nests are present.

***Invertebrates***

- 5.2.11 Any areas of standing deadwood, that are to be removed as part of the development, should be moved by hand. If any protected species are discovered during this process all work should cease until a suitable mitigation strategy can be implemented.

### **Summary of Recommendations**

5.2.12 A summary of recommendations is as follows:

- *Reasonable Avoidance Measures - Undertake a 2-phase cutting regime of any unmaintained grassland, tall ruderal or short ephemeral vegetation that will be lost as a result of the proposals, as outlined in Section 5.2.3;*
- *Employ a sensitive lighting scheme across the site with all light spill onto adjacent woodland, trees, and hedges avoided;*
- *Remove any areas of hedging outside the bird nesting season (Nesting season: March – August inclusive) or following inspection to ensure no active nests are present.*

## **6.0 ECOLOGICAL ENHANCEMENTS / OPPORTUNITIES**

6.1 The design of the proposed development should consider ecological enhancements for the benefit of wildlife in line with the *National Planning Policy Framework* and *Local Planning Policy*. Recommendations for ecological enhancements that should be considered as part of development proposals include:

- *The use of flowering plants as listed within the RHS 'Plants for Pollinators' plant list to within the soft landscape scheme provide year-round interest for invertebrates;*
- *The provision of nesting boxes for a variety of bird species within the northern aspects of the proposed new building;*
- *Plant new species-rich hedging to the eastern boundary of the site to create a buffer between the site and valuable woodland habitats to the east. Species should include hazel, blackthorn, crab apple, dogwood, oak, spindle, and guelder rose;*
- *The use of log and compost piles in habitat creation areas to provide refugia for reptiles and amphibians;*

## **7.0 CONCLUSIONS**

- 7.1 No evidence was recorded on site which would suggest that the development proposals are likely to have a major adverse effect upon biodiversity. The main body of the site is formed of rank amenity grassland with limited species diversity. This habitat is of limited ecological value.
- 7.2 With appropriate mitigation the proposed development will have a negligible impact upon biodiversity in the local area while the proposed enhancements above will result in biodiversity gains in accordance with national and local planning policy.

## 8.0 REFERENCES

*JNCC: Handbook for Phase 1 Habitat Survey – A Technique for Environmental Audit; (2003);*

*Collins J (ed): Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd ed.) The Bat Conservation Trust (2016);*

*Mitchell-Jones and McLeish: Bat Workers Manual; JNCC, 3rd Edition (2004);*

*Streeter, D.: The Most Complete Guide to the Flowers of Britain and Ireland; Harper Collins, London (2010);*

*[www.magic.gov.uk](http://www.magic.gov.uk).*

**Table No. 06 – Species List for Habitat Parcels****Improved Grassland**

| <b>Common Name</b>   | <b>Scientific Name</b>      | <b>DAFOR</b> |
|----------------------|-----------------------------|--------------|
| Bent                 | <i>Agrostis sp.</i>         | <b>F</b>     |
| White Clover         | <i>Trifolium repens</i>     | <b>R</b>     |
| Fescue               | <i>Festuca sp.</i>          | <b>F</b>     |
| Cocks-foot           | <i>Dactylis glomerata</i>   | <b>O</b>     |
| Creeping Buttercup   | <i>Ranunculus repens</i>    | <b>LF</b>    |
| Curled Dock          | <i>Rumex crispus</i>        | <b>O</b>     |
| Dandelion            | <i>Taraxacum officinale</i> | <b>O</b>     |
| Ivy-leaved Speedwell | <i>Veronica polita</i>      | <b>R</b>     |
| Nettle               | <i>Urtica dioica</i>        | <b>R</b>     |
| Perennial Ryegrass   | <i>Lolium perenne</i>       | <b>D</b>     |
| Thistle              | <i>Cirsium sp.</i>          | <b>O</b>     |
| Yorkshire fog        | <i>Holcus lanatus</i>       | <b>F</b>     |
| Purple Archangel     | <i>Lamium purpureum</i>     | <b>R</b>     |
| Smooth Meadow-Grass  | <i>Poa pratensis</i>        | <b>O</b>     |

**Introduced Shrubs**

| <b>Common Name</b> | <b>Scientific Name</b>     | <b>DAFOR</b> |
|--------------------|----------------------------|--------------|
| Cherry Laurel      | <i>Prunus laurocerasus</i> | <b>D</b>     |

**Short Ephemeral**

| <b>Common Name</b> | <b>Scientific Name</b>          | <b>DAFOR</b> |
|--------------------|---------------------------------|--------------|
| Bristly Ox Tongue  | <i>Helminthotheca echioides</i> | <b>LD</b>    |
| Common Daisy       | <i>Bellis perennis</i>          | <b>O</b>     |
| Creeping Thistle   | <i>Cirsium arvense</i>          | <b>O</b>     |
| Curled Dock        | <i>Rumex crispus</i>            | <b>O</b>     |
| Ragwort            | <i>Jacobaea vulgaris</i>        | <b>LD</b>    |

**Tall Ruderal**

| <b>Common Name</b> | <b>Scientific Name</b> | <b>DAFOR</b> |
|--------------------|------------------------|--------------|
| Common Nettle      | <i>Urtica dioica</i>   | <b>D</b>     |

**Table No. 06 – Species List for Habitat Parcels cont.....****Broadleaved Woodland**

| <b>Common Name</b> | <b>Scientific Name</b>    | <b>DAFOR</b> |
|--------------------|---------------------------|--------------|
| Pedunculate Oak    | <i>Quercus robur</i>      | <b>D</b>     |
| Ash                | <i>Fraxinus excelsior</i> | <b>D</b>     |
| Hawthorn           | <i>Crataegus monogyna</i> | <b>F</b>     |
| Silver Birch       | <i>Betula pendula</i>     | <b>O</b>     |
| Field Maple        | <i>Acer campestre</i>     | <b>O</b>     |
| Cherry             | <i>Prunus avium</i>       | <b>O</b>     |
| Blackthorn         | <i>Prunus spinosa</i>     | <b>O</b>     |

**D – Dominant; A – Abundant; F – Frequent; O – Occasional; R – Rare; L – Locally**

**Table No. 07 – Target Notes**

| <b>Ref</b> | <b>Feature</b>                          | <b>Description</b>                                                                                                                                    |
|------------|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| TN01       | Small area of suitable reptile habitat. | Area of rough grass along western boundary and toward eastern boundary. Small areas of standing dead wood within rough grass toward eastern boundary. |
| TN02       | Existing Building                       | Small wooden shed.                                                                                                                                    |



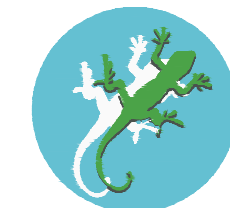
- Legend**
- Site Boundary.
  - Target Note.
  - Existing Building.
  - Improved Grassland.
  - Bare/Hard Ground.
  - Deciduous Woodland
  - Dry Ditch.
  - Ephemeral.
  - Introduced Shrub.

**Notes:** The original of this drawing was produced in colour - a monochrome copy should not be relied upon.

Habitat areas are indicative and for information only - please do not scale from this drawing.

### Planning Issue

| Rev | Description    | Date     | Initials |
|-----|----------------|----------|----------|
|     |                |          |          |
|     |                |          |          |
|     |                |          |          |
| 00  | Planning Issue | 29.10.20 | JH       |

 **LIZARD**  
Landscape Design and Ecology  
The Old Bank, 34 South Street, Tarring, Worthing, West Sussex, BN14 7LH  
T. 01903 216033 E. lizardlandscape@btconnect.com W. lizardlandscapeecology.com

|                                                                              |             |                |                  |
|------------------------------------------------------------------------------|-------------|----------------|------------------|
| Client<br>Luken Beck MDP Ltd                                                 |             |                |                  |
| Project Title and Location<br><b>Broadway Farm</b><br>Broad Oak, Southampton |             |                |                  |
| Drawing Title<br><b>Figure No.1 - Site Habitat Plan</b>                      |             |                |                  |
| Scale<br>1:250@A1                                                            | Drawn<br>LB | Approved<br>GQ | Date<br>29.10.21 |
| Drawing No<br>LLD2481-ECO-FIG-001                                            |             |                | Revision<br>00   |

**Figure No.1- Site Habitat Plan**  
**Broadway Farm, Broad Oak, Southampton**

## **Appendix A – Site Photographs**



**Photograph 01 – View across southern section of the site, from south to north. Scrappy laurel hedge on raised bank visible to the left. Ambulance parking are visible to the background.**



**Photograph 02 – View across amenity grassland. Adjacent western woodland visible beyond.**



**Photograph 03 – View of raised bank separating hardstanding areas to the north and grassland areas to the south. Banks covered in short ephemeral growth.**



**Photograph 04 – A break in the raised bank separating the northern and southern sections of the site.**



**Photograph 05 – Existing building toward eastern section of the site. Area of rough grass and standing dead wood visible to the right.**



**Photograph 07 – Existing area of hardstanding being used to store NHS vehicles. Western boundary with raised bank visible beyond.**



**Photograph 08 – Northern boundary with fencing and vegetation covered bank to the right.**



**Photograph 09 – View across northern area of existing hardstanding, looking from north-west to south-east.**



**Photograph 10 – Current access route into northern section of the site, between two sections of raised bank.**