Stables adjacent Weston House Cottage

Preliminary Ecological Appraisal and Ecological Assessment Report

Connected ECOLOGY

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Contents

1. Introduction

1.1 Background

Connected Ecology has been commissioned by John Putman Architects to undertake a Preliminary Ecological Appraisal (PEA) and ecological assessment in support of the conversion of stables into an residential dwelling (Appendix A: Drawings). The proposed conversion of the stables and associated works will hereinafter be referred to as the proposed Scheme.

The proposed Scheme is located within the grounds of Weston House Cottage, St. Cross Road, Mendham, Harleston, Suffolk, IP20 0PB, and centres on Ordnance Survey Grid Reference TM 29347 82415 (Appendix B: Figure 1. PEA overview).

The stables will be converted into a residential dwelling. Associated works include improved parking area, bin presentation area, sewage drainage and landscaping (see drawings 2302.1-6, dated 7th July 2023). The proposed Scheme will benefit from the existing access point off St. Cross Road but will involve the thinning or realignment of 50m of hedgerow to improve the visibility splay.

On 13th May 2023, a walkover survey was undertaken of the proposed development site and the wider area to observe, assess, and record any ecological features present or potentially present that could be affected by the proposed Scheme.

There will be 50m of hedgerow affected by the proposed Scheme, which is a habitat of principal importance. There will be no loss of hedgerow as a result of the improved visibility splay. Additionally, there will be the planting up of 24m of native species-rich hedgerow elsewhere on site, including over one of the existing access points to the property. Once established, this will provide additional benefits to wildlife through increased foraging resources, nesting sites and improved connectivity of habitats.

There will be a permanent/temporary loss of 100m^2 of low ecological value grassland to facilitate the works. The exact amount of permanently lost grassland will depend on the landscaping scheme and whether the hedgerow needs to be realigned. The thinning or realignment of the hedgerow for the visibility splay will increase the width of the road verge, which is recommended to be planted with a species rich wildflower and grass seed mix. This will provide an additional 62m^2 of species-rich road verge.

The survey recorded a single old pipistrelle dropping within the stable. It is considered that there is a low chance of bats roosting in the stable and that it would be limited to a low number of bats who may choose to opportunistically use it in the future. A pre-works checks for bats ahead of any construction works is required. If roosting bats are recorded, then works will have to be carried out under a European Protected Species (EPS) Licence or a Low Impact Class Licence (LICL).

In addition, the survey recorded several species of birds using the stable and the lean to. Three bird boxes will be installed to mitigate the impact of the proposed Scheme. Once the new hedgerow has established, there will be an increase in nesting opportunities and foraging resource for birds.

The walkover survey also recorded evidence of suitable habitats for amphibians, hedgehog, and reptiles within or immediately adjacent to the proposed Scheme. It is recommended to store the construction materials off the ground on pallets and waste materials in skips.

Provided that the recommendations are fulfilled, it is considered there will be no net loss in conservation as a result of the proposed Scheme.

1.2 Objectives

The objectives of the PEA are these:

- Identify the likely ecological constraints associated with the proposed Scheme; and
- Identify any mitigation measures required, following the mitigation hierarchy; and
- Identify any additional surveys required to inform an Ecological Impact Assessment (EcIA); and
- Identify the opportunities offered by the project to deliver ecological enhancement.

2. Methodology

2.1 Zone of influence

The Zone of influence (ZoI) is defined by the CIEEM Guidelines for Ecological Impact Assessment[1] as: "area(s) over which ecological features may be affected by the biophysical changes caused by the proposed project and associated activities." The ZoI of the proposed activities may be different from the boundary of the proposed Scheme.

2.2 Desk Study

Initial scoping was carried out to assess buildings and habitats present and their potential to support species of conservation importance within the ZoI, and to identify likely impacts the proposed Scheme would have on them. The exercise was conducted using a combination of aerial imagery, Ordnance Survey (OS) maps and Geographical Information Systems (GIS) to identify suitable features.

The purpose of a desktop study is to identify any statutory designated sites within 2km of the proposed Scheme, using Defra Magic Map Application[2].

A review of the Defra Magic Map Application was also completed to identify any other previously issued Natural England European Protected Species (EPS) Licences and priority habitats within 2km of the proposed Scheme.

2.3 Surveyor's Experience

Lee Rudd is a principal ecologist with over 14 years of ecology consultancy experience. He is a full member of the Chartered Institute of Ecology and Environmental Management (MCIEEM) and a full member of the Association of Environmental & Ecological Clerk of Works (MEECW). Lee holds Natural England licences for bats (2022-61787-SCI-SCI), great crested newt (2021-53591-CLS-CLS) and water vole (CL31/2017/00017). He has also been an accredited agent on various development licences for great crested newt, water vole and badger.

2.4 Field Surveys

On 13th May 2023, Lee Rudd carried out a walkover survey of the proposed Scheme to observe, assess and record any habitats or species of conservation importance within the ZoI and to identify likely impacts the proposed Scheme would have on them. The results are set out in the Preliminary Ecological Appraisal (PEA) in accordance with the latest professional guidance published by the Chartered Institute of Ecological and Environmental Management (CIEEM)[3]. Habitats on site were recorded in line with the UK habitat classification system[4]. Habitats and species recorded or species potentially present on site were checked against the list of priority habitats and species under the NERC Act 2006[5].

The walkover also looked to observe, assess and record any habitats suitable for bats to roost, commute, and forage on site and in the surrounding area (i.e., ZoI). Connectivity of habitats and how the proposed Scheme would affect them was also recorded. The appraisal for bats was carried out following the latest professional guidance.

[1] CIEEM Guidelines for Ecological Impact Assessment in the UK and Ireland. https://cieem.net/resource/guidelines-for-ecological-impact-assessment-ecia/ (*accessed on 28th May 2023*).
[2] Defra Magic Map Application: https://magic.defra.gov.uk/MagicMap.aspx (*accessed on 28th May 2023*).
[3] CIEEM Guidelines for Preliminary Ecological Appraisal in the UK and Ireland. Guidelines-for-Preliminary-Ecological-Appraisal-Jan2018-typo-edit.pdf (cieem.net) (*accessed on 28th May 2023*).
[4] UK Habitat Classification System. ukhab – UK Habitat Classification (*accessed on 28th May 2023*).
[5] NERC Act 2006 Habitats and Species of principal importance in England. Habitats and species of principal importance in England - GOV.UK (www.gov.uk) (*accessed on 28th May 2023*).

2.5 Survey Timing

The walkover survey took place on 13th May 2023. The weather conditions were 10 °C, no precipitation with sunny intervals and windy conditions of approximately 10 mph. There had been light rain within the previous 5 days.

2.6 Deviations, Constraints and Limitations

There are no deviations, constraints or limitations recorded within this PEA. The walkover was carried out in line with the latest professional guidance. There was full access to the building and wider site, which allowed data gathering as per survey guidance.

3. Results

3.1 Local Context

The survey covered the stables (building 1) and the adjoining lean to which is open fronted (building 2) (Appendix A: Drawings). The walkover survey extended beyond the stable within the boundary of the land ownership and immediately adjoining land (see Figure 1 & 2).

The proposed Scheme currently has two access points from St. Cross Road – a single-lane country road that is lined by hedgerow. A small number of residential and farm properties are in the near vicinity set within an agricultural setting with occasional blocks of woodland.

3.2 Desktop Survey Results

3.2.1 Protected Sites

There are no statutory designated sites of ecological interest within 2km of the proposed Scheme.

Therefore, the proposed Scheme will not influence any designated sites, and will not be considered any further within this report.

3.2.2 Habitats

There are no priority habitats identified on Magic Map within the extent of the PEA walkover or immediately adjacent to the walkover.

3.2.3 Species

There are no case references for any European Protected Species (EPS) Licences within 2km of the proposed Scheme within the past 10 years.

There are no great crested newt (GCN) survey returns within 2km of the proposed Scheme. There are no case results for GCN from the Natural England Pond Surveys 2017-2019 initiative.

The site falls within the green risk zone[6] for the likely presence of great crested newt (GCN, *Triturus cristatus*), which is classified as "containing fewer areas with GCN".

3.3 Field Results

Figure 2 outlines the habitats that were recorded during the walkover on 13th May 2023, while photographs are provided within Appendix C.

Habitats

Habitats are presented within Figure 2: PEA habitats. The primary and secondary habitats recorded are presented below along with their UK Habitat Classification code[4].

3.3.1 Buildings (u1b5)

The proposed Scheme involves the conversion of the stables into a single storey dwelling and is referenced on the PEA walkover as Building 1 (ref B1).

The stable is a single-storey timber-framed building with a pitched roof. The roof consists of corrugated metal, water proof membrane and OSB board. The walls themselves are externally timber cladded with plyboard on the lower half of the building. It is not insulated and provides a cavity. The timber

[6] Great crested newts risk zones Norfolk and Suffolk. ArcGIS - My Map (*accessed on 29th May 2023*).

construction itself sits on a single line of brick on a concrete base. There are four units that make up building 1, as identified within Figure 2.

In addition to the stable that makes up the proposed Scheme, there are two other buildings, which include the adjoining lean to which is used for storing logs (Building 2, ref B2) and the third is a summer house (Building 3, ref B3). Building 2 is of simple construction consisting of a timber frame with timber cladding. It has a corrugated metal roof which sits on OSB board. There is water ingress through the roof. It is also open fronted. The lean to will be removed as part of the proposed Scheme.

Building 3 is of timber construction and serves as a summer house and gym and does not form part of the proposed Scheme, and as such will not be affected by the works.

3.3.2 Other developed land (u1b6)

There are significant areas of land laid to compacted gravel and concrete, which front the stables, lean to, driveways, parking areas and pathways.

Adjacent to the northeast vehicular access point off St. Cross Road is a compacted gravel trackway, which is a shared access point with the neighbouring property (TN1).

3.3.3 Built linear features (u1e)

Most of the boundaries on site are formed by hedgerow, with internal post and rail fencing around the paddock area (grassland area 3, ref G3). The fence is approx. 1.2m in height.

There are two access points on site, which are gated entrances. One serves the front of the stables and the second provides access from the north.

3.3.4 Modified grassland (g4)

There are three areas of grassland of low ecological value. Grassland area 1 (ref G1) is positioned to the north and is starting to encroach on the compacted gravel area. It is generally unmanaged (>10cm). There are areas of bare earth and longer vegetation along the bases of hedgerow. It supports a few chicken. The grassland is dominated by annual meadow grass (*Poa annua*) and broom (*Cytisus sp.)* and includes broadleaf species; common nettle (*Urtica dioica*), red dead nettle (*Lamium purpureum*), broadleaf plantain (*Plantago major*), common chickweed (*Stellaria media*), dandelion (*Taraxacum officinale*), common mallow (*Malva sylvestris*), white clover (*Trifolium repens*), broadleaf dock (*Rumex obtusifolius*) and curled dock (*Rumex crispus*).

To the south is another area of grassland (ref G2) and this serves as a paddock for two horses. It is typically short ward (<10cm) and has an area of bare earth. There are some longer areas of vegetation along the boundary fence line. The grassland is dominated by annual meadow grass (*Poa annua*), Yorkshire fog (*Holcus lanatus*) and broom (*Cytisus sp.)* and includes broadleaf species; red dead nettle (*Lamium purpureum*), white dead nettle (*Lamium album*), woolly hedge nettle (*Stachys byzantina*), cleavers (*Galium aparine*), common chickweed (*Stellaria media*), dandelion (*Taraxacum officinale*), ragwort (*Jacobaea vulgaris*), sun spurge (*Euphorbia helioscopia*), pineapple weed (*Matricaria discoidea),* broadleaf dock (*Rumex obtusifolius*) and curled dock (*Rumex crispus*).

There is a further area of grassland (ref G3) to the north of the access point. It is a relatively small area and functionally is a wide verge (circa 4m from top bank of watercourse, ref WC1). The sward height is approximately 15cm and species composition is like that of grassland area 1.

None of the grassland areas are considered habitats of Principal Importance under Section 41 of the NERC Act 2006.

3.3.5 Road verge (431)

There is a verge to the east and west of St. Cross Road. To the east alongside the boundary of the proposed Scheme it is approximately 1m in width. This sits at the base of hedgerow 1 and 3. Grasses

consist of cock's foot (*Dactylis glomera*), annual meadow grass and yorkshire fog with broadleaf species including ground ivy (*Glechoma hederacea*), red dead nettle, dandelion, geranium sp, cow parsley (*Anthriscus sylvestris*), common chickweed, spear thistle (*Cirsium vulgare*) and hedge garlic (*Alliaria petiolata*). The verge at the base of hedgerow 3, also includes common mallow, common nettle and white dead nettle.

The verge on the western side of St. Cross Road is dominated by broom grass.

There will be no verge lost as a result of the proposed Scheme, as the proposal benefits from an existing point of access.

3.3.6 Arable cereal crops (c1c)

Arable cropland is dominated in the landscape and forms the immediate western boundary of the proposed Scheme.

3.3.7 Arable field margins (c1a)

The arable field margin along the western boundary of the proposed Scheme and base of hedgerow 2 is very similar in composition to the eastern roadside verge, but also includes creeping buttercup (*Ranunculus repens*).

3.3.8 Scattered trees (secondary code 11)

There are no trees within the are area of the proposed Scheme, therefore no trees will be lost as part of the works.

However, two trees of note were identified within the walkover, along with other scattered trees on the adjacent side of the road.

A single common ash (*Fraxinus excelsior*, ref T1) is present on the northern bank of the watercourse by the northern access point. It is in generally good health, albeit with flaking and lifted bark and rot holes. It is positioned approximately 12m from the northern access point.

A further tree is present by the side of building 3. It is a weeping willow (*Salix babylonica, T2*) that has been reduced. It has no signs of holes or lifting bark. It is approximately 25m to the south of the stable.

There are ash trees and oak trees (*Quercus robur*) along the driveway to the neighbouring property (TN1).

3.3.9 Scattered scrub (secondary code 10)

A small hawthorn bush is present along the eastern boundary alongside the post and rail fence.

3.3.10 Hedgerows (priority h2a)

Along the eastern boundary of the proposed Scheme on St. Cross Road there is a managed hedgerow (ref H1 & H3). Hedgerow 1 is approximately 35m in length and is positioned between the two access points. It is formed by field maple (*Acer campestre*), hazel (*Corylus avellana*), hawthorn (*Crataegus monogyna*) and bramble (*Rubus fruticosus*). Hedgerow 3 is positioned to the south of the stables access point and is approximately 45m in length. The woody species composition is the same as per hedgerow 1 with the addition of honey suckle (*Lonicera periclymenum*), dogwood (*Cornus sanguinea)* and common ivy (*Hedera helix*).

Along the western boundary of the proposed Scheme there is approximately 25m length of hedgerow (ref H2) between the northern access point and building 2. This managed hedgerow includes hornbeam (*Carpinus betulus*), field maple and hawthorn.

To the north of the proposed Scheme, alongside the northern bankside of watercourse 1 is a hedgerow (ref H4). This is formed by field maple, hawthorn, blackthorn (*Prunus spinosa*), dogrose (*Rosa canina*) and bramble.

It is considered that these hedgerows are habitats of Principal Importance under Section 41 of the NERC Act 2006.

The proposed Scheme includes the planting up of hedgerow across the front of the existing access point for the stables (circa 6m) and along the western boundary of grassland area 2 (18m).

3.3.11 Freshwater – man-made (r1 secondary code 39)

There are no ponds and two watercourses that were identified on site (see Figure 2). No watercourses will be impacted by the proposed Scheme.

Watercourse 1 (ref WC1) measures 12m from top bank of watercourse to the northern access point. The watercourse measures 4m wide from top of bank to top of bank, 1.5m in depth with a water depth of circa 10cm. The bankside is earth in construction and is suitable for burrowing animals. It is vegetated with broom grass, greater willowherb (*Epilobium angustifolium*), cow parsley, common nettle, bristly oxtongue (*Helminthotheca echioides*) and ragwort.

There is a second watercourse (ref WC2) to the north alongside St. Cross Road, which is connected to watercourse 1 with a culverted crossing. This only just falls within the PEA boundary of the walkover.

3.3.12 Amphibians including great crested newt

There were no ponds identified during the PEA walkover and none identified during the desktop study within 250m of the proposed Scheme.

The site falls within the green risk zone[6] for the likely presence of great crested newt (GCN, *Triturus cristatus*), which is classified as "containing fewer areas with GCN". There are also no records of GCN within 2km of the proposed Scheme.

It is considered that the risk of GCN being found on site is negligible and therefore highly unlikely that the proposed Scheme would affect them.

However, there was suitable terrestrial habitat identified during the walkover that could support amphibians including GCN and common toad (*Bufo bufo*). These areas were mainly alongside the established hedgerows and road verges.

GCN and common toad are Species of Principal Importance under Section 41 of the NERC Act 2006.

Therefore, works within the proposed Scheme pose a risk of potential harm to amphibians on site that could be killed, injured or disturbed if no mitigation measures were in place prior to works. Recommendations are provided in Section 4 to manage the risks of causing harm.

3.3.13 Bats

Any works within 10m of roosting features or confirmed bat roosts could cause loss of a roost and/or disturbance to bats.

An assessment of Building 1 and building 2 was undertaken. It is considered that building 1 has low suitability for bats on account of limited features for roosting bats. The suitability of the building to support roosting bats was limited to the large open void between the soffit and roof, which was fully explored.

A single pipistrelle dropping was identified within building 1, unit B1d (TN3). It was old and crumbling upon touch.

There was no evidence of bats recorded within building 2 and no features suitable to support bats.

There were no trees with suitable roosting features within 10m of the proposed Scheme.

The buildings are set within good quality habitat that is well connected with the wider landscape. The site provides high suitability for commuting and foraging bats on account of the bordering hedgerows.

Most bat species found in the UK are Species of Principal Importance under Section 41 of the NERC Act 2006. This includes soprano pipistrelle (*Pipistrellus pygmaeus*).

It is considered that there is a low chance of bats roosting in Building 1 and that it would be limited to a low number of bats who may choose to opportunistically use it in the future. It is considered that a proportionate approach should be taken to ensure that bats are not affected by the proposed Scheme. This should include a pre-works check for bats ahead of any construction works. If roosting bats are recorded, then works will have to be carried out under a European Protected Species (EPS) Licence or a Low Impact Class Licence (LICL).

3.3.14 Birds

There is suitable habitat for breeding birds within or immediately adjacent to the proposed Scheme in the form of grassland, hedgerows, trees and buildings.

Swallow (*Hirundo rustica*), blue tit (*Cyanistes caeruleus*) and wood pigeon (*Columba palumbus*) were identified during the PEA walkover.

A total of three swallows were recorded entering building 1. Two of which were carrying bedding material. Three swallow nests were recorded within the rafters of building 1, B1d.

A blue tit was seen entering a small rot hole in the external cladding at the rear of building 1, B1c. It is likely nesting in the void between the timber cladding and plyboard.

An old nest, likely of wood pigeon was recorded in building 1, B1a. It was on top of some stored timber in the rafters.

A further nest was also recorded under the roof of building 2. It is likely of robin (*Erithacus rubecula*).

No evidence of barn owl (*Tyto alba*) or any active nests was recorded on site that day.

The proposed Scheme will also involve the modification and loss of suitable nesting sites for birds within building 1 and 2. There will also be a lost of nesting sites within hedgerows (ref H1 & H3) due to either hedge thinning or the need to have the hedgerow realigned to provide visibility splays to create a 2m wide verge. The length of affected hedgerow will be approximately 50m (affected hedgerow 1= 35m and hedgerow 3= 15m).

Additional, vegetation clearance or significant disturbance to facilitate the works, which will result in the loss of grassland across all three areas (ref G1-G3). The total area affected will be approximately 100m^2.

Therefore, this is a risk of causing disturbance or destruction of a nest and a loss of foraging resources. Recommendations on how to mitigate the risks posed to bird nests on site are provided in Section 4 of this report.

3.3.15 Reptiles

There are suitable areas of habitat on site for reptiles, which include the areas of grassland with cover that are primarily to the north within the less intensively managed grassland, base of hedgerows and along the arable margins and grass verges. The site may support the occasional grass snake (*Natrix helvetica*) but is unlikely to support any of the other common species, including adder *(Viper berus*), common lizard (*Zootoca vivipara*) or slow-worm (*Anguis fragilis*).

All species of reptiles are listed as Species of Principal Importance under section 41 of the NERC Act 2006.

Considerations on the storage of materials for works are outlined as recommendations in Section 4 and will be required to ensure that reptiles are not affected.

The habitats on site are not suitable for either of the rarer reptiles, which include sand lizard (*Lacerta agilis*) and smooth snake (*Coronella austriaca*). Therefore, no further surveys or a mitigation strategy is recommended as part of the proposed Scheme.

3.3.16 Other mammals - priority species

There is suitable habitat on site for hedgehog (*Erinaceus europaeus*), within log piles (TN2) and at the base of hedgerows. They could also inhabit within and under building materials if stored directly on the ground.

Considerations are required for any hedgerow removal and material storage and are outlined as recommendations in Section 4.

Hedgehog is a Species of Principal Importance under Section 41 of the NERC Act 2006.

Whilst suitable habitat for badgers (*Meles meles*) was identified during the walkover, there was no evidence recorded on site or directly adjacent to it on the day of the survey. It is also considered that the suitability of habitats within the proposed Scheme is not suitable for badger. Therefore, badger is not considered any further within this report.

No evidence of water vole (*Arvicola amphibius*) was recorded on site following a detailed search of the watercourses. However, water vole could be present within the watercourses as they provide suitable habitat, albeit sub-optimal. There are no proposed ground breaking works within 5m from the top bank of any watercourse. Therefore, water vole would not be impacted by the proposed Scheme and are not considered any further within this report.

3.3.17 Other

The habitats on site were not suitable for otter (*Lutra lutra*) or white-clawed crayfish (*Austropotamobius pallipes*) at that time. Therefore, no further surveys or need for mitigation is detailed within this report.

There was evidence of mice (*Mus musculus*) in the form of droppings within building 1, unit B1d.

4. Discussions and Recommendations

4.1.1 Habitats

The proposed Scheme and associated works will involve the thinning or realignment of 50m of hedgerow (ref H1 & H3) to facilitate the visibility splay. The proposal also includes the planting up of 24m of hedgerow, which will result in an overall increased amount of hedgerow and an improved connectivity for wildlife.

The planting of the hedgerow should be of a native species-rich type (≥5 species). These should include similar species to those already present (ref H1-H4) and could also include species that provide flowers and berries for insects and birds, i.e. elder, guelder rose (*Viburnum opulus*), cherries (*Prunus avium* or *P. padus*) and cherry plum trees (*Prunus cerasifera*).

Therefore, there will be a net gain of hedgerow as a result of the proposed Scheme.

There will be a temporary loss and or/disturbance of grassland which will amount to 100m^2. The area of grassland is of low ecological value. The road verge will be widened to 2m to facilitate the visibility splay following the hedge works. Along with this, the removal of the access point in front of the stables will provide a further 6m length of road verge. There will be 62m^2 additional road verge as a result of the proposed Scheme. The newly created road verge is recommended to be planted up with a species-rich wildflower and grass seed mix, which provides an opportunity to improve this habitat for pollinators and other wildlife. An appropriate seed mix would be the road verge wildflower and grass seed mix provided by Habitat Aid[7]. The provision of additional road verge, with a species-rich grass seed mix will compensate any temporary and/or permanent loss in grassland area.

There will be no loss of habitats that are of Principal Importance under Section 41 of the NERC Act 2006.

4.1.2 Reptiles and Amphibians

There is suitable habitat for grass snake and terrestrial amphibians, which will require consideration before any works take place as they could cause injury or death.

Presence of suitable habitats on site suggests that reptiles and amphibians could be present within the footprint of the proposed Scheme or immediately adjacent to it.

Therefore, a precautionary approach will be undertaken, which includes phased vegetation cutting, i.e., an initial check for wildlife by a competent person before the first cut going down to 15cm, and a second check for wildlife ahead of a final cut to ground level. At least 48 hours should be allowed between vegetation clearance and the commencement of ground-breaking works for any reptiles or amphibians to disperse. Otherwise, if within 48 hours, following vegetation clearance, carry out destructive searches under the supervision of a suitably qualified ecologist.

It is planned to store materials for works on areas of compacted gravel/concrete.

If materials are temporarily stored on any adjacent areas of grassland, those areas must be maintained below 10cm sward height, to reduce their suitability for reptiles and/or amphibians. Where vegetation is above 15cm, the above approach should be undertaken.

Construction materials will have to be stored off the ground on pallets and waste materials in skips.

4.1.3 Bats

A single old pipistrelle dropping was recorded within the stable (Building 1, ref B1d, Target Note 3). Suitable roosting features within the stables included the large open void between the soffit and the

[7] Habitat Aid. https://www.habitataid.co.uk/products/road-verge-wildflower-seed-mix (*Accessed on 29th May 2023*).

roof. No other evidence of bats was recorded. It is considered that there is a low chance of bats roosting in the stable and that it would be limited to a low number of bats who may choose to opportunistically use it in the future. A pre-works checks for bats ahead of any construction works is required. If roosting bats are recorded, then works will have to be carried out under a European Protected Species (EPS) Licence or a Low Impact Class Licence (LICL).

No other suitable roosting features was recorded either within the building or within any buildings or trees within 10m of the proposed Scheme.

The building is set within good quality habitat that is well connected with the wider landscape. The site provides high suitability for commuting and foraging bats on account of the hedgerows, ponds and trees identified during the walkover.

Consideration over foraging and commuting bats in the local vicinity needs to be made. Light pollution can significantly affect the way bats use the space. All lighting should be installed in accordance with Bats and Lighting in the UK, Bats and the Built Environment Series[8]. Temporary lighting associated with construction works should be sensitively designed. Lighting should be of the lowest luminosity necessary for safe delivery of works and on-site security. It should be designed, positioned, and directed to reduce the intrusion into adjacent habitats. The same approach should be incorporated into the design of any lighting as part of the proposed Scheme. As a minimum, any external security lighting should be set on motion-sensors and short (1min) timers. The inclusion of baffles, hoods or louvres should be used to reduce light spill and direct it only to where it is needed.

4.1.4 Birds

Without mitigation, a nest could be disturbed or destroyed due to works. Vegetation clearance including hedgerow thinning or removal should be undertaken outside of the main bird nesting season, which is March - August inclusive, where possible.

If clearance works are undertaken during the nesting period, a check by a competent person will be required to undertake a nesting bird check in advance of hedgerow thinning/removal and grassland removal. If an active nest is recorded, then works must cease within 5m of the nest, until the young have fledged.

It is advised to remove any cut vegetation from the area of proposed works as this could provide suitable nesting bird habitat, as well as suitable habitat for other species, including hedgehog. The recommendation is to either chip the woody material or cut it to manageable lengths and create habitat piles in the wider site where animals will not be disturbed.

In addition to vegetation clearance, the modification of the stable and loss of lean to building could also cause a nest to be disturbed or destroyed during the works. As per above, if works are carried out during the nesting period, a check by a competent person will be required ahead of the start any works. If possible, the stable should be cleared of materials and all access features blocked outside of nesting season to reduce the risk of birds entering.

The installation of three bird boxes would compensate for the loss of suitable nesting habitat. Boxes should be installed 1–3m from the ground in a sheltered position away from prevailing wind, rain and strong sunlight (avoid south facing). Make sure cats cannot enter the box.

4.1.5 Hedgehog

Hedgehog is likely to be present on site and within proximity to the proposed works. Without care, potential harm could come to these animals.

A check at the base of the hedgerow needs to be undertaken by a competent person ahead of any hedge removal works. If a hedgehog is uncovered, allow it to move on its own accord. Disturbance

[8] Bat Conservation Trust. Guidance Note. Bats and Artificial Lighting in the UK. Bats and the Built Environment Series. https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/ (*accessed on 1st May 2023*).

through the uncovering should be enough to encourage the hedgehog to find an alternative resting spot. Works should commence on the following day. If the hedgehog is still present, then take care to move it to an alternative location where there is cover and minimal disturbance.

All excavations should be covered up overnight or means of escape provided. Means of escape could include the provision of an earth ramp or the placement of a plank of rough-sawn timber. Night lighting should be minimised as far as possible in line with that identified for bats above.

Construction materials must be stored off the ground on pallets and waste materials in skips.

An enhancement could include the provision of a hedgehog box. This should be placed in a sheltered position where disturbance will be minimal. A suitable location would be within the base of a hedgerow.

4.2 Conclusions

The proposed Scheme will not affect any statutory designated sites.

However, there will be 50m of hedgerow affected by the proposed Scheme, either through thinning or through the realignment of the hedgerow to improve the visibility splay. Elsewhere there will be 24m of hedgerow planted up, which will result in an overall increase in length, which once established, will provide additional benefits to wildlife through increased foraging resources, nesting sites and improved connectivity of habitats.

Approximately 100m^2 of grassland, of low ecological value will be permanently or temporarily affected to facilitate the works. The amount permanently lost will depend on the landscaping scheme. There will, however, be the provision of an additional 62m^2 of road verge as a result of the improved visibility splays.

In order to minimise the risk to small mammals, all excavations should be covered up overnight or means of escape provided. Means of escape could include the provision of an earth ramp or the placement of a plank of rough-sawn timber.

The evidence of bats recorded on site is limited to a single old pipistrelle dropping within the stable (Target Note 3). It is considered that there is a low chance of bats roosting in the stable and that it would be limited to a low number of bats who may choose to opportunistically use it in the future. A pre-works checks for evidence of bats ahead of any construction works is required. If evidence of roosting bats are recorded, then works will have to be carried out under a European Protected Species (EPS) Licence or a Low Impact Class Licence (LICL).

In order to minimise the risk to birds if works are undertaken during the nesting period, a check by a competent person will be required to undertake a nesting bird check in advance of undertaken any works on sensitive habitats including, grassland, hedgerows and buildings. If an active nest is recorded, the vegetation works must cease within 5m of the nest, until the young have fledged.

The installation of three bird boxes would compensate for the loss of suitable nesting habitat.

Further measures to minimise the risk of harm include material storage and construction waste management, which need to be carried out in line with the recommendations above to avoid any harm to wildlife.

The risk of harm to amphibians, birds, reptiles, hedgehogs and other wildlife posed by the proposed works is negligible if the above recommendations are followed. If any wildlife is uncovered, it must be safely relocated to a suitable habitat that will not be disturbed. The exception to this is of birds, where their nests must be left intact and only removed once the young have fledged or otherwise not used.

The delivery of the proposed enhancements as outlined in the recommendations above will provide a conservation gain.

Appendix A. Drawings

Appendix B. Figures

Key

- PEA extent
- Redline boundary

Document title: PEA overview of the Stables adjacent Weston House Cottage, Mendham, Harleston, IP20 0PB	
Revision: 1.0	
Date: 28/05/2023	
Client name: John Putman Architects	
Originator: Gintare Daunoraviciute Checker: Lee Rudd Reviewer: Lee Rudd Approved: Lee Rudd	
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Key

- PEA extent
- Redline boundary
- Target Note #
- Grass area #
- Hedge #
- Watercourse #
- Hawthorn scrub
- Tree #
- Other tree
- Road verge
- Arable land
- Buildings #
- Compacted gravel
- Hardstanding
- Field access point
- Timber fence
- Gateway

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Appendix C. Photographs

Photo 1. The stables, building 1. View from road. Looking at unit B1d, B1c, and B1b (right to left).

Photo 2. The stables, building 1. View from concrete pad/driveway. Looking at unit B1a and B1b (left to right).

Photo 3. The stables, building 1. Taken from paddock (grassland area 2).

Photo 4. The stables, building 1. Rear of property from arable field.

Photo 5. Rear of the stables, building 1.

Photo 6. Rear of the stables, building 1.

Photo 7. Rear of the stables, building 1. Small rot hole, where bluetit entered as identified by red circle.

Photo 8. Shows the stable, building 1 and building 2 as outlined in red.

Photo 9. View of plyboard soffit on the stables, building 1. Above unit B1a and B1b.

Photo 10. View of plyboard soffit on the stables, building 1. Above unit B1c and B1d.

Photo 11. View of unit B1a, building 1.

Photo 12. View of unit B1a, building 1.

Photo 13. View of unit B1a, building 1.

Photo 14. View of unit B1b and B1c, building 1.

Photo 15. View of storage area above soffit in building 1. Taken from within unit B1c.

Photo 16. View of storage area above soffit in building 1. Taken from within unit B1d.

Photo 17. View of storage area above soffit in building 1. Taken from within unit B1b.

Photo 18. View of unit B1d, building 1.

Photo 19. View of unit B1d, building 1.

Photo 20. View of unit B1d and B1c, building 1.

Photo 21. View of building 1 and building 2. Shows concrete pad.

Photo 22. View of building 3 and willow (T2)

Photo 23. View of building 3 and paddock (grassland area 2).

Photo 24. Shows compacted gravel access point to north of property.

Photo 25. Shows compacted gravel access area.

Photo 26. Shows compacted gravel area and grassland area 1.

Photo 27. Taken from the north of the property, looking at the northern access point, farmers access point, common ash (T1) and hedgerow 1.

Photo 28. Taken along hedgerow 1, looking at access point in front of building 1, the stables.

Photo 29. View of compacted gravel access point coming off road and line of trees (Target Note 1).

Photo 30. View of fence line along paddock (grassland area 2) and arable field.

Photo 31. View of grassland area 1.

Photo 32. View of grassland area 1 and hedgerow 1 (let) and hedgerow 4 (right).

Photo 33. View of timber/log pile in grassland area 1 alongside hedgerow 2. Target Note 2.

Photo 34. View of paddock (grassland 2). Hedgerow 3 to the right along with fence.

Photo 35. View of grassland area 2, the paddock. Shows rear of building 3 and hedgerow 3.

Photo 36. Shows grassland area 3/field verge alongside northern access point. Also shows common ash (T1).

Photo 37. View of northern access point and hedgerow 1.

Photo 38. View of access point in front of building 1, the stables. Also shows hedgerow 1.

Photo 39. View of hedgerow 3, south of the stables. Tree reference 2, is shown to the right (T2) as outlined in red.

Photo 40. View of watercourse 2.

Photo 41. View of common ash (T1).

Photo 42. Close up of common ash (T1) and watercourse (WC1).

Photo 43. Close up of common ash (T1).

Photo 44. Close up of common ash (T1).

Photo 45. Close up of common ash (T1).

Photo 46. View of hawthorn scrub along fence line of paddock (grassland area 2).

Photo 47. View of hedgerow 1 by gated access point in front of the stables, building 1.

Photo 48. View of log pile along hedgerow 2. Target Note 2. Looking south.

Photo 49. View of log pile along hedgerow 2. Target Note 2. Looking north.

Photo 50. View of gated access point in front of the stables, building 1. Also shows hedgerow 3.

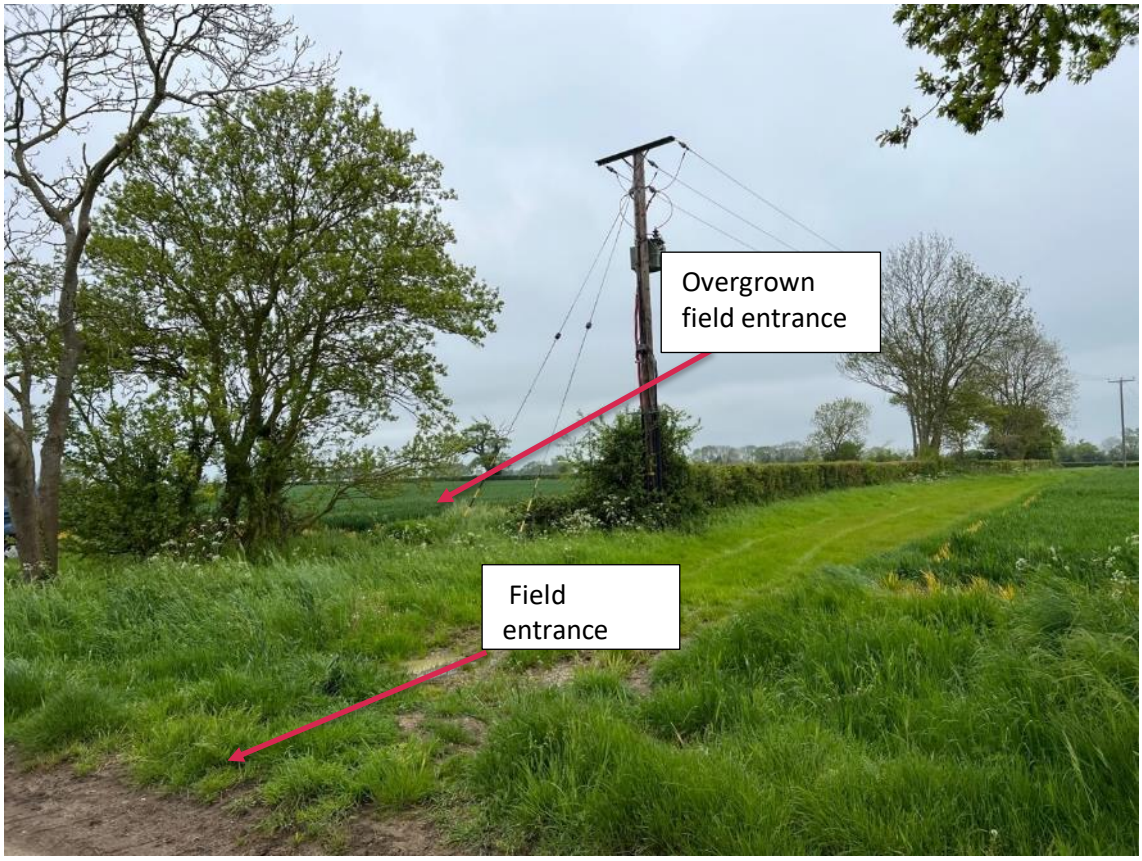

Photo 51. View of hedgerow 4, with common ash (T1) to left.

Photo 52. Swallow nest within rafters of the stables, building 1. Unit B1d.

Photo 53. Likely wood pigeon nest on stored timbers in the stables, building 1. Unit B1a.

Photo 54. Likely robin nest within building 2.

Photo 55. View of watercourse 1 (ref WC1) by common ash (T1).

Photo 56. View of watercourse 1 (ref WC1).

Appendix D. Legislation

Statutory designated sites

Special Areas of Conservation (SACs) are protected areas in the UK, designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea), and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 in the UK offshore area.

Under these Regulations, the UK Government and devolved administrations are required to establish a network of important high-quality conservation sites that will make a significant contribution to conserving the habitats and species identified in Annexes I and II, respectively, of European Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora, known as the Habitats Directive. The listed habitat types and species are those considered to be most in need of conservation at a European level (excluding birds). Of the Annex I habitat types, 78 are believed to occur in the UK. Of the Annex II species, 43 are native to, and normally resident in, the UK.

Special Protection Areas (SPAs) are protected areas for birds in the UK. They are protected through the same regulations as SACs as detailed above.

Ramsar Sites are wetlands of international importance designated under the Ramsar Convention. Sites proposed for selection are advised by the relevant statutory nature conservation body (or bodies) within the UK. The designation of UK Ramsar Sites has generally been underpinned through prior notification of these areas as Sites of Special Scientific Interest (SSSIs). Accordingly, these receive statutory protection under the Wildlife & Countryside Act 1981 (as amended). Government have also issued policy statements relating to Ramsar Sites which extend to them the same protection at a policy level as Special Areas of Conservation and Special Protection Areas.

Protected species

All birds, their nets and eggs are protected by The Wildlife and Countryside Act 1981, where it outlines it is an offence to intentionally kill, injure or take any wild bird. It is also against the law to damage or destroy the nest of any wild bird whilst it is in use or being built. It is also against the law to take, destroy the egg of any wild bird. There is additional protection for schedule 1 species, such as barn owl.

The Wildlife & Countryside Act 1981 (as amended) provides enhanced protection for **barn owls** and other schedule 1 species. The enhanced protection for schedule 1 species is that they can not be disturbed whilst nesting.

In Britain, **all bat species** and their roosts are legally protected by both domestic and international legislation. They are protected under both Wildlife and Countryside Act (1981) (as amended) and the Conservation of Habitats and Species Regulations (2017) (as amended).

Great crested newts are fully protected under the UK and European legislation. They are protected under both the Wildlife & Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2017 (as amended).

White-clawed crayfish is listed under Annex II of the habitats directive, while the areas are designated as Special Areas of Conservation to protect this species. Outside of these, a licence is required to capture this species. It is listed as a priority species under the Biodiversity Action Plan and is a Species of Principal Importance under Section 41 of the NERC Act 2006.

Reptiles, such as common lizard, slow worm, grass snake or adder, are protected under the Wildlife & Countryside Act (1981) as amended. The legislation makes it illegal to deliberately or recklessly kill or injure any native reptile. This protection therefore requires that reasonable effort be made to avoid harm to reptiles.

Otters are protected through the Wildlife and Countryside Act 1981 (as amended) and revised by the Countryside and Rights of Way Act 2004, making it an offence to:

- Intentionally kill, injure or take an otter; and/or
- Possess or control any (live or dead) otter, or any part of or anything derived from an otter; and/or
- Intentionally or recklessly damage or destroy or obstruct access to any structure or place used for shelter or protection by an otter; and/or
- Intentionally or recklessly disturb an otter while it is occupying a structure or place for that purpose; and/or
- Sell, offer for sale, possess or transport for the purpose of sale any (live or dead) otter or part or
- Derivative of an otter; and/or
- To advertise for buying and selling such things.

Furthermore, otters are included on Schedule 2 of the Conservation (Habitats &c.) Regulations (1994), making it an offence to:

- Deliberately to capture or kill a wild animal of a European protected species; and/or
- Deliberately to disturb any such animal; and/or
- Deliberately to take or destroy the eggs of such an animal; and/or
- Damage or destroy a breeding site or resting place of such an animal.

Otters are also listed as a priority species.

Water vole are protected through the Wildlife and Countryside Act 1981 (as amended), receiving full protection since 2008. The Wildlife and Countryside Act 1981, together with amending legislation, lists the following offences:

- Intentionally killing, taking or injuring a water vole; and/or
- Possessing or controlling any live or dead water vole, or any part or derivative; and/or
- Intentionally or recklessly damaging or destroying a water vole's place of shelter or protection; and/or
- Intentionally or recklessly disturbing a water vole whilst it is occupying a structure or place which it uses for shelter or protection; and/or
- Intentionally or recklessly obstructing access to a water vole's place of shelter or protection; and/or
- Selling, offering for sale, or possessing or transporting for the purposes of sale, any live or dead water vole, or any part or derivative, or advertising any of these for buying or selling.

Water vole is a Species of Principal Importance under Section 41 of the NERC Act 2006.

Protection of Badgers Act 1992 lists both badgers and their setts as protected. A licence may be obtained from Natural England if disturbance of badgers in their sett cannot be avoided or their sett is to be damaged.

Other protection

The Hedgerows Regulation 1997 aims to protect important hedgerows in the countryside. They make it illegal to remove most countryside hedges without first notifying the local planning authority and provide protection for "important hedgerows".

The Animal Welfare Act 2006 is the principal law relating to animal welfare. Animal cruelty includes causing unnecessary suffering to an animal and poisoning an animal. The 2006 Act applies to all vertebrate animals, including badgers, bats, foxes and rabbits (this is not an exhaustive list).

National Planning Policy - National Planning Policy Framework (NPPF). Section 15 of the National Planning Policy Framework. Planning policies and decisions should contribute to and enhance the natural and local environment by "… minimising impacts on and providing net gains for biodiversity… 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."

Natural England Licensing - EPS Mitigation Licensing

Licences can be obtained from the Wildlife Management and Licensing Service at Natural England to allow certain activities that would otherwise constitute an offence for the purposes of development (e.g. destruction of a bat roost, loss of great crested newt aquatic and terrestrial habitat, etc).