



Preliminary Ecological Appraisal

Land at Titmore Green Farm, Stevenage

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LIABILITIES:

Whilst every effort has been made to guarantee the accuracy of this report, it should be noted that living animals and plants are capable of migration/establishing. Whilst such species may not have been located during the survey duration, their presence may be found on a site at a later date. This report provides a snap shot of the species that were present at the time of the survey only and does not consider seasonal variation. Furthermore, where access is limited or the site supports habitats which are densely vegetated, only dominant species may be recorded.

The recommendations contained within this document are based on a reasonable timeframe between the completion of the survey and the commencement of any works. If there is any delay between the commencement of works that may conflict with timeframes laid out within this document, or have the potential to allow the ingress of protected species, a suitably qualified ecologist should be consulted.

It is the duty of care of the landowner/developer to act responsibly and comply with current environmental legislation if protected species are suspected or found prior to or during works.

1.0 INTRODUCTION

Background

1.1 The Ecology Partnership was commissioned by Wealden Beesley to undertake a Preliminary Ecological Appraisal (PEA) assessment of Land at Titmore Green Farm, Titmore Green, Stevenage, SG4 7JT, hereafter referred to as the 'site' (Figure 1).

1.2 The key objectives of a PEA (CIEEM 2017) are to:

- Identify the likely ecological constraints associated with a project;
- Identify any mitigation measures likely to be required, following the 'Mitigation Hierarchy' (CIEEM 2016; BSI 2013, Clause 5.2);
- Identify any additional surveys that may be required to inform an Ecological Impact Assessment (EcIA); and
- Identify the opportunities offered by a project to deliver ecological enhancement.

1.3 This report comprises the:

- Legislative and planning context (Section 1);
- Assessment methodologies (Section 2);
- Results (Section 3);
- Implications for development (Section 4);
- An impact assessment (Section 5); and
- Conclusions (Section 6).

Site Context

1.4 The site (TL 21377 26486) is approximately 0.5 ha and includes farm buildings, hardstanding, artificial unsealed surface, modified grassland and a ruderal/ephemeral menage. The wider landscape consists of commercial and residential buildings and grassland.

1.5 The site is split into two different application boundaries that adjoin each other (Figure 1 & 2).



Figure 1: Red line boundary for area 1.



Figure 2: Red line boundary for area 2.

Proposed Development

- 1.6 There are two separate applications for this site, these are detailed as follows. The first is for the change of use of an agricultural building into a 5-bedroom residential dwelling, external alterations and re-cladding and the demolition of the outdoor menage. The proposals also include the re-cladding and external alterations to Atcost Barn for use with the dwelling, with associated parking and landscaping (Figure 3).
- 1.7 The second is for the change of use of an agricultural barn into three business/storage units, with external alterations and re-cladding. These proposals also include the demolition of the open storage yard, layout for parking, construction of a cycle store and associated landscaping (Figure 4).

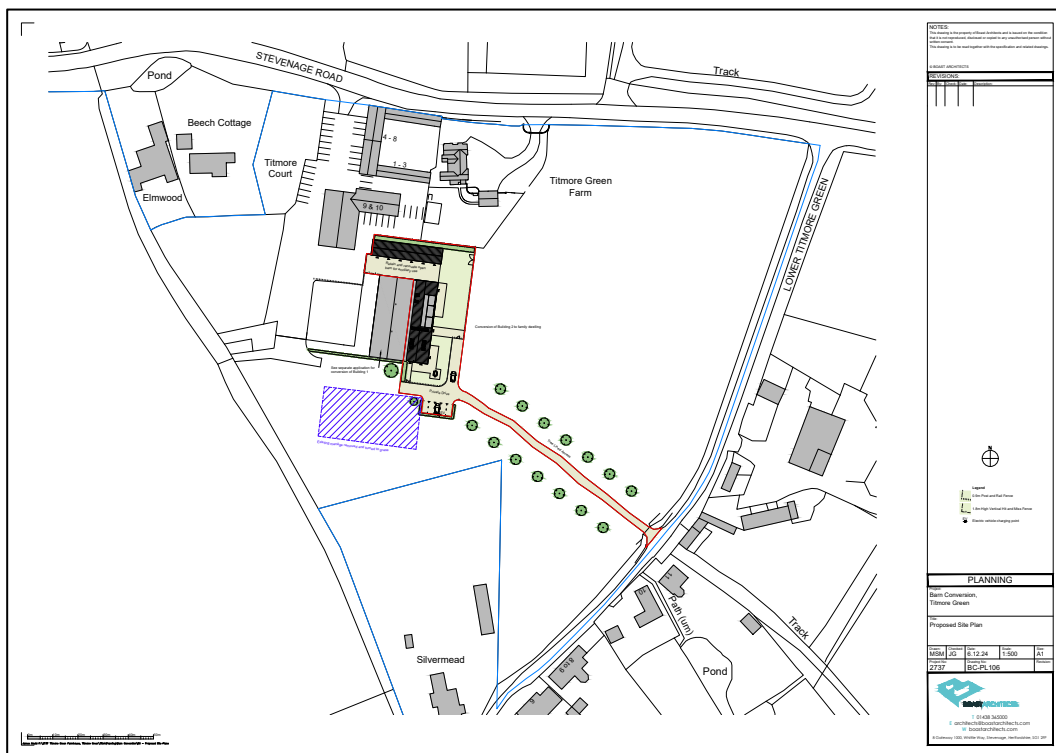


Figure 3: Proposed development for area 1 (Boast Architects 2024).

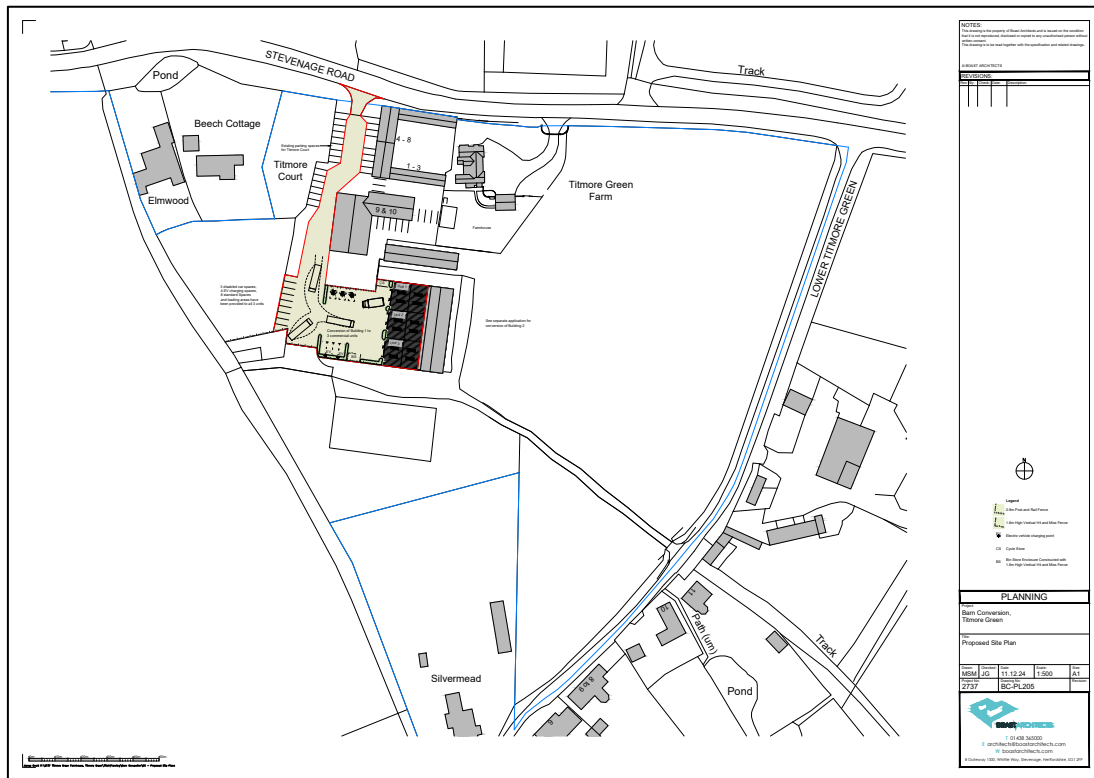


Figure 4: Proposed development for area 2 (Boast Architects 2024).

Planning Policies

- 1.8 The site was surveyed to assess its ecological value and to ensure the proposals were compliant with relevant planning policy and legislation. Policy guidance is provided by the National Planning Policy Framework (NPPF 2024) as well as policies from North Hertfordshire District Council. The North Hertfordshire District Local Plan was adopted in 2022 and contains policies relating to ecology which are relevant to the site. These policies include:

- **Policy SP11: Natural Resources and Sustainability**
- **Policy SP12: Green Infrastructure, landscape and biodiversity**

- 1.9 The Environment Bill received Royal Assent on 9th November 2021 and is now enacted as the Environment Act 2021. Part 6 (Nature and Biodiversity) and Schedule 14 of the Environment Act 2021 insert a new section 90A and Schedule 7A into the Town and Country Planning Act 1990 (TCPA), which contain the provisions requiring mandatory biodiversity net gain for development granted planning permission pursuant to the TCPA. These provisions are enacted through implementing legislation, they require developments to provide a biodiversity value post-

development that exceeds the predevelopment biodiversity value of the onsite habitats by at least 10%.

1.10 The site has therefore been surveyed to assess its ecological value and to ensure compliance with national and local plan policies and other relevant nature conservation legislation including the Wildlife and Countryside Act 1981, Natural Environment and Rural Communities Act 2006, and the Conservation of Habitats and Species (EU Exit) Regulations 2019.

1.11 The report has been produced with reference to current guidelines for PEA (CIEEM 2017) and in accordance with BS 42020:2013 Biodiversity – Code of Practice for Planning and Development.

2.0 METHODOLOGY

Desktop Study

2.1 A desktop study was completed using an internet-based mapping service (www.magic.gov.uk) for statutory designated sites and an internet-based aerial mapping service (maps.google.co.uk) was used to understand the habitats present in and around the site, including identifying habitat linkages and features (ponds, woodlands etc.) within the wider landscape.

UK Hab Survey

2.2 The site was surveyed on 20th March 2024 by Digby Hayden BSc (Hons) and Natasha Wilson BSc (Hons). The surveyors identified the habitats present, following the standard UK Habitat classification system (UKHab). The site was surveyed on foot and the existing habitats and land uses were recorded on an appropriately scaled map (JNCC 2010).

Additional Protected Species Assessments

2.3 Any evidence of additional protected species was recorded. Standard methods of search and measures of presence, or likely presence based on habitat suitability were used for bats in trees (Collins 2016), breeding birds (BTO 2020), hazel dormice *Muscardinus avellanarius* (Bright *et al.* 2006), great crested newts (ARG 2010), reptiles (Froglife 2015), badgers *Meles meles* (Creswell *et al.* 1990) and water voles *Arvicola amphibius* (Strachan *et al.* 2011).

Limitations

- 2.4 It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no single investigation could ensure the complete characterisation and prediction of the natural environment. The site was visited over the period of one site visit, as such seasonal variations cannot be observed and potentially only a selection of all species that potentially occur within the site have been recorded. Therefore, the survey provides a general assessment of potential nature conservation value of the site and does not include a definitive plant species list.
- 2.5 The protected species assessment provides a preliminary view of the likelihood of protected species occurring on-site, based on the suitability of the habitat and any direct evidence on site. It should not be taken as providing a full and definitive survey of any protected species group. The assessment is only valid for the time when the survey was carried out. Additional surveys may be recommended if, on the basis of this assessment it is considered reasonably likely that protected species may be present.

3.0 RESULTS**Desktop Study**

- 3.1 There are no internationally designated sites located within 10km of the site (Figure 5):
- 3.2 Similarly, there are no statutory designated sites located within 2km of the site (Figure 6):

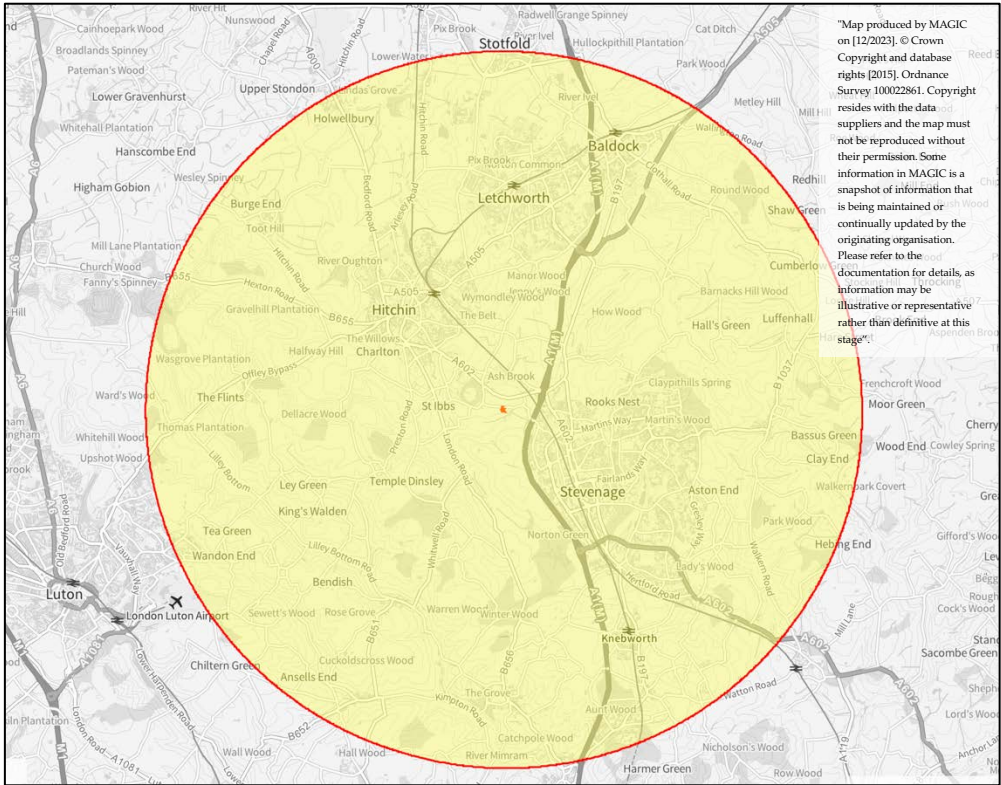


Figure 5: Internally designated sites within 10km of the site.

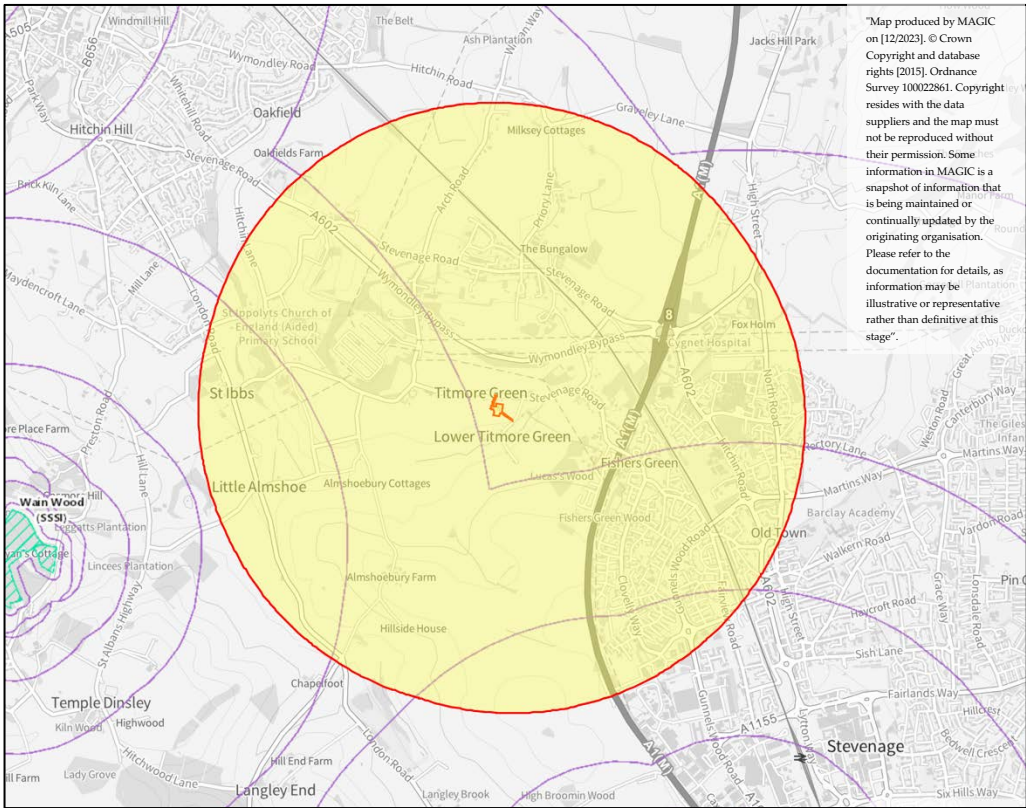


Figure 6: Statutory designated sites within 2km of the site

3.3 There are four non-statutory designated sites within 1km of the site. these are all local wildlife sites (LWS) and detailed within Table 1 below.

Table 1: Non-statutory site located within 1km of the site.

Site name	Reason for designation	Distance/Orientation from site
Wymondley Transforming Station LWS	Calcareous grassland	660m west
Margaret's Wood & Spoil Bank Wood, Todds Green LWS	Ancient woodland	710m east
Lucas Wood LWS	Ancient woodland	540m south-east
Fishers Green Wood LWS	Ancient woodland	970m south-east

3.4 There are also several units of priority habitat within 2km of the site (Figure 7), the closest of each type include:

- Traditional orchards along the western boundary of the site;
- Deciduous woodland located approximately 300m north-east of the site;
- Ancient & semi-natural woodland located approximately 420m south-east of the site.
- Open mosaic habitat located approximately 1.6km north-east of the site.

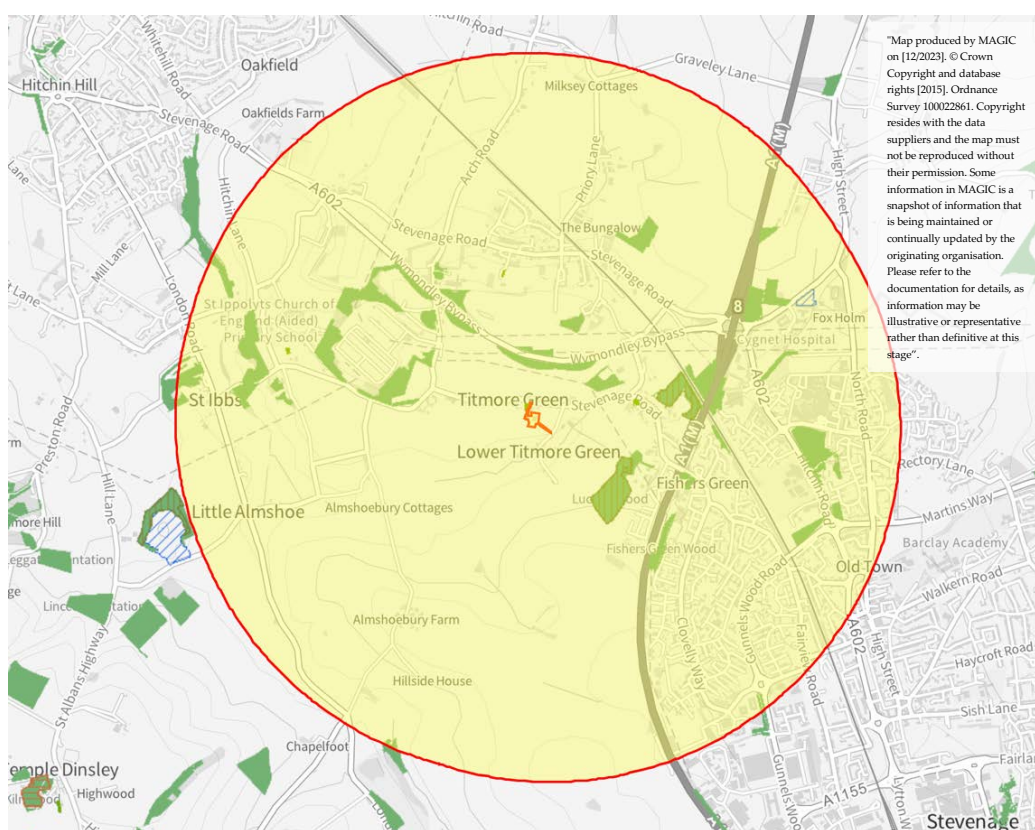


Figure 7: Priority habitat within 2km of the site. Deciduous woodland (dark green), ancient and semi natural woodland (green vertical hatching), open mosaic habitat (blue hatching) and traditional orchards (lime green).

3.5 OS maps and aerial imagery indicate there are no ponds located on site, and seven ponds located within 250m of the site (Figure 8).

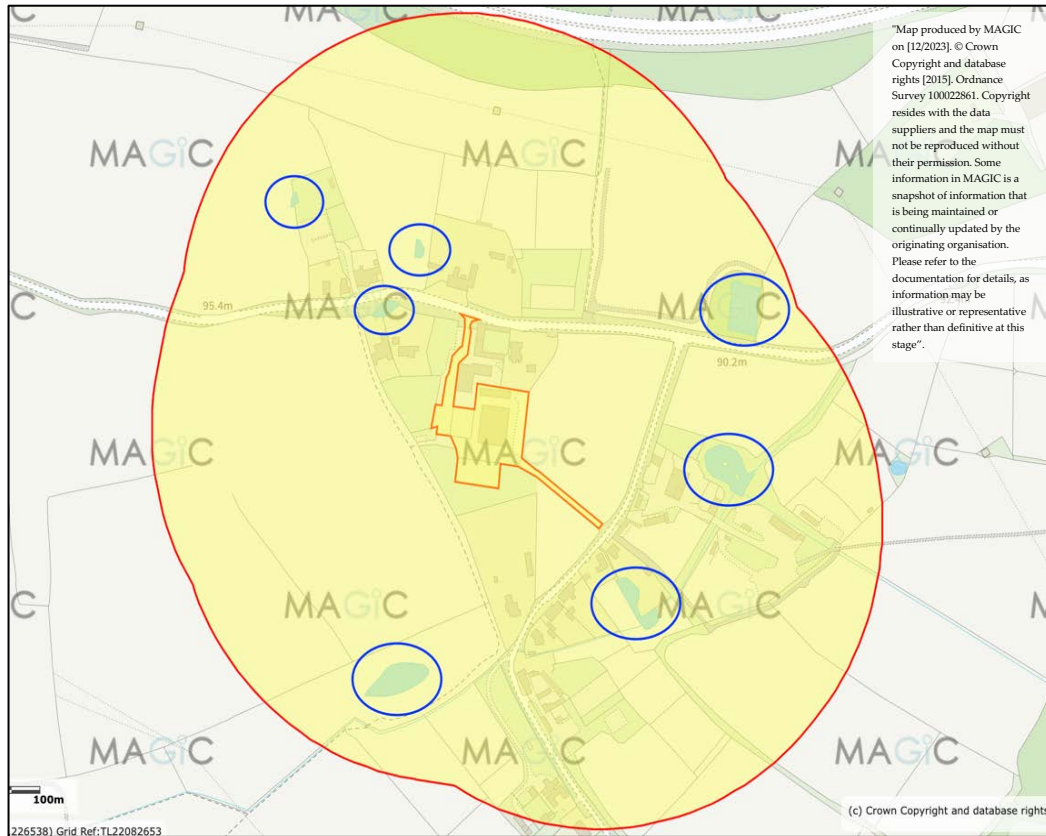


Figure 8: Ponds located within 250m of the site.

3.6 The desktop study revealed that there were six European Protected Species (EPS) licences and one Class Licence Returns within a 2km radius of the red line boundary (Table 2) (Figure 9).

Table 2: EPSM licences located within 2km of the site.

Species	Distance/Orientation from site	License Type	License Duration/Date	Comments
Common & soprano pipistrelle	550m west	Destruction of a resting place	01/11/2017 – 30/04/2018	N/a
Great crested newt	700m north-east	Class License Return	02/09/2015	Present
Great crested newt	830m north	Destruction of a resting place	13/08/2014 – 30/04/2016	N/a
Great crested newt	830m north	Destruction of a resting place	12/08/2015 – 31/05/2016	N/a
Common pipistrelle & brown long-eared bat	1.5km west	Destruction of a resting place	03/06/2009 – 01/05/2011	N/a
		Destruction of a breeding site		
Common pipistrelle & brown long-eared bat	1.5km west	Destruction of a resting place	03/06/2009 – 01/05/2011	N/a
		Destruction of a breeding site		

Common pipistrelle	1.8km west	Destruction of a resting place	22/12/2017 – 31/12/2024	N/a
		Destruction of a breeding site		

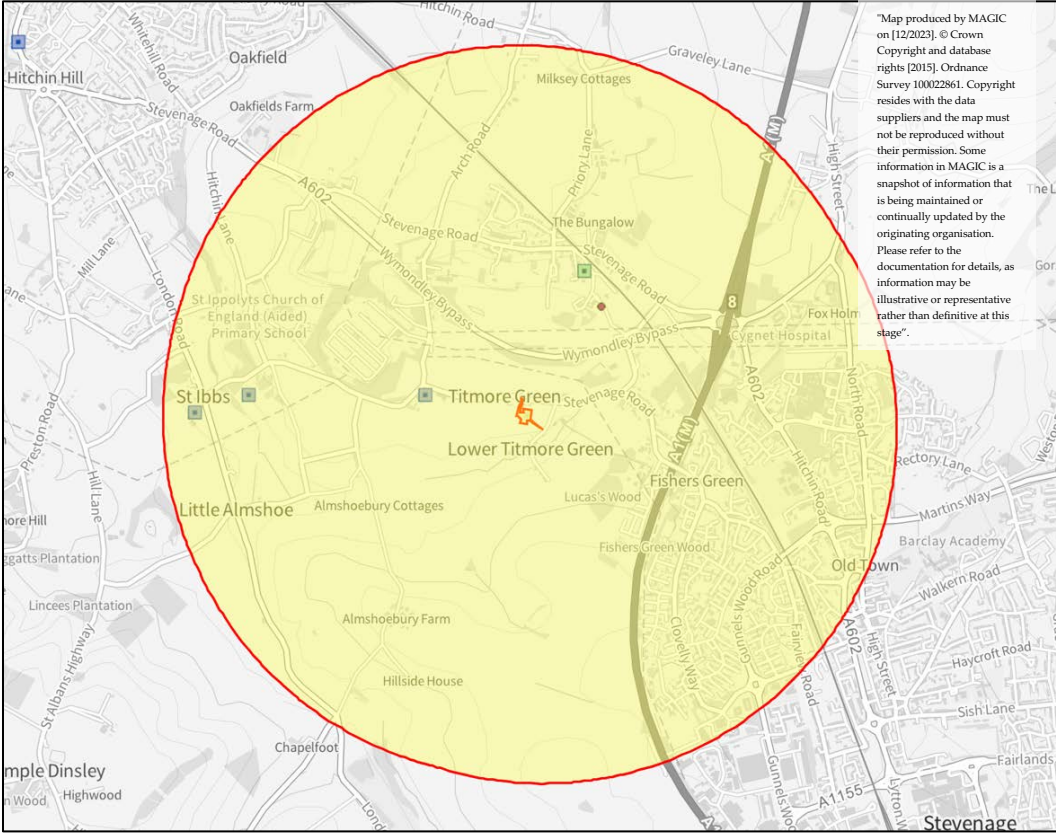


Figure 9: Location of EPS licences (blue squares) within 2km of the site.

3.7 A 1km records search was requested from HERC. The records closest to site, recorded within the last 10 years and relevant to the habitats on site have been included in Table 3.

Table 3: Species records within 1km of the site boundary in the past 10 years

Species	Status	Closest Record
Great crested newt <i>Triturus cristatus</i>	Wildlife and Countryside Act (1981 as amended) Schedule 5 Section 9; NERC Act (2006) Section 41; Habitat & Species Directive (1992) Annex 2 & 4	780m north-east (25/05/2018)
Eurasian badger <i>Meles meles</i>	Protection of Badgers Act 1992	330m west (15/03/2015)
West European hedgehog <i>Erinaceus europaeus</i>	NERC Act (2006) Section 41	450 west (08/01/2020)
Noctule bat <i>Nyctalus noctula</i>	Wildlife and Countryside Act (1981 as amended) Schedule 5 Section 9; NERC Act (2006) Section 41; Habitat & Species Directive (1992) Annex 4	600m north-west (within 10 years)

Common pipistrelle <i>Pipistrellus pipistrellus</i>	Wildlife and Countryside Act (1981 as amended) Schedule 5 Section 9; NERC Act (2006) Section 41; Habitat & Species Directive (1992) Annex 4	600m north-west (within 10 years)
Soprano pipistrelle <i>Pipistrellus pygmaeus</i>	Wildlife and Countryside Act (1981 as amended) Schedule 5 Section 9; NERC Act (2006) Section 41; Habitat & Species Directive (1992) Annex 4	600m north-west (within 10 years)
Nathusius pipistrelle <i>Pipistrellus nathusii</i>	Wildlife and Countryside Act (1981 as amended) Schedule 5 Section 9; NERC Act (2006) Section 41; Habitat & Species Directive (1992) Annex 4	600m north-west (within 10 years)
Brown long-eared bat <i>Plecotus auritus</i>	Wildlife and Countryside Act (1981 as amended) Schedule 5 Section 9; NERC Act (2006) Section 41; Habitat & Species Directive (1992) Annex 4	600m north-west (within 10 years)
Natterer's bat <i>Myotis nattereri</i>	Wildlife and Countryside Act (1981 as amended) Schedule 5 Section 9; NERC Act (2006) Section 41; Habitat & Species Directive (1992) Annex 4	600m north-west (within 10 years)
Barn owl <i>Tyto alba</i>	Wildlife and Countryside Act (1981 as amended) Schedule 1	600m north-west (22/03/2013)
Fieldfare <i>Turdus pilaris</i>	Wildlife and Countryside Act (1981 as amended) Schedule 1	Within 1km of the site (23/03/2018)
Redwing <i>Turdus iliacus</i>	Wildlife and Countryside Act (1981 as amended) Schedule 1	Within 1km of the site (09/10/2018)
Hobby <i>Falco subbuteo</i>	Wildlife and Countryside Act (1981 as amended) Schedule 1; Bern Convention (1979) Appendix 1	Within 1km of the site (16/05/2012)
Peregrine <i>Falco peregrinus</i>	Wildlife and Countryside Act (1981 as amended) Schedule 1; Birds Directive Annex 1; Bern Convention (1979) Appendix 1	Within 1km of the site (27/12/2018)
Red kite <i>Milvus milvus</i>	Wildlife and Countryside Act (1981 as amended) Schedule 1; Birds Directive Annex 1	Within 1km of the site (29/10/2018)
House sparrow <i>Passer domesticus</i>	NERC Act (2006) Section 41	Within 1km of the site (04/07/2018)
Hawfinch <i>Coccothraustes coccothra</i>	NERC Act (2006) Section 41	Within 1km of the site (05/03/2018)
Yellowhammer <i>Emberiza citrinella</i>	NERC Act (2006) Section 41	Within 1km of the site (12/07/2014)
Skylark <i>Alauda arvensis</i>	NERC Act (2006) Section 41	Within 1km of the site (27/07/2016)
Turtledove <i>Streptopelia turtur</i>	NERC Act (2006) Section 41	Within 1km of the site (18/05/2018)
Lapwing <i>Vanellus vanellus</i>	NERC Act (2006) Section 41	Within 1km of the site (03/05/2017)

Preliminary Ecological Appraisal

3.8 The site consisted of several farm buildings set within hardstanding and artificial unsealed surface. In the south of the site was a menage, which consisted of ruderal/ephemeral vegetation. Modified grassland was present in the south-west and east of the site. a single-storey lean-to was present to the north of the site. Broad habitat types identified within the site are detailed below.

3.9 Only species of note have been listed within this section, the full species list can be found within **Appendix 1: Species List**. The habitat map is presented in **Appendix 2**.

Buildings (u1b5)

3.10 Two farm buildings are present within the site (Appendix 2). Building 1 consists of cement blocks and timber boarding, with pitched corrugated metal roof. Building 2 consists of concrete pitched roof and no walls.

Bare ground (u510)

3.11 A dirt track surrounded the buildings onsite and led off to the south-east. Vegetation growing at the edges of this habitat included frequent common nettle, ragwort and spear thistle.

Developed land with ruderal edge (u1b6)

3.12 A concrete storage area was present in the north-west of the site, with ruderals growing at the edges of the space. Species included abundant spear thistle and common nettle.

Ruderal or ephemeral (u81)

3.13 The menage in the south of the site contained ruderal/ ephemeral vegetation. The area was dominated by moss, with frequent spear thistle.

Modified grassland (g4)

3.14 Parcels of modified grassland are present in the south-west and east of the site. These were dominated by perennial rye grass, with frequent creeping bent and white clover.

Protected Species

Bats Roosting

- 3.15 The farm buildings (Building 1 & 2) contained no potential roosting features, nor signs of bat, therefore were considered to have 'none' in terms of their potential to support roosting bats. No trees were present within the site.

Foraging and Commuting

- 3.16 The site was dominated by urban habitats unsuitable for foraging bats. The grass field in the east of the site and menage in the south could provide limited foraging opportunities as they contained limited vegetation. The buildings onsite provide linear features for commuting bats to cross the site. Whilst these features were limited in nature and extent, it is considered possible that bats would be recorded using these habitats. As such, the site is considered to have a some, albeit limited, suitability for foraging and commuting bats.

Badgers

- 3.17 No badger setts, latrines or holes were found within the site boundary at the time of the survey. The wider surroundings consist of grassland and farm buildings, which are considered somewhat suitable habitat for the species. Additionally, records of the species are recorded as close as 330m west of the site in 2015. The habitats on site were mainly unsuitable for badger species but no barriers for dispersal were identified and the menage in the south of the site could be considered suitable for foraging. As such, the site is considered to have potential to support commuting and foraging badgers.

Dormice

- 3.18 The site mostly comprised disturbed and managed habitats, unsuitable for dormice. The wider surroundings are considered unsuitable for dormice and no records show the species to be within the area. Therefore, it is considered that the potential for dormice utilising the site is negligible, and as such dormice will not be considered further in this report.

Great Crested Newts

- 3.19 There were seven ponds identified within 250m of the redline boundary, albeit none present on site.

- 3.20 A total of 5 ponds are located beyond Lower Titmore Green Road and Stevenage Road and located behind residential housing. Whilst these are not significant barriers to dispersal, these roads and housing areas, do fragment the landscape and reduce the potential movement of GCNs within the landscape.
- 3.21 The nearest pond, located to the north west of the site is approximately 90m from the red line boundary, with the pond located to the south west located over 150m from the redline boundary.
- 3.22 The site lies within the Natural England 'amber' risk zone for GCNs, as shown in Figure 10 below.

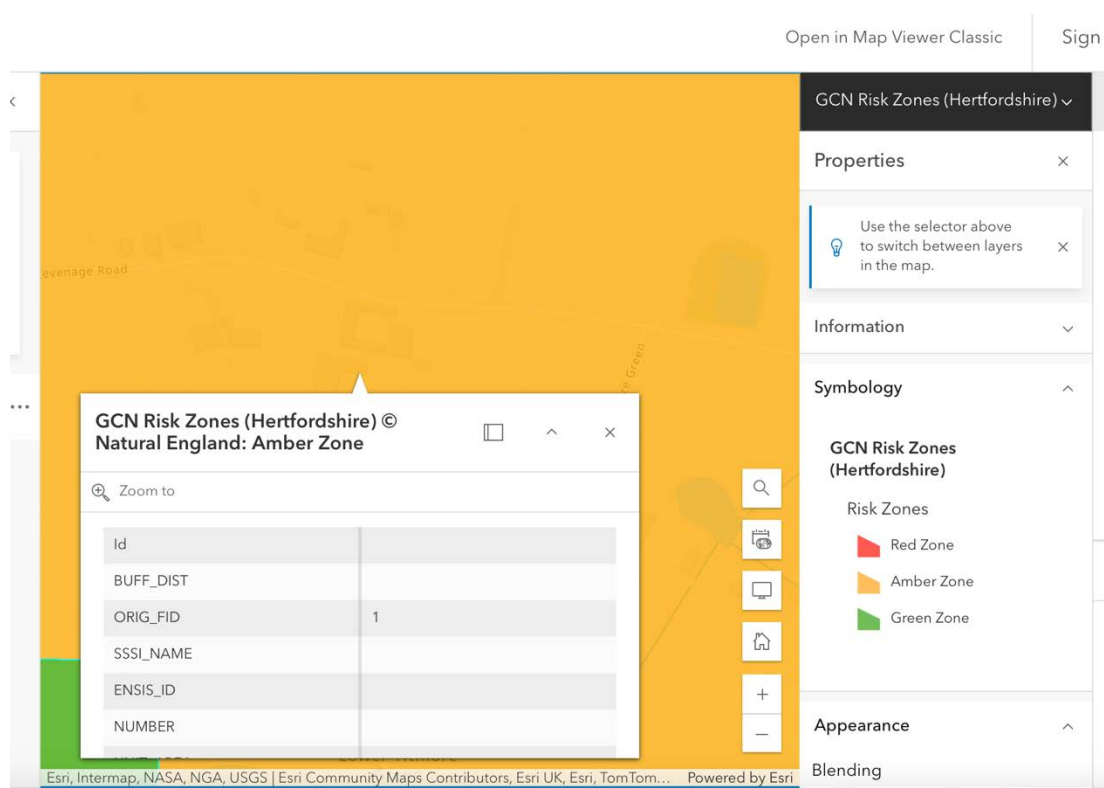


Figure 10: Sites location in relation to impact risk zone

- 3.23 The habitats onsite were predominantly urban and the vegetation within the menage and grassland were of short sward height and regularly disturbed. The habitats on site were considered to be of negligible value to GCNs. However, their presence in the landscape is considered likely.

Birds

- 3.24 No trees nor shrubs were present onsite. A bird nest was identified within the farm building (Building 1) as well as a suitable ledge for barn owl; however no evidence of

barn owl was recorded. The grassland onsite was unsuitable for ground nesting birds due to regular maintenance.

Reptiles

- 3.25 The site supports managed land of short sward height and hardstanding which does not provide suitable habitat for reptiles. The surrounding landscape comprised regularly managed grassland and urban habitats, unsuitable for reptile species. As such, it is considered that the site has negligible potential to support reptiles.

Other Species

- 3.26 Due to a lack of suitable habitat, the site was not considered suitable for other protected species, such as hedgehog, water voles and otters.

4.0 DISCUSSION

- 4.1 The following paragraphs consider the effects of the development on designated sites, priority habitats and protected and priority species. Where the desk study and Phase 1 survey provide sufficient evidence for an assessment of effects on any of these groups to be taken through planning, these are detailed below, the need for additional surveys and when and how these should be completed are summarised, if required.

Effects on Designated Sites

- 4.2 The site does not fall within or adjacent to any statutory sites. There are no internationally nor nationally designated statutory sites located within the search areas for the site or zone of influence.
- 4.3 There are four non-statutory designated sites within 1km of the site boundary; the closest, Wymondley Transforming Station LWS is situated approximately 660m west of the site boundary. It is considered the sites are at a significant distance from the development to not be considered affected by the proposed development. Furthermore, the proposed development does not result in the loss of functionally linked habitats nor does the proposals affect the ecologically functionality of the landscape.

Effects on Priority Habitats

- 4.4 There are no priority habitats located on or immediately adjacent to the site, as such no impacts on priority habitats have been anticipated from this proposed development.

Effects on Protected Species***Bat roosting potential***

- 4.5 The farm buildings (Building 1 & 2) contained no potential roosting features for bat species and no evidence of bats was identified onsite. Overall, these buildings were considered to have 'none' in terms of their suitability for roosting bats. Therefore, no further surveys are recommended on these buildings and these buildings are not considered to be constrained by roosting bats.

Foraging and commuting potential

- 4.6 The habitats on site are considered to provide limited foraging opportunities for bats in the local area. The wider surroundings consist of grassland and farm complexes, which also provide some suitable foraging habitat for common bat species. It is likely that a number of bats use the local landscape, foraging around the buildings, trees and boundary hedges close to the site.
- 4.7 According to Bat Conservation Trust guidelines, it is important that proportionality is employed when recommending further survey work for bat species on a proposed development site. As stated within section 2.2.19 of the latest survey guidelines (2023), the following points need to be taken into account with regard to planning bat surveys:
- Likelihood of bats being present;
 - Type of proposed activities;
 - Scale of proposed activities;
 - Size, nature and complexity of the site;
 - Species concerned;
 - Number of individuals.
- 4.8 Considering the above, the limited extent of habitats on site and the lack of linear or robust foraging features, no impacts upon the ecological functionality of the local landscape are expected by the proposed development. Considering the limited nature and extent of the proposals, no further surveys are recommended.

- 4.9 It is always recommended that a sensitive lighting scheme avoiding lighting on the edges of the site, is conditioned. Any proposed lighting scheme as part of the development will have to consider bats in the surrounding area as well as on site. All bat species are nocturnal, resting in dark conditions in the day and emerging at night to feed. Bats are known to be affected by light levels which can affect both their roosting behaviour as well as their foraging behaviour. This needs to be considered, with a sympathetic lighting scheme for the development. Recommendations include:
- Lighting should only be installed if there is a significant need;
 - Lighting should be avoided near trees and hedgerows, with light angled away from these areas, bats use linear features such as hedgerows to commute across the landscape to forage;
 - Lights should have focussed luminance on their target area, preventing light spill and pollution into other areas of the site and local area.
 - Dark buffer zones can be used as a good way to separate habitats or features from lighting by forming a dark perimeter around them. Buffer zones rely on ensuring light levels within a certain distance of a feature do not exceed certain defined limits; and
 - Light levels should be kept low. All luminaires should lack UV elements when manufactured and metal halide, fluorescent sources should not be used. LED luminaires should be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability.

Birds

- 4.10 The farm building (Building 1) had some suitability to support nesting bird species, and a bird nest was identified within the building during the survey. Additionally, a ledge was identified within the building that is suitable for breeding barn owl. Although no evidence of barn owl was identified, it is recommended that a nesting bird check by a suitably qualified ecologist is completed within 10 days of works beginning on this building. If active nests are identified for any bird species, works in the vicinity of the nest must cease until the birds have fledged the nest.

GCNS

- 4.11 There are no ponds within the red line boundary. The habitats within the redline boundary are dominated by buildings and hardstanding, with small areas of well managed grassland. These habitats are not considered to provide any suitable habitat

for GCNs. There is no breeding habitat on site, and the terrestrial habitats provide no cover or foraging habitat.

- 4.12 There are seven ponds within 250m of the redline boundary. However, a total of five of these ponds are located beyond the road and housing networks within the landscape, reducing the potential for movement of amphibians from the ponds to the site. Due to the number of ponds within the landscape and the presence of GCN records, the site lies within an 'amber' risk zone for GCNs.
- 4.13 The proposed development will not result in the loss of any suitable breeding ponds, or any ponds within the landscape. Nor will the development result in the loss of any ecological features linking off site ponds. Indeed, it is considered that the development will not impact upon the ecological functionality of the site or the local landscape.
- 4.14 The made up ground, hardstanding and buildings on site are considered to provide sub optimal / negligible habitat for GCNs, as GCNs are known to show a preference for woodland habitats, and made up ground and hardstanding does not provide the humidity and the niches that area associated with their terrestrial requirements. However, GCNs can cross such habitats and as such a precautionary method of works (reasonable avoidance measures RAMS) has been recommended.

RAMS for GCNs

- 4.15 Mitigation for GCN is as follows:
- Any potential refugia within development areas will need to be dismantled by hand or using sensitive machine work under close supervision of an ecologist.
 - Demolition areas should be checked prior to removal to ensure all potential refugia are sensitively removed.
- 4.16 During development work construction materials, as well as skips and pallets, should be stored on hardstanding where possible and furthermore, should be elevated off the ground. This is so that no features are created that GCN could potentially use as refuge habitat.
- 4.17 Where trenches and holes are dug, these should not be left open overnight. GCN (and other amphibians, reptiles and small mammals) may get trapped in vertical-sided trenches. Therefore, where there is a risk of this occurring, the holes should be refilled,

or planks of wood should be placed so that any trapped animals may use these to escape.

4.18 If a great crested newt is identified on site during works, then the following procedure must be followed;

- If a great crested newt is discovered at the site all works must cease immediately and Natural England and/or a great crested newt licenced ecologist must be contacted immediately to provide further advice.
- A licence might be required before works can recommence. If so, procedures will be followed to obtain a Natural England European Protected Species Mitigation Licence (EPSML) or the district level licence for the works.

4.19 It is considered that if these methods are used on site then it is considered that no individual GCN would be harmed as a result of the proposals.

Badgers

4.20 No evidence of badgers, such as setts or latrines, was observed in the site, however as a precaution, it is recommended that best practice construction measures are undertaken to avoid impacting badgers and other mammals such as hedgehog. The guidelines are as follows:

- Any trenches or excavations on site should be either covered over at night or a plank of wood placed in so as to allow any mammals to escape if the badgers were to accidentally fall in.
- Any open pipes or conduits laid should be blocked off each night to prevent badgers from entering them.
- Disturbances, such as loud noises, vibrations and flood lighting in association with night working should be minimised.

Other Species

4.21 No potential for any other species, such as dormice, reptiles, otters or water voles was identified within the site. It is considered that if during any works, a protected species is recorded, then all works must cease and advice from an ecologist sought.

Ecological Enhancements

4.22 A number of enhancements can be incorporated within the development scheme to help reduce potential ecological impacts to provide net gains to biodiversity in line

with NPPF (2023) and the proposed Environment Bill. It is important to utilise native species of local provenance in landscaping schemes to enhance the ecological value of a development.

4.23 Shrub and herb planting would provide opportunities for birds and hedgehogs. Native species of value should be used within the landscape scheme.

4.24 Amenity areas subject to regular maintenance can be planted up with Emorsgate Seeds ELI Flowering Lawn Mixture (or similar, dependent on availability) with slow growing grasses and a selection of wildflowers which respond well to regular short mowing:

- Common Bent (*Agrostis capillaris*);
- Crested dogtail (*Cynosurus cristatus*);
- Red fescue (*Festuca rubra*);
- Smaller Cat's-tail (*Phleum bertolonii*);
- Lady's bedstraw (*Galium verum*);
- Rough hawkbit (*Leontodon hispidus*);
- Oxeye daisy (*Leucanthemum vulgare*);
- Bird's-foot trefoil (*Lotus corniculatus*);
- Cowslip (*Primula veris*);
- Selfheal (*Prunella vulgaris*);
- Meadow buttercup (*Ranunculus acris*);
- Red clover (*Trifolium pratense*).

4.25 This would create higher value grassland within amenity spaces, supporting a range of invertebrates and their predators.

4.26 Additional bird nesting opportunity can be installed on site, and hardwearing woodcrete boxes, or similar, are recommended. The box should be positioned on a north or east facing aspect and at least 2m above the ground if possible. These would cater for species such as house sparrows and wagtails. A barn owl box is also recommended as the species are known to be within the area and the site is suitable for roosting. Figure 11 gives examples of suitable bird boxes, of which these or similar, could be installed onto the proposed buildings.



Figure 11: Examples of suitable bird boxes which could be installed on site –Vivara Pro Barcelona WoodStone Open Nest Box (left) and Barn Owl Nest Box (right)

- 4.27 To enhance the local bat population and provide roosting opportunities within the site, bat boxes can be integrated/ hung on proposed new buildings. Woodcrete boxes are recommended as they are breathable and long-lasting. These can include Schwegler boxes, such as the 1FR, 2FN and 1FD models, as well as suitable alternatives such as the CJ Wildlife Multi Chamber and the Vivaro Pro Low Profile Woodstone Bat Box range (Figure 12).



Figure 12: 1FR Schwegler Bat Tube left, Vivara Pro Low Profile right

5.0 Impact Assessment

- 5.1 This section of the report forms an EcIA (Ecological Impact Assessment) and is designed to quantify and evaluate the potential impacts of the development on habitats and species present on site, or within the local area.
- 5.2 The approach to this assessment accords with guidance presented within the CIEEM Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM 2018). In essence, an EcIA assesses the activities associated with a proposed scheme that are

likely to generate changes within identified zone of influence, on identified ecological features and receptors. The proposals are subsequently reviewed, and mitigation and compensation measures are outlined which help to reduce negative impacts.

- 5.3 Table 4 below summarises the impacts and required mitigation for each receptor as previously detailed in the discussion.

Table 4: Assessment of effects from the proposal after mitigation and compensation

Feature	Scale of Importance	Mitigation/Compensation Required	Residual Effect
Bat (roosting)	Local	Barn buildings considered to have no opportunities for roosting bats. No further surveys required	Not significant
Bats (commuting and foraging)	Local	Incorporation of a sensitive lighting scheme, native planting and installation of bat boxes to assist the local bat population.	Not significant
GCNs	Site	Habitats on site are of negligible value for GCNs, but site located in amber risk zone. Sensitive measures of working recommended	Not significant
Nesting Birds	Site	Mitigating direct harm to nests by a nesting bird check by a suitably qualified ecologist within 10 days of works commencing on Building 1, making sure to check the suitable ledge for signs of barn owl. Mitigation/Enhancement in the form of the installation of bird boxes.	Not significant
Badgers	Local	Precautionary method of works to be followed during construction phase of the development to ensure commuting and foraging badgers are protected.	Not significant
Other species	Site	No protected species considered likely to be present on site	Not significant

Cumulative Impacts

- 5.4 The scheme should also be considered in conjunction with other surrounding proposals in order to determine cumulative impacts on ecological features. There are no other planning permissions within the surrounding area. Given the scale of the proposed development, no significant adverse cumulative impacts are anticipated.

6.0 Conclusions

- 6.1 The site comprised two farm buildings, hardstanding, bare ground, grassland and a ruderal/ ephemeral menage. A lean-to was situated north of the site. The habitats present on site were common and widespread and their loss is not considered to have a significant ecological impact.
- 6.2 No international and statutory sites are within the search area for this site and as such, no impacts, direct or otherwise, are considered likely on the integrity of these designations.
- 6.3 There are four non-statutory sites within a 1km radius of the site boundary that are not considered to be significantly impacted by the development owing to the distance and scale of the development.
- 6.4 A few lifted hanging tiles were noted on the roof of the lean-to (Building 3) to the north of the site which was considered to have 'low' potential for roosting bats. Due to this, it is recommended that one bat emergence survey is completed during the optimal bat survey season.
- 6.5 There is low potential for bats utilising the site for foraging and commuting purposes. Native planting and sensitive lighting are recommended to enhance the sites potential to support bats within the local area.
- 6.6 A bird nest was identified within Building 1 as well as a suitable ledge for breeding barn owl. A nesting bird check will be undertaken by a suitably qualified ecologist within 10 days of works on this building.
- 6.7 A precautionary method of works is recommended during the construction phase of the development to ensure no harm to badger species and GCNs.
- 6.8 The site did not have potential to support other protected species such as hazel dormouse, reptiles, otters, or water voles.

7.0 REFERENCES

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Internet resources:

Google Maps: www.google.co.uk/maps

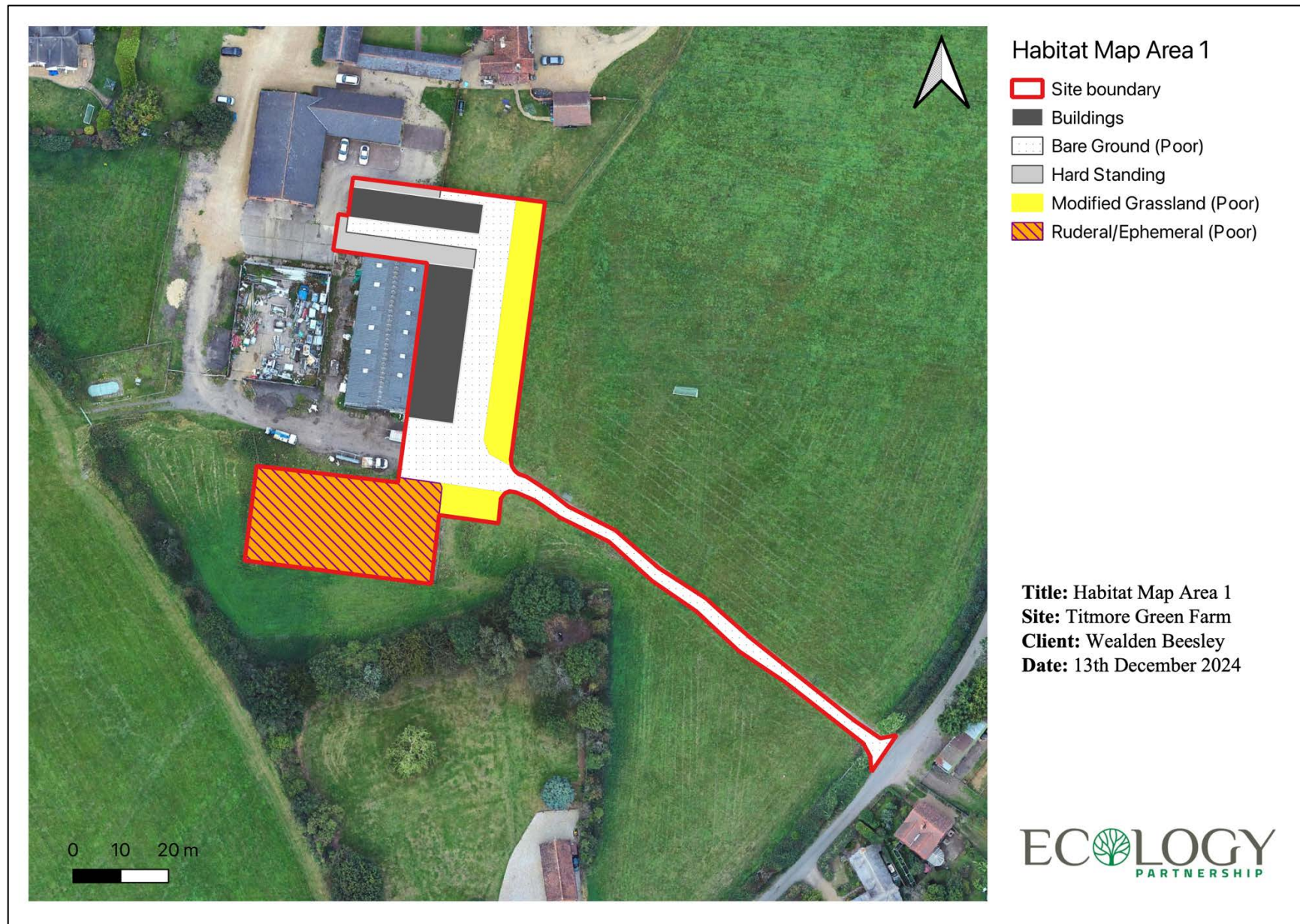
Magic Interactive Map: www.magic.gov.uk

<https://www.north-herts.gov.uk>

Appendix 1: Species List

Common name	Latin name	DAFOR score
Hardstanding		
Perennial rye grass	<i>Lolium perenne</i>	D
Common nettle	<i>Urtica dioica</i>	A
Dandelion	<i>Taraxacum</i>	O
Mouse-ear chickweed	<i>Cerastium fontanum</i>	O
Yorkshire fog	<i>Holcus lanatus</i>	O
Cleavers	<i>Galium aparine</i>	R
Thistle sp	<i>Cirsium</i>	O
Doves foot cranesbill	<i>Geranium molle</i>	R
Ragwort	<i>Jacobaea vulgaris</i>	F
Greater stitchwort	<i>Stellaria holostea</i>	O
Curled dock	<i>Rumex crispus</i>	R
Willowherb	<i>Epilobium</i>	R
Bramble	<i>Rubus fruticosus</i>	R
Field speedwell	<i>Veronica agrestis</i>	R
Ruderal / ephemeral		
Creeping bent	<i>Agrostis stolonifera</i>	O
Yorkshire fog	<i>Holcus lanatus</i>	O
Spear thistle	<i>Cirsium vulgare</i>	F
Cats ear	<i>Hypochaeris radicata</i>	R
Cleavers	<i>Galium aparine</i>	R
Doves foot cranesbill	<i>Geranium molle</i>	R
Common nettle	<i>Urtica dioica</i>	O
Greater stitchwort	<i>Stellaria holostea</i>	R
Mouse ear chickweed	<i>Cerastium fontanum</i>	R
Ragwort	<i>Jacobaea vulgaris</i>	O
Modified grassland		
Perennial rye grass	<i>Lolium perenne</i>	D
Spear thistle	<i>Cirsium vulgare</i>	F
White clover	<i>Trifolium repens</i>	O
Mouse ear chickweed	<i>Cerastium fontanum</i>	R
Creeping bent	<i>Agrostis stolonifera</i>	F
Yorkshire fog	<i>Holcus lanatus</i>	O
Red fescue	<i>Festuca rubra</i>	F
Creeping thistle	<i>Cirsium arvense</i>	O
Geranium sp	<i>Geranium sp</i>	R
Cut leaved cranes bill	<i>Geranium dissectum</i>	R
Doves foot cranes bill	<i>Geranium molle</i>	R
Dandelion	<i>Taraxacum</i>	O

Appendix 2: Habitat Map





Appendix 3: Site Photographs

Photograph 1: External of Building 1.	
Photograph 2: Internal of Building 1	
Photograph 3: Hardstanding storage area in the west of the site.	

Photograph 4: Building 2 in the north of the site.



Photograph 5: Grassland in the east of the site.



Appendix 4: Biological Records Confirmation



Data Search Results 21/03/2024**HERC Ref: 202403_043**

RAMSAR

Ramsar sites are designated under the Convention on Wetlands of International Importance especially as Waterfowl Habitat. Wetlands are designated, protected and promoted in order to stem the progressive encroachment on and loss of wetlands, which are broadly defined to include marsh, fen, peatland and water.

Special Areas of Conservation (SAC)

Special Areas of Conservation are sites designated by Member States under the EC Habitats Directive. The aim is to establish a European network of important high quality conservation sites that will make a significant contribution to conserving habitats and species considered to be most in need of conservation at a European level.

Special Protection Areas (SPA)

Special Protection Areas are designated under the EC Birds Directive, to conserve the habitat of certain rare or vulnerable birds and regularly occurring migratory birds. Any significant pollution or disturbance to or deterioration of these sites has to be avoided.

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