PRELIMINARY ECOLOGICAL APPRAISAL
FOR A PROPOSED RELOCATION OF A GRAIN STORE AT
LAND OFF FOWLMERE ROAD, FOXTON, CAMBRIDGESHIRE, CB22 6TA

Prepared For

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REVISION RECORD

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AMENDMENT RECORD

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<td>V3</td>
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<td>Updated site name &amp; address, updated site area, incorporated updated layout plan in Appendix 3, added revised issue date for report</td>
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## EXECUTIVE SUMMARY

### Ecological Survey Data Review

**Report Description**

Geosphere Environmental Limited was commissioned by Hill Residential Ltd, to undertake a Preliminary Ecological Appraisal of the site for a Grain Store on Land off Fowlmere Road, Foxton, Cambridgeshire CB22 6TA.

The site is located at National Grid Reference, (NGR,) TL 421471. The report relates to the proposed relocation of a grain store.

The proposed development covers an area of approximately 1.8 hectares (ha). This and the immediate surrounding area were surveyed.

**Summary of Main Findings**

The site predominantly comprises of arable land, with a hedgerow running along the western border containing scattered trees. There is also a 5m wide field margin of semi improved grassland, running along the western and northern boundaries of the site.

The site is not considered suitable for Water Voles, Otters, Great Crested Newts, Badgers, Hazel Dormouse or notable plants or invertebrates of significance. There are suitable features within the area that could be affected by the proposed development, which may provide habitat for birds, bats and transient reptiles.

- **Foraging Bats**: The hedgerow and scattered trees provide suitable foraging and commuting habitat.

- **Birds**: The hedgerow and scattered trees provide suitable nesting habitat for breeding birds during the breeding season.

- **Reptiles**: The field margins on site appear suitable for a transient population of reptiles.

The proposed development will not adversely affect any statutory or non-statutory designated sites.

**Ecological Constraints**

The potential constraints to development could be the unmitigated removal of the boundary hedgerow and scattered trees, which are considered potential habitat for nesting birds and foraging, commuting bats, and the grass margins, which are considered suitable for a transient population of reptiles.

**Recommendations**

No Phase 2 protected species surveys are recommended for this site.

If the hedgerow or sections of hedgerow is to be removed, removal should be undertaken outside the main bird nesting season considered to be March to August inclusive. However, if this is not possible then a suitably qualified ecologist should undertake a nesting bird survey immediately prior to removal.

Vegetation clearance, (i.e. grass margins), is best undertaken during the spring/summer, (April-October), during the reptile active season.

**Biodiversity Enhancement Opportunities**

There are landscaping proposals for the site which include planting new hedgerows around the site boundaries where none exist currently. The proposals also include orchard planting.

It is recommended that native species local to the area are considered for the new hedgerows and hedgerow trees and should include fruit and berry producing varieties.

**Conclusions**

The site has the potential to support foraging and commuting bats, nesting birds and transient populations of reptiles. Provided the recommendations within Section 6 of this report are undertaken and mitigation measures adhered to, then potential negative impacts on protected species, if present, will be negligible.

These enhancements could result in a beneficial impact of site significance.
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1. INTRODUCTION

1.1 General

Geosphere Environmental Limited was commissioned by Hill Residential Ltd, to undertake a Preliminary Ecology Appraisal of the site at the Grain Store, on Land off Fowlmere Road, Cambridgeshire, CB22 6TA. Any limitations and conditions pertaining to the report are stated within Appendix 1, with a full list of technical references provided within Appendix 2.

The report relates to the proposed development of the 1.5 hectare, (ha), site for the relocation of a grain store. The site is located at National Grid reference, (NGR) TL 421471.

The survey boundary is shown on Figure 1 below:

![Figure 1 - The survey boundary is outlined in red.](source: plan sent by client)

The proposed layout plan for the development is shown in Appendix 3, Drawing 092-200/Rev G.

1.2 Aims

This report has been prepared to support a planning application and provides baseline data for the assessment of the site’s ecological features, and identifies any potential constraints with regards to protected species. It also outlines recommendations for further surveys if necessary.

1.3 Current UK Legislation

The main legislation that applies to ecological issues within England and Wales is as follows:
The Conservation of Habitats and Species Regulations 2010, consolidating all amendments to the Conservation, (Natural Habitats etc.), Regulations 1994. This legislation implements the EU Habitats Directive and also contains new provisions designed to implement aspects of the Marine and Coastal Access Act 2009 for England and Wales. These regulations place a duty on the UK to designate sites of European Community importance as special areas of conservation, (SACs), and to protect European species of conservation concern.

The Wildlife and Countryside Act 1981, (WCA), was amended by the Wildlife and Countryside (Amendment) Act 1985 and the Countryside and Rights of Way Act 2000, (CRoW). The Act provides various levels of protection for wild birds, including species listed in Schedule 5 protected under Section 9, (animals which are protected). In addition to which, wild plant species listed under Schedule 8 are also protected from intentional or reckless picking, uprooting or destruction including any seed or spore of these plants.

The Natural Environment and Rural Communities, (NERC), Act 2006 imposes an obligation on all public bodies, including local authorities, to consider whether their activities can contribute to the protection of wildlife. Section 41 (S41) of the Act requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England. There are 943 species of principal importance and fifty-six habitats of principal importance included on the S41 list.

Badgers, (*Meles meles*) are protected under the Protection of Badgers Act 1992, (PBA), making it a criminal offense to wilfully kill, injure, take, possess or cruelly ill-treat a Badger, or to attempt to do so or to intentionally or recklessly interfere with a sett.

### 1.4 Site Specific Legislation

#### 1.4.1 Bats

All bat species are protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2010. It is illegal to kill or injure bats, cause disturbance at their resting places or to block access to, damage or destroy their roost sites.

#### 1.4.2 Birds

Wild birds are protected under the Wildlife and Countryside Act 1981, (as amended). It is illegal to take or harm them, their nests (whilst in use or being built) or their eggs.

Additionally, for some species listed under Schedule 1 of the Act, it is an offence to intentionally or recklessly disturb the adults while they are in and around their nest or intentionally or recklessly disturb their dependent young.

#### 1.4.3 Reptiles

Common reptiles include Slow-worm (*Anguis fragilis*), Adder (*Vipera berus*), Grass Snake (*Natrix natrix*) and Common Lizard (*Zootoca vivipara*). These are protected under the Wildlife and Countryside Act 1981 (as amended) Schedule 5, Sections 9 (1) & 9 (5) only. It is illegal to kill or injure them.

It is not illegal to capture, disturb or to damage their habitats. However, the reptiles themselves are protected so any works to damage their habitat could risk causing harm to reptiles and hence could be illegal.

Rare reptiles include Sand Lizard (*Lacerta agilis*) and Smooth Snake (*Coronella austriaca*) are fully protected under the Wildlife and Countryside Act 1981 (as amended) Schedule 5, Section 9 and the Conservation of...
Habitats and Species Regulations 2010. It is illegal to kill, injure or intentionally disturb them whilst occupying a ‘place used for shelter or protection’ and destruction of these places.
2. TECHNICAL APPROACH

The extended Phase 1 habitat survey, has been undertaken following guidelines provided by CIEEM’s Guidelines for Preliminary Ecological Appraisal, (ref. R.1), and BS 42020: 2013 Biodiversity standards, (ref. R.2).

A desk study and ecological site walkover has been undertaken in accordance the key principles of the National Planning Policy Framework, (ref. R.3), and Government Circular 05/06: Biodiversity and Geological Conservation – statutory obligations and their impact within the planning system, (ref. R.4), to provide an indication of the ecological value of the site and the potential for the site to be used by protected species.

The habitat survey was undertaken in general accordance with JNCC methodology, (ref. R.5). Scientific names and common names of plant species identified are as they appear in Stace, (ref. R.6).

The conclusions and recommendations for further works are in accordance with current legislation and guidance.

2.1 Ecological Desk Study

A data search was conducted of freely available biological records. The sources of information included:

- Natural England Magic website for geographic information on key statutory designated nature conservation sites within 2km of the site, (ref. R.7);
- Cambridgeshire and Peterborough Environmental Records Centre (CPERC) was contacted to provide details of legally protected species and non-statutory designated conservation sites within 2km of the site.

All relevant desk study data obtained is attached in Appendix 4.

2.2 Preliminary Ecological Appraisal

The surveys used to inform the Preliminary Ecological Appraisal comprise of a Phase 1 habitat and protected species scoping survey, more often referred to as an extended Phase 1 habitat survey.

The Phase 1 habitat survey involved a walkover of the site in which the habitats are classified according to JNCC phase 1 habitat survey guidelines and recorded onto field maps. The frequency and cover of each species identified as they are distributed in each habitat is estimated using the DAFOR scale, (ref. R.8), as follows:

- Dominant - >75% cover;
- Abundant – 51-75% cover;
- Frequent – 26-50% cover;
- Occasional – 11-25% cover;
- Rare – 1-10% cover;
- Locally frequent is also used where the frequency and distribution is patchy.

The site was assessed for its suitability to support protected species and other species of conservation importance, which could pose a planning constraint. All signs and areas of habitat considered suitable for
protected species or those of conservation interest, were recorded and photographed. These include burrows, droppings, footprints / paths, hairs, refuges and particular habitat types, such as ponds, known to be used by certain class of fauna. Any mammal paths found were noted down and followed where possible. Sites are taken in the context of their surroundings and so include the immediate environs outside of site boundaries where appropriate.

2.3 Habitat Suitability Index

The Habitat Suitability Index, (HSI), (ref. R.9), can be used to assess the suitability of a pond to support Great Crested Newt (GCN), based upon a number of factors including the size, water quality, permanence, shading, presence of fish, the number of nearby ponds and macrophyte cover. A score between 0 and 1 is given; where 0 represents poor suitability and 1 represents excellent suitability.

2.4 Ecological Impact Assessment

The ecological evaluation and impact assessment detailed below is based on CIEEM Guidelines for Ecological Impact Assessment in the United Kingdom, (ref. R.10).

CIEEM Guidelines state that the value or potential value of an ecological resource or feature should be determined within a defined geographical context from an international to site scale as follows:

- On an International scale, e.g. Ramsar, SAC or SPA site;
- On a UK scale, for example a SSSI or a National Nature Reserve, (NNR);
- On a National scale, e.g. a reserve of importance to England/Northern Ireland/Scotland/Wales;
- On a Regional scale, e.g. a local site with important regional habitats or UKBAP species;
- On a County scale, e.g. a local site with a habitat that is characteristic of the County or rare on a County scale, or with LBAP species;
- On a District scale e.g. a site with wildlife corridors likely to improve the biodiversity of the area;
- Local or Parish, e.g. areas of green space in a predominantly urban environment;
- On a Site scale, e.g. habitats with value within the zone of influence only.

The potential for protected species to use the habitats on site contributes significantly towards the potential value of the habitats on site.
3. DESK STUDY RESULTS

All relevant desk study data obtained is attached in Appendix 4, except for detailed lists of species given the sensitive nature of the information.

3.1 Statutory Designated Nature Conservation Sites

Three statutory designated nature conservation sites are located within 2km of the site. All three are designated Sites of Special Scientific Interest, (SSSI), the closest of which is Whittlesford-Thriplow Hummocky Fields located 808m south of the site. A combination of topography and agricultural practice provides a suitable habitat for nationally rare species, Grass-poly (*Lythrum hyssopifolia*), and the nationally uncommon Fairy Shrimp (*Chirocephalus diaphanus*). This SSSI is separated from site by agricultural fields and roads.

3.2 Non-Statutory Designated Nature Conservation Sites

There are three non-statutory designated nature conservation sites within 2km of the site, two are County Wildlife Sites, one of which is also a Protected Road Verge, the third, and closest non-statutory site is a S47 Mill Road, a Protected Road Verge located approximately 1,030m to the south west of the site. The Protected Road Verge is separated from site by agricultural fields and roads.

3.3 Protected Species Records

There are numerous records of protected and notable species listed within 2km of the site returned from Cambridgeshire and Peterborough Environmental Records Centre. Absence of records should not be taken as confirmation that a species is absent from the search area.

Table 1 provides a summary below:

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Biological Records Within 2Km</th>
<th>Date of Most Recent Record</th>
<th>Protective Status *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amphibian</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Great Crested Newt</td>
<td><em>Triturus cristatus</em></td>
<td>YES</td>
<td>1984</td>
<td>UKBAP, WCA Sch 5 + 6, HabsDir</td>
</tr>
<tr>
<td>Common Frog</td>
<td><em>Rana temporaria</em></td>
<td>YES</td>
<td>2015</td>
<td>WCA Sch 5 (Common. Documented decline up to 1970s, since then appears to have stabilized.)</td>
</tr>
<tr>
<td>Common Toad</td>
<td><em>Bufo bufo</em></td>
<td>NO</td>
<td>-</td>
<td>UKBAP, WCA Sch 5, NERC</td>
</tr>
<tr>
<td>Reptile</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common Lizard</td>
<td><em>Zootoca vivipara</em></td>
<td>YES</td>
<td>2014</td>
<td>UKBAP, WCA Sch 5, NERC</td>
</tr>
<tr>
<td>Slow Worm</td>
<td><em>Anguis fragilis</em></td>
<td>NO</td>
<td>-</td>
<td>UKBAP, WCA Sch 5, NERC</td>
</tr>
<tr>
<td>Adder</td>
<td><em>Vipera berus</em></td>
<td>NO</td>
<td>-</td>
<td>UKBAP, WCA Sch 5, NERC</td>
</tr>
</tbody>
</table>
### Table 1 – Protected and Notable Species Records Identified Within 2km of the Site

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Biological Records Within 2Km</th>
<th>Date of Most Recent Record</th>
<th>Protective Status *</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mammal</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Badger</td>
<td>Meles meles</td>
<td>YES</td>
<td>2015</td>
<td>PBA</td>
</tr>
<tr>
<td>Otter</td>
<td>Lutra lutra</td>
<td>YES</td>
<td>2014</td>
<td>UKBAP, WCA Sch 5 + 6, HabsDir</td>
</tr>
<tr>
<td>Water Vole</td>
<td>Arvicola amphibius</td>
<td>YES</td>
<td>2001</td>
<td>UKBAP, WCA Sch 5, HabsDir</td>
</tr>
<tr>
<td>Hedgehog</td>
<td>Erinaceus europaeus</td>
<td>YES</td>
<td>2015</td>
<td>NERC, UKBAP, WCA Sch 6</td>
</tr>
<tr>
<td>Whiskered Bat</td>
<td>Myotis mystacinus</td>
<td>NO</td>
<td>-</td>
<td>HabsDir, WCA Sch 5 + 6</td>
</tr>
<tr>
<td>Natterers Bat</td>
<td>Myotis nattereri</td>
<td>YES</td>
<td>1989</td>
<td>HabsDir, WCA Sch 5 + 6</td>
</tr>
<tr>
<td>Serotine Bat</td>
<td>Eptesicus serotinus</td>
<td>YES</td>
<td>1987</td>
<td>HabsDir, WCA Sch 5 + 6</td>
</tr>
<tr>
<td>Noctule Bat</td>
<td>Nyctalus noctula</td>
<td>YES</td>
<td>1985</td>
<td>HabsDir, WCA Sch 5 + 6, NERC, UKBAP</td>
</tr>
<tr>
<td>Soprano Pipistrelle</td>
<td>Pipistrellus pygmaeus</td>
<td>YES</td>
<td>2006</td>
<td>HabsDir, WCA Sch 5 + 6, NERC, UKBAP</td>
</tr>
<tr>
<td>Common Pipistrelle</td>
<td>Pipistrellus pipistrellus</td>
<td>YES</td>
<td>2014</td>
<td>HabsDir, WCA Sch 5 + 6</td>
</tr>
<tr>
<td>Brown Long-eared Bat</td>
<td>Plecotus auritus</td>
<td>YES</td>
<td>1985</td>
<td>HabsDir, WCA Sch 5 + 6, NERC, UKBAP</td>
</tr>
<tr>
<td>Daubentons bat</td>
<td>Myotis daubentonii</td>
<td>NO</td>
<td>-</td>
<td>HabsDir, WCA Sch 5 + 6, NERC</td>
</tr>
<tr>
<td>Brown Hare</td>
<td>Lepus europaeus</td>
<td>YES</td>
<td>2014</td>
<td>UKBAP</td>
</tr>
<tr>
<td>Hazel Dormouse</td>
<td>Muscardinus avellanarius</td>
<td>NO</td>
<td>-</td>
<td>HabsDir, NERC, UKBAP, WCA Sch 5 + 6</td>
</tr>
<tr>
<td><strong>Plants</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In total 77 records of flowering plant were provided by CPERC, including 3 UKBAP species; Tubular Water-dropwort (Oenanthe fistulosa), Grass-poly (Lythrum hyssopifolia) and Flat-sedge (Blymus compressus).</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Invertebrate</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In total 123 records of invertebrates were provided by CPERC, 39 of which are UKBAP species including Small Heath butterfly (Coenonympha pamphilus), Wall Brown butterfly (Lasionmata megera), Beaded Chestnut moth (Agrochola lychnidis) and Blood-vein moth (Timandra comae).</td>
<td></td>
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<tr>
<td><strong>Birds</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>In total 2918 records of bird were provided by CPERC, 33 of these are Schedule 1 birds including: Osprey (Pandion haliactus), Goldeneye (Bucephala clangula), Honey Buzzard (Pernis apivorus) and Little Ringed Plover (Charadrius dubius).</td>
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<tr>
<td><strong>Notes:</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Common Name</td>
<td>Scientific Name</td>
<td>Biological Records Within 2Km</td>
<td>Date of Most Recent Record</td>
<td>Protective Status *</td>
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4. SURVEY RESULTS

An experienced surveyor from Geosphere Environmental Ltd, carried out an initial appraisal of the site for protected species and habitats on the 21 February 2017. The weather conditions at the time of the survey were overcast and an approximate temperature of 12°C.

The results of the Phase 1 habitat survey and protected species scoping survey are detailed below, and annotated on Drawing ref. 2280,EC,AR/012/Rev 0 attached in Appendix 3. Descriptions of the target notes, (TN), and relevant photographs are included in Appendix 5.

4.1 Phase 1 Habitat Survey

The following habitat types were recorded within the survey area:

- Arable;
- Intact species-poor hedgerow;
- Poor semi-improved grassland;
- Scattered trees.

These habitats outlined above and are discussed in more detail below.

4.1.1 Habitat 1

The majority of the site consists of an arable field, (TN1).

An intact species-poor hedgerow runs along the western boundary of the site dominated by Hawthorn (Crataegus monogyna) with rare occurrences of Wild Privet (Ligustrum vulgare), (TN2).

There was a 5m wide, short mowed grass margin along the western side of the site dominated by meadow grasses poaceae, (TN3). A taller field margin ran along the northern boundary of the site dominated by Cock’s Foot (Dactylis glomerata) with rare occurrences of Spear Thistle (Cirsium vulgare), (TN4).

Along the western hedgerow is a line of scattered trees dominated by Ash (Fraxinus excelsior) with rare occurrences of Lime (Tilia x europaea) (TN5).

4.2 Outside the Development Zone

The site is surrounded by arable fields to the north east and south, to the west the site is bordered by Fowlmere Road beyond which is more arable fields. There is connectivity to the north and south of the site via the hedgerow and grass margins that run off site in both directions. There is also connectivity to the east via the grass margin and the continuation of arable field.
4.3  Protected Species Appraisal

4.3.1  Bats

The hedgerows and scattered trees provide suitable commuting and foraging habitat for bats.

4.3.2  Great Crested Newts

4.3.2.1  Habitat Suitability Index of Ponds

There is one pond located 182m south west of the site, which was not accessible. This pond is referred to as Pond 1 on Drawing ref. 2280,EC,AR/013/Rev 0 within Appendix 3. As the pond was not accessible an HSI was not carried out, however the pond is separated from the site by residential gardens and a road.

4.3.3  Birds

The scattered trees and hedgerows on site provide suitable habitat for nesting birds, however no old nests were noted on site during the survey.
5. **ECOLOGICAL EVALUATION, IMPACT ASSESSMENT**

5.1 **Natural Conservation Sites**

There are three statutory designated nature conservation sites within 2km radius of the site. There are three non-statutory sites designated nature conservation as wildlife sites identified by the desk study.

The development site does not contain any habitats which could support the notable species associated with either the statutory or non-statutory sites.

It is considered unlikely that the proposed grain store development at land off Fowlmere Road, Foxton, is of a sufficient size to have any indirect impacts on the designated sites.

It is considered unlikely, given the distance from the survey area and localised nature of the proposed development works, that the sites with statutory or non-statutory protection will be directly affected by any construction activity on the surveyed area.

5.2 **Legally Protected and Notable Species**

The ecological evaluation and impact assessment for protected species is detailed within Table 2 below:

<table>
<thead>
<tr>
<th>Species</th>
<th>Biological Records Within 2km</th>
<th>Suitable Habitat Confirmed on Site</th>
<th>Further Works Required</th>
<th>Impact should development without appropriate mitigation take place.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bats (Roosting)</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>There are no habitats on site that are suitable for roosting bats.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bats (Foraging)</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
<td>Should bats be using the site for foraging and commuting, the removal of foraging habitat could result in a negative impact of site significance.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The scattered trees and boundary hedgerows are suitable for foraging and commuting bats. It is considered likely that some of the western hedgerow will be removed for access from Fowlmere road.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Great Crested Newt</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>It is considered unlikely that GCN will use the site during their terrestrial phase.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hazel Dormouse</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The species-poor hedgerows and trees on site are too small to offer suitable habitat for Hazel Dormouse.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Otter &amp; Water Vole</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>There are no riparian habitats on or near the site that could support these species.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Badger</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No Badger setts or foraging signs were identified within the site during the habitat survey.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Birds</td>
<td>No</td>
<td>YES</td>
<td>YES</td>
<td>Possible negative impact of site significance.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The hedgerows and trees on site offer value to breeding birds, providing suitable nesting and foraging grounds for common passerine birds and are considered important on a site scale.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reptiles</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>Possible negative impact of site significance.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The Semi-improved grass field margins could be considered suitable for a transient population of reptiles.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Table 2 – Protected Species - Ecological Impact Assessment

<table>
<thead>
<tr>
<th>Species</th>
<th>Biological Records Within 2km</th>
<th>Suitable Habitat Confirmed on Site</th>
<th>Further Works Required</th>
<th>Impact should development without appropriate mitigation take place.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Invertebrates</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
<td>Possible negative impact of site significance.</td>
</tr>
<tr>
<td>Notable Plants</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
<td>N/A</td>
</tr>
</tbody>
</table>

The field margins, hedgerow and scattered trees could be considered suitable for low numbers of invertebrates.

The habitats recorded during the survey support common and widespread species.

### 5.3 Habitats on Site

No habitats considered to have high value to legally protected species will be affected by the proposed works.
6. ECOLOGICAL CONSTRAINTS AND RECOMMENDATIONS FOR MITIGATION AND ENHANCEMENT OPPORTUNITIES

6.1 Ecological Constraints

The constraints to development will be the removal of the boundary hedgerow and scattered trees, which could be considered potential habitat for nesting birds and foraging, commuting bats, and the field margins, which could be considered suitable for a transient population of reptiles.

6.2 Recommendations

In general, if a habitat survey indicates potential habitat for legally protected species on the site which will be affected by the development, further species-specific surveys should be undertaken to determine if these species are present. If they are not carried out, the developer and/or subcontractors could be found liable for intentional, deliberate or reckless offences with respect to wildlife.

6.2.1 Habitats

Any hedgerows or trees to be retained should be protected during the works. These protection measures should be implemented according to BS 5837: 2012 ‘trees in relation to design, demolition and construction’ (ref. R.11).

Mature trees should be retained where possible. Any trees or hedgerow that are removed during development should be replaced within the landscaping of the final development using similar species.

6.2.2 Bat: Foraging

The scattered trees and hedgerow on site provide potential habitats for foraging and commuting bats.

However, bat activity surveys are not deemed necessary for this site as the amount of habitat to be lost is likely to be minimal and therefore there will be negligible impacts on the local population of bats.

6.2.3 Bat: Recommendations Regarding Lighting

External lighting should be directed away from hedgerows or scattered trees during construction and within the final development.

6.2.4 Reptiles

The grassland, along with its connective habitat, is considered suitable for a transient population of common reptiles.

Reptile surveys are not deemed necessary for this site as the amount of habitat to be lost is likely to be minimal and therefore there will be negligible impacts on the local population of reptiles (if present).

Ideally, any works should be carried out in the reptile active season, (April to September), to allow any reptiles, (if present), to make their escape unharmed.
6.2.5 Breeding Birds

The hedgerows and scattered trees on site offer value to breeding birds, providing suitable nesting and foraging grounds for common passerine birds.

A breeding bird survey is not deemed necessary for this site as the amount of habitat to be lost is likely to be minimal and therefore there will be negligible impacts on the local nesting birds.

6.2.5.1 Future timings of Work

To ensure that no offences occur under the WCA, it is recommended that any vegetation clearance work or building demolition work is undertaken outside of the bird nesting season. The bird-nesting season is generally regarded to extend between March and August inclusive, (weather dependent).

If it is not possible to undertake vegetation clearance works outside of the breeding bird season, a suitably qualified ecologist should be employed to determine if nesting birds are using the site prior to works commencing, to avoid negative impact on protected species. Any active nests that are found would need to be provided with a 10 metre buffer which would have to be left until the young had fledged, (typically four weeks from eggs being laid for the garden and woodland species likely to be present). Clearance works within the area can recommence only once the nest is no longer in use.

6.3 Other Species

The site is not considered suitable for Water Voles, Otters, Great Crested Newts, Badgers, Hazel Dormice or notable plants and invertebrates.

6.4 Biodiversity Enhancement Opportunities

The following has been recommended for consideration within the Final Development Scheme.

There are landscaping proposals for the site which include planting new hedgerows around the site boundaries where none exist currently. The proposals also include orchard planting.

It is recommended that native species local to the area are considered I for the new hedgerows and hedgerow trees and should include fruit and berry producing varieties.
7. CONCLUSIONS

The proposed development will not adversely affect statutory or non-statutory designated nature conservation sites.

The habitats on site comprise of widespread and common species and are not of high ecological value. The habitats are considered to have site significance only.

The site is not considered suitable for Water Voles, Otters, Great Crested Newts, Badgers, Hazel Dormice or plants and invertebrates of significance.

There are suitable features within the area that could be affected by the proposed development, which may provide habitat for birds, bats and transient reptiles:

- **Foraging Bats**: The hedgerow and scattered trees provide suitable foraging and commuting habitat.
- **Birds**: The hedgerow and scattered trees provide suitable nesting habitat for breeding birds during the breeding season.
- **Reptiles**: The field margins on site appear suitable for a transient population of reptiles.

The constraints to development will be the removal of the boundary hedgerow and scattered trees, which could be considered potential habitat for nesting birds and foraging, commuting bats, and the field margins, which could be considered suitable for a transient population of reptiles. The recommendations within Section 6 of this report should be adhered to, to reduce the impact on protected species.

The proposed biodiversity enhancements should provide a beneficial effect of site significance once matured.
APPENDICES
APPENDIX 1 – REPORT LIMITATIONS AND CONDITIONS

This report was prepared only for our client and is not intended to be relied on by any other party.

Any limitations associated with the report will be stated. The consequences of any limitations, findings and/or recommendations in the report are made clear in line with CIEEM professional conduct guidelines and British industry standards, (refs. R.1 and R.2).

The Executive Summary, Conclusions and Recommendations sections of the report provide an overview and guidance only and should not be specifically relied upon until considered in the context of the whole report.

Interpretations and recommendations contained in the report represent our professional opinions, which were arrived at in accordance with currently accepted industry practices at the time of reporting and based on current legislation in force at that time.

This report is prepared and written in the context of the proposals stated in the introduction to this report and should not be used in a differing context. Furthermore, new information, improved practices and legislation may necessitate an alteration to the report in whole or in part after its submission. Therefore, with any change in circumstances or after the expiry of one year from the date of the report, the report should be referred to us for re-assessment and, if necessary, re-appraisal.

Scientific survey data will be shared with local biological records centre in accordance with the CIEEM professional code of conduct.

The scoping survey does not assess the presence or absence of a species, but is used to assess the potential for habitat to support them.

This survey does not constitute an invasive species survey and should not be treated as such.

Geosphere Environmental Ltd may not be aware of information that could be held by other organisations or individuals, and it is always possible for features of nature conservation interest to be unrecorded during surveys.

Due to the time of year, some plant species are not identifiable. However, this does not affect categorisation of habitats present.
APPENDIX 2 – REFERENCES


APPENDIX 3 - DRAWINGS

Proposed Development Layout – Drawing 092-200/Rev G

Phase 1 Habitat Survey Plan – Drawing ref. 2280,EC,AR/012/Rev 0

Pond Location Plan – Drawing ref. 2280,EC,AR/013/Rev 0
Site title: Grain Store Land off Fowlmere Road, Foxton, CB22 6TA
Title: Phase 1 Habitat Plan
Client: Hill Residential Ltd
Report no.: 2280. EC, AR
Drawing by: TC
Checked: AS
Drawing no.: 012 / Rev 0
Date: February 2017
Scale: Not to scale
APPENDIX 5 - TARGET NOTES AND PHOTOGRAPHS
### Target Note 1

The site predominantly comprised of arable land – low ecological value

![Image of arable land](image1.jpg)

### Target Note 2

A species-poor hedgerow is present along the western boundary of the site, providing potential habitat for foraging and commuting bats and nesting birds

![Image of hedgerow](image2.jpg)
ECOLOGICAL TARGET NOTES
RELATING TO EXTENDED PHASE I HABITAT SURVEY

| Target Note 3 | A 5m field margin of short poor semi-improved grassland ran along the western boundary of the site |
| Target Note 4 | A tall semi-grass margin ran along the northern boundary of the site, providing potential habitat to transient populations of reptiles. |
Target Note 5

Scattered trees in the hedgerow bordering the western boundary of the site providing potential nesting bird habitat as well as commuting foraging ground for bats.
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