



## Ecological Evaluation

Land at Church End Farm  
Albury Road  
Little Hadham  
Hertfordshire

December 2023

For and on behalf of:  
Sworders  
The Gatehouse  
Hadham Hall  
Little Hadham  
Ware  
SG11 2EB



ELMAW Consulting  
*Consultant Ecologists &  
Wildlife Managers*

### Author

Keith Seaman BSc, DipHE, CertHE, CBIol, MRSB, MCIEEM  
Chartered Biologist & Principal Consultant

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### Declaration

*This report has been produced endeavouring to follow the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct and ecological information has been provided in accordance with British Standards BS 42020 2013-Biodiversity-Code of practice for planning and development.*

*Whilst every effort has been taken to ensure this report accurately identifies potential ecological constraints to development or the likely presence or absence of species and the spatial and temporal use of the site by such species, it must only be viewed as a snap shot in time and reflects the ecological status of the site at the time of survey.*

*No liability can be assumed for ecological changes that may or may not occur on the surveyed site after the production of this report. The author of this report must be consulted as to the current applicability of the report if there are any seasonal delays in the use of this report.*

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### Quality Assurance

Author	Keith Seaman
Checked by	Emma Seaman
Approved by	Emma Seaman

Report produced by:



ELMAW Consulting  
Consultant Ecologists  
& Wildlife Managers



Chartered  
Biologists

Greys Farm, Therfield Road, Royston, Herts SG8 9NW

Phone: 01763 245900

Email: [info@elmaw.co.uk](mailto:info@elmaw.co.uk)

Website: [www.elmaw.co.uk](http://www.elmaw.co.uk)

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## Executive Summary

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The purpose of this report is to detail the results of an ecological evaluation of a small site which is proposed for residential development. The site is located at Church End Farm, Albury Road in Little Hadham, Hertfordshire and is comprised of part of an arable field with a hedgerow with trees and a strip of tall forb vegetation along the north-western boundary.

The site assessment was carried out by qualified ecologists employing the methodology detailed for Preliminary Ecological Appraisal (PEA), at an appropriate time of year, with no access restrictions and supported by a biological data search and desk study to identify designated sites of nature conservation importance. The resulting key issues are:

- The application site is not a designated site of nature conservation importance and no such important sites are predicted to be adversely affected by the development of the application site.
- The application site supports no significantly important habitats, although all native hedgerows classify as NERC Sect. 41 Habitats of Principal Importance. Despite this, all habitats are considered to be of negligible or site level value only and their loss through development is not predicted to have a significant adverse effect on ecology.
- There are no significant protected species concerns although there is potential for common nesting birds and roosting bats within the hedgerow with trees. To mitigate against disturbing or harming nesting birds or roosting bats during development, any works to or removal of the hedgerow with trees will have due regard to nesting birds and roosting bats and it will be necessary to ensure none are present through checking/surveying, immediately prior to works.

In conclusion, the application site was found to have no significantly important ecology; its development is not predicted to adversely impact designated sites of nature conservation importance, important habitats or species.

The Biodiversity Metric 4.0 has calculated the application site's baseline to be worth 1.30 Habitat Units (HUs) and the existing hedgerow with trees to be worth

0.60 Hedgerow Units (HRUs). The draft proposed site layout (which includes an area of cropland to the south-west of the development footprint and owned by the applicant, specifically given over to achieving a Biodiversity Net Gain, has been provided and initial calculations of the proposed site layout indicate a Biodiversity Net Gain of approximately +28% in Habitat Units. In addition, the planting of new lengths native hedgerows with trees, measuring approximately 180m will result in a Biodiversity Net Gain of +15.8% in Hedgerow Units.

## 1.0 Introduction

### 1.1 Background

- 1.1.1 It is proposed to seek outline planning permission to build seven residential dwellings on an arable field at Church End Farm, Albury Road, Little Hadham, Hertfordshire. The site has previously been assessed for a larger development by ELMAW Consulting Ltd in 2017, however this data is now considered out of date. The current application site has been greatly reduced in area from the 2017 assessment and this current, smaller area of land will be referred to throughout this report as the 'application site'.
- 1.1.2 The purpose of this report is to appraise the application site's existing ecological value with regard to potential development constraints and the potential presence of important habitats and protected or important species. In addition, the application site will be valued ecologically using the Biodiversity Metrics 4.0, in support of an outline planning application for the site's development.
- 1.1.3 This ecological study has been commissioned by Sworders of Little Hadham, Hertfordshire on behalf of the applicant. The aerial photo below illustrates the indicative extent of the application site and shows it in its geographical context, within its landscape surroundings.



Plate 1: Aerial photo with indicative application site boundary



- 1.1.4 The report's author is Keith Seaman who holds a Bachelor of Science Degree in Environmental Studies; Agri-Ecosystem Management, a Diploma of Higher Education in Ecology and a Certificate of Higher Education in Ecology and Conservation. His professional qualifications include membership of the Royal Society of Biology (RSB), registered as a Chartered Biologist and professional grade membership of The Chartered Institute of Ecology and Environmental Management (CIEEM). Keith Seaman also holds Natural England Class Survey Development licenses for all species of bat [REDACTED] great crested newt (*Triturus cristatus*), otter (*Lutra lutra*), barn owl (*Tyto alba*) and dormouse (*Muscardinus avellanarius*).
- 1.1.5 Keith Seaman has been an academically qualified Ecologist since 1995 and a professionally qualified Ecologist since 2004 and since then has gained considerable experience working in both the public and private sectors carrying out Ecological Impact Assessments as well as protected species appraisals and developing mitigation strategies.

## 2.0 Planning Policy and Legislation

### 2.1 *Relevant National and Local Planning Policies*

#### National Planning Policy Framework

2.1.1 The National Planning Policy Framework (NPPF) superseded Planning Policy Statement 9 (PPS9) in March 2012. The NPPF 2023 states that ‘*planning policies and decisions should contribute to and enhance the natural and local environment by*’, in part;

- *Minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.*

It also states that ‘*when determining planning applications, local planning authorities should apply the following principles*’;

- *If significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused*
- *Development 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;*
- *Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and*
- *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.’*



## 2.2 *Local Plan Policies*

- 2.2.1 The East Herts District Plan 2018 is the current local level policy guidance covering the application site. The following policy from the document is deemed, in part, to be potentially relevant to this study;

### **Policy NE 3 –Species and Habitats**

*'I. Development should always seek to enhance biodiversity and to create opportunities for wildlife. Proposals must demonstrate how the development improves the biodiversity value of the site and surrounding environment. Evidence will be required in the form of up-to-date ecological surveys undertaken by a competent ecologist prior to the submission of an application. The biodiversity value of a site pre and post development will be determined by applying a locally approved Biodiversity Metric where appropriate. Submitted information must be consistent with BS 42020 2013. Where insufficient data is provided, permission will be refused.*

*IV. Proposals will be expected to protect and enhance locally important biodiversity sites and other notable ecological features of conservation value.*

*V. Proposals should avoid impacting on Species and Habitats of Principal Importance as published under section 41 of the NERC Act 2006 (or as subsequently amended).*

*VI. Where adverse impacts are unavoidable, appropriate mitigation and compensation measures must be employed, commensurate to the importance, the legal protection or other status of the species or habitat. The District Council will impose conditions/planning obligations which seek to:*

- (a) Facilitate the survival of existing populations as well as encouraging the establishment of new populations;*
- (b) Reduce disturbance to a minimum;*
- (c) Provide adequate alternative habitats to sustain at least the current levels of populations.*

## 2.3 *Legislation*

### The Conservation of Habitats & Species (Amendment) (EU Exit) Regulations 2019

- 2.3.1 The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 in the UK implement the EC Habitats Directive in the UK. These regulations mainly deal with the protection of sites that are important for nature conservation in a European context (eg Special Areas of Protection [SACs] and Special Protection Areas [SPAs]). The legislation also gives protection to certain species of flora and fauna.

- 2.3.2 The 2019 Regulations makes it an offence to deliberately capture, kill or disturb wild animals and it is also an offence to damage or destroy a breeding site or resting place of such an animal (even if the animal is not present at the time).

Wildlife & Countryside Act (WCA)

- 2.3.3 The Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way Act (CRoW) 2000 and the Natural Environment and Rural Communities Act (NERC) 2006, consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the Conservation of Wild Birds (Birds Directive).

Natural Environment & Rural Communities Act (NERC)

- 2.3.4 The NERC Act of 2006 places a duty on authorities to have due regard for biodiversity and nature conservation during the course of their operations.

## 3.0 Methodology

### 3.1 *Field Survey*

3.1.1 This report has been produced following the *Guidelines for Preliminary Ecological Appraisal 2017* (Chartered Institute of Ecology and Environmental Management). Habitats have been described, based, on the methodology from the UK Habitat Classification (Ref. 4). In some circumstances habitat descriptions and mapping may have been adapted to suit non-standard site-specific conditions.

### 3.2 *Scoping for Protected & Important Species*

3.2.1 The habitat survey of the application site has been extended to include a scope of the application site's habitats as to their likely importance or potential to support protected or important species and habitats, as identified under the following legislation; the Habitat Regulations 2019, the Wildlife & Countryside Act (as amended) 1981, [REDACTED] the Hedgerow Regulations 1997, International Union for Conservation of Nature (IUCN) Birds of Conservation Concern (BoCC) Red and Amber Lists and the Natural Environment & Rural Communities (NERC) Act 2006.

3.2.2 Some species and species groups have been scoped out of this PEA because of the lack of biological records, limitations in geographical distribution and the absence of species-specific suitable habitat and connectivity within or adjacent to the application site. Only those important and protected species and species groups deemed likely to be present on site or affected by the proposals have been included in this Ecological Evaluation.

3.2.3 The Ecological Evaluation was carried out on the 7<sup>th</sup> of November 2023, by Mr Keith Seaman BSc, Principal Ecologist with ELMAW Consulting Ltd. Weather conditions on the day were considered suitable for surveying.

### 3.3 *Biodiversity Metric 4.0*

3.3.1 To calculate a Biodiversity Net Gain (BNG) the Biodiversity Metric 4.0 (March 2023) uses habitat as a proxy for wider biodiversity with different habitat types scored according to their relative biodiversity value. This value is then adjusted, depending on the condition and location of the habitat, to calculate 'biodiversity units' for the specific project or development. Biodiversity Metric

4.0 incorporates separate calculations for linear habitats that require a different method of measurement such as hedgerows and lines of trees, rivers and streams.

- 3.3.2 The Biodiversity Metric 4.0 can be used to measure both on-site and off-site biodiversity changes for a development and can be used to measure the change in biodiversity achieved by different land management interventions. The Metric also accounts for some of the risks associated whenever new habitat is created or existing habitat is enhanced. The Metric calculates the change in biodiversity resulting from a development by subtracting the number of pre-intervention or 'baseline' biodiversity units (i.e., those originally existing on-site) from the number of post-intervention units (i.e., those projected to be provided after the development or change in land management).

### **3.4** *Limitations*

- 3.4.1 As to the reliability of the assessment for protected species, it must be acknowledged that this appraisal is based on the presence of suitable habitat, available local biological records, geographical distribution and habitat connectivity to support such important species and not on qualitative species-specific surveys. Where the potential for important species has been identified, further species-specific surveys may be considered necessary to be confident of either a positive or negative conclusion as to the presence of protected species on site. Where a European Protected Species Mitigation (EPSM) licence is required, species survey data of the current season and year of the application is required by Natural England.
- 3.4.2 The Chartered Institute of Ecology and Environmental Management (CIEEM) advises that where mobile species such as reptiles, birds and bats are concerned, this report is likely to be out of date within 12 - 18 months and may need updating.
- 3.4.3 It is acknowledged that the Ecological Evaluation has been carried out at a sub-optimal time of the year regarding the recording of some of the ground flora. This seasonal limitation has been considered when assessing the relative species diversity across the application site. It was considered that enough was

known about the history of the site and sufficient species could be viewed to make an informed judgement as to the habitats' relative ecological value.

- 3.4.4 The study specifically addresses the issues of potential development constraints affecting important and protected species and habitats.

### 3.5 *Desk Study*

- 3.5.1 To provide contextual background to this study, a biological data search of records of protected and important species and habitats from a radius of 2km around the application site have been sourced from the Hertfordshire Environmental Records Centre (HERC) on the 6<sup>th</sup> November 2023. The results of the data search request were received on the 13<sup>th</sup> November 2023. Only species records from the last ten years have been included as it is considered that records older than this are not sufficiently recent to be relevant to this study.

- 3.5.2 In addition, all international sites of nature conservation importance within a 10km radius, nationally important sites within a 5km radius and local sites within a 2km radius of the application site have been sourced.

- 3.5.3 Google earth aerial photographs and DEFRA's Magic Map Application images have been examined of the application site and surrounding landscape as have the relevant Ordnance Survey Explorer Maps at a 1:25,000 scale.

### 3.6 *Determining Biodiversity Significance*

- 3.6.1 The Institute of Ecology and Environmental Management (IEEM) in 2016 identified various ecological features and resources which are likely to be important in terms of biodiversity. These are likely to include habitats, species and species groups and ecological communities and are determined on the basis of a number of factors which includes size, rarity, conservation status and geographical distribution. Assigning a biodiversity value on a geographical scale is based on the detailed principles and geographical value is assigned to international, national/regional, county, district, parish/neighbourhood and site level only.

- 3.6.2 Geographical Range of Reference

Value Category	Site or Ecological Feature
International	All internationally important Sites or candidate/proposed Sites. Regularly occurring, nationally significant population of protected or internationally important species.

	A viable area of habitat type listed in Annex 1 of The Habitats Directive or smaller areas of such habitat which are essential to maintain the viability of a larger whole
National/ Regional	SSSIs and other nationally designated Sites. A viable area of a priority habitat identified in the UKBAP or an area of such habitat which are essential to maintain the viability of a larger area Regularly occurring, regionally or nationally significant population of European Protected Species or habitats Regularly occurring, locally significant population of a regionally or nationally important species.
County	County designated Sites (CWS) Other Sites with BAP priority habitats or species of appreciable value not included in the above. Regularly occurring, locally significant population of a County important species. Local Nature Reserves and other viable areas of key habitat identified in the County or LBAP.
District	Area of habitat identified in a District/Borough BAP and other natural or semi-natural Sites of significant biodiversity. Regularly occurring, locally significant population of a District/Borough important species during a critical stage of its life cycle.
Parish/Neighbourhood	Areas of habitat considered to appreciably enrich the local habitat resource within approximately 2km of the application site, parish or neighbourhood.
Site level only	Sites with limited biodiversity, providing some biodiversity enrichment at project site only.

3.6.3 The valuation, levels of geographical importance and significance have been determined following the guidance of the CIEEM in the *Ecological Impact Assessment in the UK 2018* (updated 2019) and the *Handbook of Biodiversity Methods. Survey, Evaluation and Monitoring 2005* and have been tabulated above.

3.6.4 The baseline conditions of the application site have been determined for the year 2023.



## 4.0 Baseline Ecological Conditions

### 4.1 *Designated Sites of Nature Conservation Importance*

4.1.1 There are no sites of international importance within the 10km data search zone of the application site however there are two nationally important sites within 5km, both Special Sites of Scientific Interest (SSSIs): Patmore Heath SSSI and Hillcollins Pit SSSI which lie 2.5km and 3.7km north of the application site respectively. The application site lies within the Impact Risk Zone (IRZ) for Patmore Heath SSSI and therefore the local planning authority may need to consult with Natural England with regard to the site's development.

4.1.2 There are 16 non-statutory Local Wildlife Sites (LWSs) within the 2km data search zone, the closest of which is Muggins Wood LWS, which is a semi-natural woodland of predominately oak (*Quercus robur*) and hornbeam (*Carpinus betulus*). This LWS is an Ancient Woodland Inventory Site, designated for its woodland indicator species such as bluebell (*Hyacinthoides non-scripta*) and ramsons (*Allium ursinum*) and lies approximately 0.9km to the south-east of the site, across both the River Ash and the Stortford Road.

### 4.2 *Habitats*

#### General

4.2.1 The application site is primarily comprised of a small area of arable field, currently sown with a haylage grass mix. There is a small section of outgrown hedgerow with trees and a strip of tall forbs running down part of the western boundary, between the field and roadside.

#### Cropland: Cereal Crops

4.2.2 The majority of the application site is comprised of arable field, currently sown with a haylage grass mix. Although it is acknowledged that the botanical survey was undertaken at a sub-optimal time of year to identify some species, haylage mixes for cropland are usually common, fast-growing species and are unlikely to be important ecologically.

- 4.2.3 This habitat type is not considered to be a Section 41 NERC Act Habitat of Principal Importance and does not qualify for a BNG Condition Assessment. It is deemed geographically to be of negligible value.



*Plates 2 & 3: Cropland with haylage grass mix*

#### Sparsely Vegetated Land - Tall Forbs

- 4.2.4 Found along the north-western edge of the application site is a small linear strip of tall forb vegetation, approximately 7m wide and primarily consisting of common nettle (*Urtica dioica*) (a species list is appended). Tall forbs are not considered to be a Section 41 NERC Habitat of Principal Importance and were considered to be of site level value only; lacking the species and structural diversity to be of significant value ecologically. The BNG Condition Assessment found this habitat to be in poor condition, passing only one of the three criteria necessary to rank higher (BNG Condition Assessment appended).



*Plates 4 & 5: Strip of tall forb vegetation between the cropland and roadside, at the north-eastern boundary of the application site*

#### Hedgerow with Trees

- 4.2.5 Along part of the north-western application site boundary, adjacent to the tall forb habitat, is a small section of outgrown hedgerow with trees. This hedgerow has been categorised as a native hedgerow with trees under UKHab and is

considered to be a Sect.41 NERC Habitat of Principal Importance. This being said, all native hedgerows with at least 80% native woody shrubs classify as priority habitats. The intrinsic ecological value of this hedgerow is not considered to be especially high, particularly as it is isolated, providing little connectivity to other important habitats, short in length and there are large gaps within the vegetation itself. Therefore, this habitat is deemed to be of site level value only but is found to be in good condition, according to the BNG Condition Assessment (BNG Condition Assessment appended).

- 4.2.6 The hedgerow with trees does not extend any further along the arable field edge beyond the application site boundary and is largely considered defunct, although it does provide some potential roosting and nesting habitat within the trees and ivy (*Hedera helix*) for bats and birds respectively.
- 4.2.7 Species found within the hedge include hawthorn (*Crataegus monogyna*), blackthorn (*Prunus spinosa*) and hazel (*Corylus avellana*) as well as a number of trees of mixed age class, including field maple (*Acer campestre*), elm (*Ulmus sp.*) and a small fallen oak tree (*Quercus robur*).



Plates 6 & 7: Outgrown section of hedgerow with trees

### 4.3 *Protected & Important Species*

#### Plants

- 4.3.1 The only important or protected species of plant recorded within the 2km data search zone is bluebell (*Hyacinthoides non-scripta*), which is recorded approximately 1.5km to the north in Ninno Wood and approximately 1.5km to the south of the application site. Bluebells are not recorded on the application site itself and the habitats on site are not considered optimal for this species.

- 4.3.2 The application site is primarily cropland, currently sown with a haylage grass mix, which provides poor and potentially nutrient-rich growing conditions, unlikely to support assemblages of protected or important plants. It is therefore suggested that the application site has a negligible value to important species of plant.

#### Invertebrates

- 4.3.3 There are many records of important invertebrates within the 2km radius data search zone, mainly comprising butterflies and moths, although Roman snail (*Helix pomatia*) is also recorded approximately 1.5km north of the site. Whilst the presence of important species of invertebrate is not discounted from within the application site, the site's lack of size, structural diversity and variety of flora would indicate that it is unlikely to be important to protected and important assemblages of invertebrates.

#### Amphibians

- 4.3.4 There are a number of great crested newt (GCN) records within the 2km data search radius within the last 10 years, of which the closest is approximately 500m away, however most are beyond this distance, and considered unlikely to disperse to the application site from such distances. There are also large barriers to newt dispersal towards the application site from these recorded areas such as the A120 bypass and River Ash.
- 4.3.5 The application site supports no open water and the nearest pond is over 300m away with poor connecting habitat. It is acknowledged that the majority of any great crested newt population will generally be found within 250m of their natal pond (Froglife 2001), and Natural England advises that the vast majority of the newts would be found within 50m of their natal pond (English Nature 2001). Research carried out on behalf of Natural England by Cresswells (*Cresswell and Whitworth 2004*) found that most newts are captured within 50m of the natal pond, with decreasing numbers the greater the distance from the pond, resulting in very few captures beyond 100m, suggesting that terrestrial land beyond 100m is unlikely to be important to the newt population. The terrestrial habitat on site, in particular the cropland, is considered suboptimal and although the hedgerow and tall forbs are considered suitable for newts, these areas are very small and are largely isolated from other suitable habitat

and therefore it is considered that GCNs are unlikely to be utilising the site at this time and it is unlikely to be of value to important amphibians.

#### Reptiles

- 4.3.6 There are no records of reptiles within the 2km data search radius within the last 10 years. Although the application site contains some habitat that may be used by dispersing reptiles, this habitat is small in area, sub optimal and combined with the lack of local records, the value of the application site to reptiles is deemed to be negligible, at this time.

#### Birds

- 4.3.7 There are numerous records of important and protected species of bird within the 2km radius data search area, however there is very limited bird nesting habitat within the application site, confined to the small section of hedgerow with trees. This habitat holds potential for common bird nesting however it is considered sub-optimal nesting habitat for important birds, such as the Schedule 1 species found in the 2km data search radius, which either do not breed in this geographical region, or require buildings, tall mature trees, riverbanks or alternative habitats to nest in. Schedule 1 species recorded in the locality are barn owl (*Tyto alba*), fieldfare (*Turdus pilaris*), redwing (*Turdus iliacus*), hobby (*Falco subbuteo*), merlin (*Falco columbarius*), kingfisher (*Alcedo atthis*), green sandpiper (*Tringa ochropus*) and red kite (*Milvus milvus*).

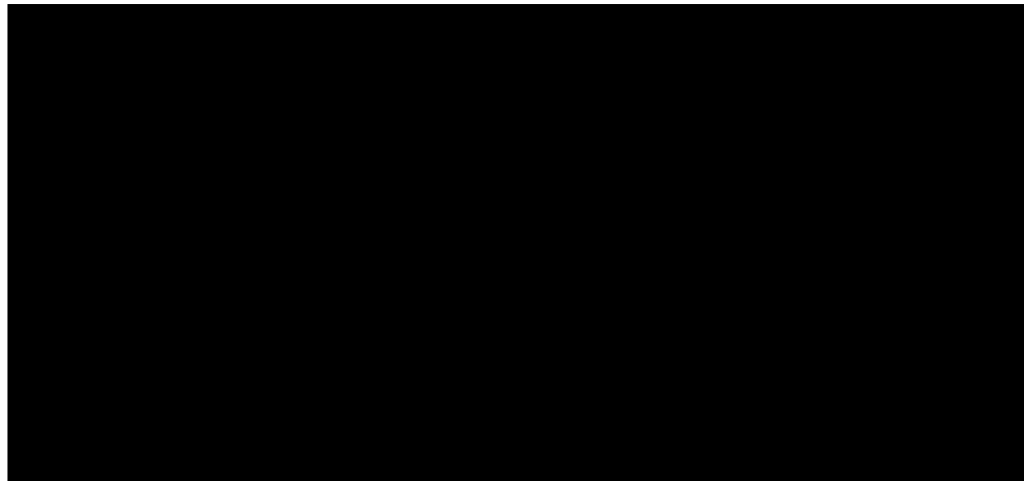
- 4.3.8 It was therefore concluded that, although the presence of common nesting birds should not be precluded at the appropriate time of year and the hedgerow with trees must be checked before any works to it, this site is not considered likely to be used by important species of bird. In addition, the small size of suitable habitat indicates it is unlikely to be important to the local bird population, at this time.

#### Bats

- 4.3.9 There are many bat records within the 2km data search, of 10 species, including common pipistrelle (*Pipistrellus pipistrellus*) and brown long eared (*Plecotus auritus*), as well as rarer bats such as barbastelle (*Barbastella barbastellus*). Although there is only one species (common pipistrelle), recorded within the same 1km grid square as the application site, it was considered that bats are

likely to be in the locality given the number of old buildings, wooded areas and the River Ash which lies a short distance to the east of the application site, which provide good quality roosting and foraging habitat. The application site itself supports some limited habitat that could provide potential roosting features for bats; specifically, the ivy-covered trees which provide crevices and voids between thick ivy stems and the tree. The cropland which makes up the majority of the site is considered to offer low quality bat feeding and foraging habitat. Bats may be foraging along the hedgerow that borders the roadside, including the small section within the application site boundary however, as this section is so small and isolated, it is not considered likely that it is a significant foraging or commuting route for bats, at this time.

4.3.10



#### 4.4 *Other Important Species*

4.4.1 Brown hare (*Lepus europaeus*) and hedgehog (*Erinaceus europaeus*) are both recorded within the 2km radius data search zone. Although there are records within 0.5km of the application site for both species, barriers to dispersal such as the River Ash and Albury Road, limit the likelihood of dispersal into the application site. The application site is also considered unlikely to be of significant value to these species due to its small size, and limited areas of suitable habitat. Beyond the small section of hedgerow, the cropland and tall forbs are considered sub-optimal habitat for brown hare and hedgehog. There is some limited connectivity of habitat to more optimal garden habitat, hedgerows and other areas of farmland but no indicative evidence of use of the application site. Whilst the occasional presence of dispersing or transient hedgehogs and hares should not be precluded, it is considered that that the



application site itself is of negligible value to brown hare and hedgehog at this time.

#### 4.5 *Results of Biodiversity Metric On-Site Baseline Calculations*

##### Site Habitat Baseline

Habitat	Area (ha)	Habitat Condition	Habitat Units
Cropland –Cereal Crops	0.64	Condition Assessment N/A	1.28
Tall forbs	0.01	Poor	0.02
<b>Totals</b>	<b>0.65</b>		<b>1.30</b>

##### Site Hedge Baseline

Hedge No.	Hedgerow Type	Length (km)	Habitat Condition	Habitat Units
1	Native hedgerow with trees	0.05	Good	0.60
<b>Totals</b>		<b>0.05</b>		<b>0.60</b>

## 5.0 Ecological Evaluation and Development Constraints

- 5.1.1 The application site consists of a small area of cropland, currently sown with a haylage grass mix, and an area of hedgerow and tall forbs along the north-western boundary. None of these habitats are considered ecologically important although all native hedgerows are automatically designated Habitats of Principal Importance. The loss of this hedgerow and the other habitats on site, through development, is considered to have a negligible adverse impact on significant ecology.
- 5.1.2 The application site is not designated a site of nature conservation importance and it is considered highly unlikely that the development of the application site would have a negative significant effect on the nearest Local Wildlife Sites as there are a number of barriers to connectivity between these sites and the application site such as roads and the River Ash. The application site does lie within the IRZ of Patmore Heath SSSI.
- 5.1.3 The application site itself was found unlikely to have any significant value to important or protected species at this time although there are some minor considerations that must be taken into account to avoid harm or disturbance to protected species groups.
- 5.1.4 There is potential for small numbers of common nesting birds in the hedgerow with trees, a precautionary approach is therefore proposed to work in these areas, so as not to harm nesting birds.
- 5.1.5 Similarly, there is some potential for roosting bats under the ivy which has grown on some of the hedgerow trees. A precautionary approach is proposed to any removal and/or works to the hedgerow with trees, so as not to damage roosts or injure/disturb roosting bats.
- 5.1.6 Although there may be the potential for the occasional transient mammal such as [REDACTED] brown hare or hedgehog, the application site is not deemed an important site for foraging or dispersal due to its small size, limited connectivity to more optimal habitat and lack of field signs indicating usage.
- 5.1.7 The application site is deemed to be ecologically unimportant with no realistic significant importance to protected or important species or habitats. Other than a precautionary approach to the tree/hedgerow removal for potential

roosting bats and nesting birds, there are no significant ecological constraints to the development of the site.

## 5.2 *Mitigation Measures*

### Mammals

- 5.2.1 To protect potentially foraging mammals during the construction phase of the development, any trenches such as services and footings left open at night will either be covered by boarding or have a mammal ladder (in the form of a scaffold board) placed in the trench, to allow any [REDACTED] hedgehogs or hares to escape, should they fall into the trench.
- 5.2.2 All trenches left open at night will be checked by construction staff the following morning to ensure that there are no mammals, including [REDACTED] hares or hedgehogs, trapped or injured in the trench. The Ecologist will be informed immediately if a trapped or injured animal is discovered.
- 5.2.3 Exposed ends of pipe or servicing pipework will be capped or blocked overnight to ensure that mammals such as [REDACTED] hares or hedgehogs do not get stuck in the pipework.
- 5.2.4 Any signs or indications of sett excavation/digging by [REDACTED] within or immediately adjacent to the development footprint will be reported immediately to the ecologist, to ensure that the digging does not lead to the establishment of a sett.

### Nesting Birds

- 5.2.5 It is proposed that a suitably qualified ecologist first checks the trees and hedgerow for nesting birds immediately prior to tree works and removal. Any nesting birds found will delay the works to these habitats until the ecologist deems it safe to continue; this will ensure compliance with The Wildlife & Countryside Act 1981 (as amended), which protects birds' nests. This is particularly relevant during the nesting season (between March and September inclusive) however it is noted that some species may breed throughout the year so any works to the hedgerow and trees should always be approached with caution.

Bats

- 5.2.6 Should any of the trees within the hedgerow with trees, previously identified as having bat roosting potential, be felled or worked on, these should be inspected and/or re-assessed by the licensed bat ecologist, to ensure no bat roosts are destroyed without the correct procedures. Should a roost be discovered, the relevant European Protected Species Mitigation (EPSM) licence may need to be applied for, in order to appropriately mitigate and compensate for the loss of the roost(s).

**5.3 Biodiversity Net Gain**

- 5.3.1 The proposed mitigation and/or biodiversity enhancements discussed below are specific to this particular project and should form part of the design scheme for the application site. Their inclusion will ensure compliance with the NPPF and local planning policies. If ecological constraints are not mitigated or compensated for and a net gain in biodiversity not included in the design scheme, this may cause delays in the later stages of the planning process.
- 5.3.2 The creation of approximately 0.09ha of native mixed scrub planting, to buffer the development site from Albury Road, will provide 0.35 Habitat Units. An area of existing cropland, measuring approximately 0.15ha, to the south-east of the development footprint will be planted with a native wildflower mix, appropriate to the geographical area. This will provide a further 0.56 Habitat Units. These enhancements, coupled with the vegetated gardens and the planting of 25 small trees throughout the site will achieve an overall biodiversity net gain of +28% in Habitat Units.
- 5.3.3 In addition, to compensate for the loss of the existing hedgerow with trees along part of the site's frontage with Albury Road, the planting of approximately 0.18km of new native hedgerow with trees (worth 0.69 Hedgerow Units), will result in a +15.8% biodiversity net gain in Hedgerow Units.

Habitat Creation	Area (ha)	Habitat Units
Developed land, sealed surface	0.16	0.00
Vegetated garden	0.25	0.48
Mixed scrub	0.09	0.35
Urban tree	0.1	0.28
Other neutral grassland	0.15	0.56
<b>Totals</b>	<b>0.75</b>	<b>1.67</b>

Hedgerow Creation	Length (km)	Hedgerow Units
Native Hedgerow with trees	0.18	0.69
<b>Totals</b>	<b>0.18</b>	<b>0.69</b>

5.3.4 These BNG figures may require updating, should the proposed site layout change.

## 6.0 Conclusion

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- 6.1.1 The purpose of this report is to identify potential development constraints pertaining to biodiversity and planning policies for biodiversity with regard to the proposed development at Church End Farm, Albury Road, Little Hadham.
- 6.1.2 This Ecological Assessment has established that the application site is not designated as a site of nature conservation importance, however the application site is within the IRZ of Patmore Heath SSSI, which will require consideration with regard to impacts by the local planning authority and Natural England. No other designated sites are likely to be adversely impacted by the proposed development of the application site.
- 6.1.3 The development of the application site is not expected to significantly impact important or protected species or habitats although there are minor considerations necessary for occasional transient mammals, common nesting birds and roosting bats.
- 6.1.4 The hedgerow trees are considered to be suitable for common nesting birds and bat roosting. It is understood that this section of habitat is likely to be removed, therefore all mature trees with bat roosting potential within the application site will be checked by a licensed bat ecologist immediately prior to these works. Similarly, these habitats should be checked by a suitably qualified ecologist, for nesting birds and the hedgerow bottoms checked for loafing hedgehogs.
- 6.1.5 Overall, whilst there appears to be some potential for the application site to support protected species, the site is considered to be of low biodiversity value, mainly due to its small size and common, widespread habitats. Precautionary measures will avoid, mitigate and compensate for any predicted potential impacts on important species.



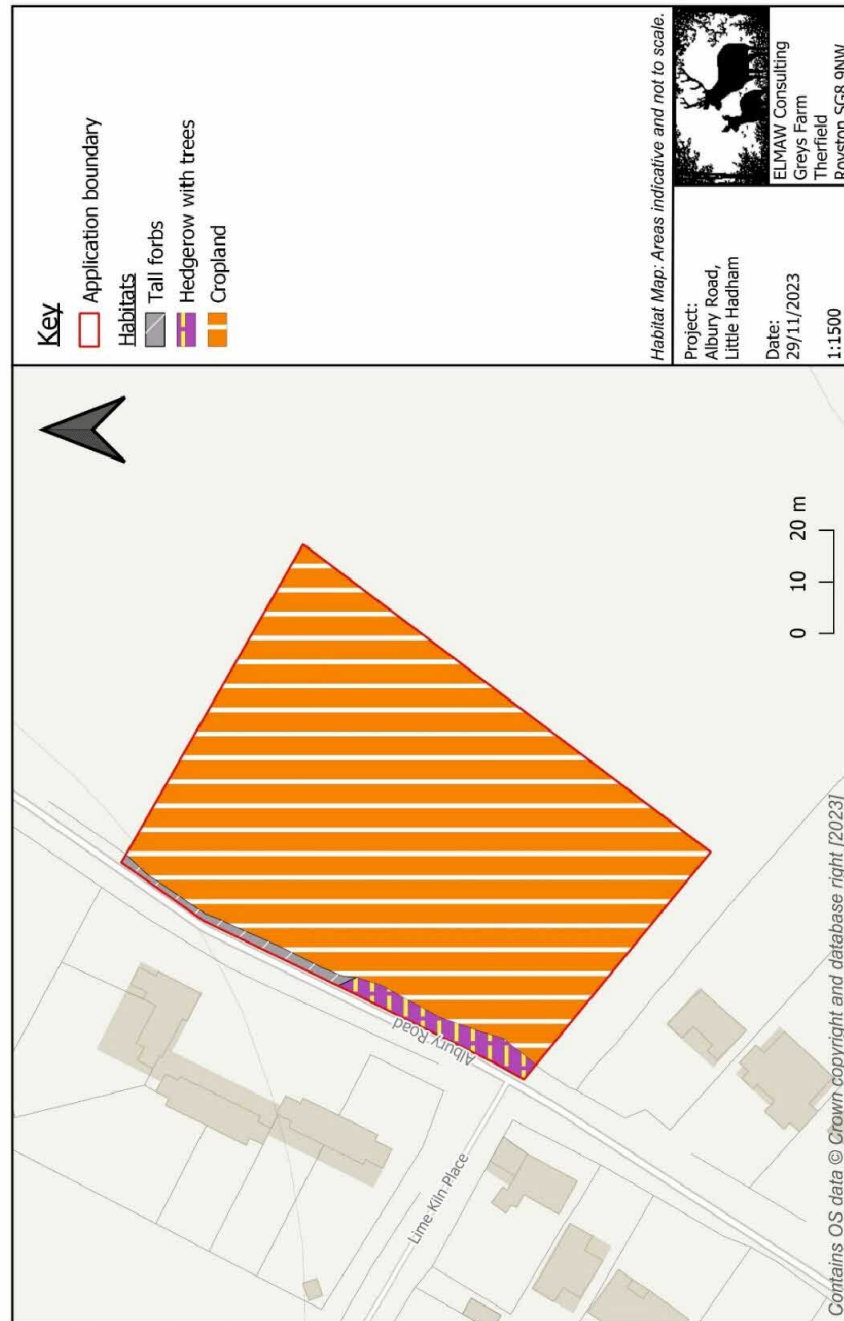
## 7.0 References

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- Ref. 1 Chartered Institute of Ecology and Environmental Management. 2017 *Guidelines for Preliminary Ecological Appraisal*
- Ref. 2 Chartered Institute of Ecology and Environmental Management. 2017 *Guidelines for Ecological Report Writing*
- Ref. 3 Joint Nature Conservation Committee. 2010. *Handbook for Phase 1 Habitat Survey* Revised re-print
- Ref. 4 UK Habitat Working Group (2018). *UK Habitat Classification*
- Ref. 5 Bat Conservation Trust. 2016. *Bat Surveys for Professional Ecologists Good Practice Guidelines 3<sup>rd</sup> Edition*
- Ref. 6 Sewell D, Griffiths RA, Beebee TJC, Foster J and Wilkinson JW 2013 *Survey Protocols for the British Herpetofauna Version 1.0*
- Ref. 7 Rose F 2006 *The Wildflower Key* Fredrick Warne & Co.
- Ref. 8 Hubbard CE, 1992 *Grasses 3rd Edition* Penguin Books
- Ref. 9 CIEEM (2021). *Biodiversity Net Gain Report and Audit Templates* Chartered Institute of Ecology and Environmental Management, Winchester, UK.

8.0 Appendix 1

8.1 Habitat Map



## 9.0 Appendix 2

### 9.1 Botanical Species List

<b>Trees and Shrubs</b>	
Blackthorn	<i>Prunus spinosa</i>
Dog rose	<i>Rosa canina</i>
Elm species	<i>Ulmus sp.</i>
Field maple	<i>Acer campestre</i>
Hawthorn	<i>Crataegus monogyna</i>
Hazel	<i>Corylus avellana</i>
Oak	<i>Quercus robur</i>
<b>Herbs</b>	
Bracken	<i>Pteridium aquilinum</i>
Bristly oxtongue	<i>Helminthotheca echioides</i>
Clematis	<i>Clematis vitalba</i>
Creeping thistle	<i>Cirsium arvense</i>
Hogweed	<i>Heracleum sphondylium</i>
Stinging nettle	<i>Urtica dioica</i>
<b>Grasses/ Sedges</b>	
Cock's-foot	<i>Dactylis glomerata</i>
Couch grass	<i>Agropyron repens</i>
False-oat grass	<i>Arrhenatherum elatius</i>

## 10.0 Appendix 3: Condition Reports

### 10.1 Hedgerow with Trees

Condition sheet: HEDGEROW Habitat Types				
Habitat Type				
Native hedgerow				
Native hedgerow - associated with bank or ditch				
Native hedgerow with trees				
Native hedgerow with trees - associated with bank or ditch				
Species-rich native hedgerow				
Species-rich native hedgerow - associated with bank or ditch				
Species-rich native hedgerow with trees				
Species-rich native hedgerow with trees - associated with bank or ditch				
Habitat Description				
Native hedgerow with trees				
See the Biodiversity Metric 4.0 User Guide Section 9.				
Each attribute is assigned to one of five functional groups (A – E) and the condition of a hedgerow is assessed according to the number of attributes from these functional groups which pass or fail the 'favourable condition' criteria.				
Site name and location	Land off Albury Road, Little Hadham		On-site or off-site	
Limitations (if applicable)			Survey reference (if relating to a wider survey)	
Grid reference			Habitat parcel reference	
Condition Assessment Criteria				
A series of ten attributes, representing key physical characteristics are used for this assessment. This assessment is based on the Hedgerow Survey Handbook <sup>1</sup> and Favourable Conservation Status document <sup>2</sup> . For further clarification please refer to the Hedgerow Survey Handbook.				
Each attribute is assigned to one of five functional groups (A – E) and the condition of a hedgerow is assessed according to the number of attributes from these functional groups which pass or fail the 'favourable condition' criteria.				
Hedgerow favourable condition attributes				
Attributes and functional groupings (A, B, C, D and E)	Criteria - the minimum requirements for 'favourable condition'	Description	Criterion passed (Yes or No)	Notes (such as justification)
Core groups - applicable to all hedgerow types				
A1.	Height	>1.5 m average along length	Yes	
			The average height of woody growth estimated from base of stem to the top of the shoots, excluding any bank beneath the hedgerow, any gaps or isolated trees.	
			Newly laid or coppiced hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice).	
			A newly planted hedgerow does not pass this criterion (unless it is >1.5 m height).	
A2.	Width	>1.5 m average along length	Yes	
			The average width of woody growth estimated at the widest point of the canopy, excluding gaps and isolated trees.	
			Outgrowths (such as blackthorn <i>Prunus spinosa</i> suckers) are only included in the width estimate when they are >0.5 m in height.	
			Laid, coppiced, cut and newly planted hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice).	
B1.	Gap - hedge base	Gap between ground and base of canopy <0.5 m for >90% of length	Yes	
			This is the vertical 'gappiness' of the woody component of the hedgerow, and its distance from the ground to the lowest leafy growth.	
			Certain exceptions to this criterion are acceptable (see page 65 of the Hedgerow Survey Handbook).	
B2.	Gap - hedge canopy continuity	Gaps make up <10% of total length; and No canopy gaps >5 m	No	
			This is the horizontal 'gappiness' of the woody component of the hedgerow. Gaps are complete breaks in the woody canopy (no matter how small).	
			Access points and gates contribute to the overall 'gappiness' but are not subject to the >5 m criterion (as this is the typical size of a gate).	

C1.	Undisturbed ground and perennial vegetation	>1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length; - Measured from outer edge of hedgerow; and - Is present on one side of the hedgerow (at least).	This is the level of disturbance (excluding wildlife disturbance) at the base of the hedgerow.  Undisturbed ground is present for at least 90% of the hedgerow length, greater than 1 m in width and must be present along at least one side of the hedgerow.  This criterion recognises the value of the hedgerow base as a boundary habitat with the capacity to support a wide range of species. Cultivation, heavily trodden footpaths, poached ground etc. can limit available habitat niches.	Yes	
C2.	Nutrient-enriched perennial vegetation	Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground.	The indicator species used are nettles <i>Urtica</i> spp., cleavers <i>Galium aparine</i> and docks <i>Rumex</i> spp. Their presence, either singly or together, does not exceed the 20% cover threshold.	No	
D1.	Invasive and neophyte species	>90% of the hedgerow and undisturbed ground is free of invasive non-native plant species (including those listed on Schedule 9 of WCA <sup>1</sup> ) and recently introduced species.	Recently introduced species refer to plants that have naturalised in the UK since AD 1500 (neophytes). Archaeophytes count as natives. For information on archaeophytes and neophytes see the JNCC website <sup>4</sup> , as well as the BSBI website <sup>5</sup> where the 'Online Atlas of the British and Irish Flora' <sup>6</sup> contains an up-to-date list of the status of species. For information on invasive non-native species see the GB Non-Native Secretariat website <sup>7</sup> .	Yes	
D2.	Current damage	>90% of the hedgerow or undisturbed ground is free of damage caused by human activities.	This criterion addresses damaging activities that may have led to or lead to deterioration in other attributes.  This could include evidence of pollution, piles of manure or rubble, or inappropriate management practices (e.g., excessive hedgerow cutting).	Yes	
<b>Additional group - applicable to hedgerows with trees only</b>					
E1.	Tree class	There is more than one age-class (or morphology) of tree present (for example: young, mature, veteran and or ancient <sup>8</sup> ), and there is on average at least one mature, ancient or veteran tree present per 20 - 50m of hedgerow.	This criterion addresses if there are a range of age-classes or morphologies which allow for replacement of trees and provide opportunities for different species.	Yes	
E2.	Tree health	At least 95% of hedgerow trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	This criterion identifies if the trees are subject to damage which compromises the survival and health of the individual specimens.	Yes	
The hedgerow condition assessment generates a weighting (score) ranging from 1 - 3, which is used within the metric. The scores for each are set out in the tables below.					
<b>Condition categories for hedgerows without trees</b>					
<b>Category</b>	<b>Category Requirements</b>		<b>Metric Score</b>		
Good	No more than 2 failures in total; <b>AND</b> No more than 1 failure in any functional group.		3		
Moderate	No more than 4 failures in total; <b>AND</b> <b>Does not fail both attributes</b> in more than one functional group (e.g. fails attributes A1, A2, B1 and C2 = Moderate condition).		2		
Poor	Fails a total of more than 4 attributes; <b>OR</b> Fails both attributes in more than one functional group (e.g. fails attributes A1, A2, B1 and B2 = Poor condition).		1		
<b>Score achieved:</b>					
<b>Condition categories for hedgerows with trees</b>					
<b>Category</b>	<b>Category Requirements</b>		<b>Metric score</b>		
Good	No more than 2 failures in total; <b>AND</b> No more than 1 failure in any functional group.		3		
Moderate	No more than 5 failures in total; <b>AND</b> <b>Does not fail both attributes</b> in more than one functional group (e.g., fails attributes A1, A2, B1, C2 and E1 = Moderate condition).		2		
Poor	Fails a total of more than 5 attributes; <b>OR</b> Fails both attributes in more than one functional group (e.g. fails attributes A1, A2, B1 and B2 = Poor condition).		1		
<b>Score achieved:</b> 3					



## 10.2 Sparsely Vegetated Land - Tall Forbs

Condition Sheet: URBAN Habitat Type			
<b>Habitat Type</b>			
Where a parcel contains areas of higher distinctiveness habitats within it, then the area of higher distinctiveness habitat must be separated and recorded and assessed as such.			
<b>Sparsely vegetated land - Ruderal/Ephemeral</b>			
<b>Sparsely vegetated land – Tall forbs</b>			
Urban – Allotments			
Urban – Biodiverse green roof			
Urban - Bioswale			
Urban - Cemeteries and churchyards			
Urban - Facade-bound green wall			
Urban - Ground based green wall			
Urban - Intensive green roof			
Urban - Open mosaic habitats on previously developed land			
Urban - Rain garden			
Urban - Sustainable drainage system (SuDS)			
Urban - Vacant or derelict land			
Urban – Bare ground			
<b>Habitat Description</b>			
Sparsely vegetated land - Tall forbs			
See Biodiversity Metric 4.0 User Guide for green roofs and UK Habitat Classification (UKHab) for other habitats:			<a href="#">UKHab – UK Habitat Classification</a>
<b>Site name and location</b>	Land at Albury Road, Little Hadham	<b>On-site or off-site</b>	
<b>Limitations (if applicable)</b>		<b>Survey reference (if relating to a wider survey)</b>	
<b>Grid reference</b>		<b>Habitat parcel reference</b>	
<b>Condition Assessment Criteria</b>		<b>Criterion passed (Yes or No)</b>	<b>Notes (such as justification)</b>
<b>Core Criteria - must be assessed for all urban habitat types:</b>			
A	Vegetation structure is varied, providing opportunities for vertebrates and invertebrates to live, eat and breed. A single structural habitat component or vegetation type does not account for more than 80% of the total habitat area.	No	
B	The habitat parcel contains different plant species that are beneficial for wildlife, for example flowering species providing nectar sources for a range of invertebrates at different times of year.	No	
C	Invasive non-native plant species (listed on Schedule 9 of WCA <sup>1</sup> ) and others which are to the detriment of native wildlife (using professional judgement) <sup>2</sup> cover less than 5% of the total vegetated area <sup>3</sup> .  <b>Note - to achieve Good condition, this criterion must be satisfied by a complete absence of invasive non-native species (rather than &lt;5% cover).</b>	Yes	
<b>Essential criteria relevant for habitat type achieved (Yes or No)</b>			Yes
<b>Number of criteria passed</b>			1
<b>Condition Assessment Result</b>	<b>Condition Assessment Score</b>	<b>Score Achieved x/</b>	
<b>Results for habitats requiring assessment of 3 core criteria only (all listed urban habitats except Open mosaic habitat on previously developed land, Bioswale, SuDS and Green roofs):</b>			
• Passes all 3 core criteria; AND • Meets the requirements for Good condition within criterion C.	Good (3)		
• Passes 2 of 3 core criteria; OR • Passes 3 of 3 core criteria but does not meet the requirements for Good condition within criterion C.	Moderate (2)		
• Passes 0 or 1 of 3 core criteria.	Poor (1)	✓	