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Biodiversity Enhancement Strategy

Land at Sumners Pond, Chapel Road, Barns Green

January 2024. Issue 1

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1.0 Introduction

Background

1.1 This Biodiversity Enhancement Strategy is prepared to support the proposed development at Land at Sumners Pond, Chapel Road, Barns Green. The scheme was approved by Horsham District Council, under Planning Application Ref: DC/21/2697. The site layout is provided in **Appendix 1**.

1.2 This report is intended to provide sufficient information to discharge Condition 13 of the Decision Notice and details measures for the enhancement of biodiversity on the site post-development.

1.3 Condition 13 states:

Pre-Commencement (Slab Level) Condition: No building above ground floor slab level of any part of any phase of the development hereby permitted shall commence until a Biodiversity Enhancement Strategy for protected and Priority species for that phase has been submitted to and approved in writing by the local planning authority. The content of the Biodiversity Enhancement Strategy shall include the following:
a) Purpose and conservation objectives for the proposed enhancement measures;
b) detailed designs to achieve stated objectives;
c) locations of proposed enhancement measures by appropriate maps and plans;
d) persons responsible for implementing the enhancement measures;
e) details of initial aftercare and long-term maintenance (where relevant).
The works shall be implemented in accordance with the approved details and shall be retained in that manner thereafter.

Site Description

1.4 The site comprises an area of land developed for mixed farming and commercial use, together with an earth bund to the south and a small field to the north. The Ordnance Survey map reference for the centre of the site is TQ 1248 2680. It is proposed to redevelop the field to the north of the site for residential use and the area to the south for mixed residential and commercial use, all with associated hard landscaping (access and parking etc) and soft landscaping (including private gardens and communal space and planting beds).

2.0 Enhancement Measures

Summary Measures

2.1 The Preliminary Ecological Appraisal by EAS Ltd, dated September 2021 recommended the following biodiversity enhancements for the site:

- Retaining and enhancing existing hedgerows;
- Inclusion of wildlife-friendly/ nectar-rich planting into landscaping plans to benefit bats, nesting birds and invertebrates;
- Wetlands (swales and ponds) planted with aquatic species;
- Provision of integrated bat boxes within proposed buildings (away from artificial light) or the provision of traditional bat boxes that could be hung on retained trees/new buildings;
- Provision of bird boxes that could be hung on retained trees/new buildings;
- Provision of hedgehog highways throughout the development;

Purpose and Objectives

2.2 The enhancement strategy is designed to maximise the ecological value of the retained and created habitats especially the high value boundary habitats and wildflower grasslands. These habitats then provide foraging and breeding habitats for a wide range of protected and notable species including bats, birds and reptiles. The built realm is also enhanced with breeding sites for bats and birds and access for hedgehogs.

Habitats

2.3 The existing habitat were identified as a grass field to the northern part of the site used for parking and storage with boundary hedgerows and a ditch along the western boundary; Farm Building and associated hard standings and a landscape bund with evergreen hedge and access road. The development will see the loss of these areas in their existing identity, albeit the hedgerows and the ditch are noted to be retained. Detailed landscape proposals propose planting of trees, hedgerows and wildflower grassland as part of the development. These details are subject to approval for soft landscaping under Planning Condition 18.

Hedgerows

2.6 Existing hedgerows on the eastern, northern and western boundaries of the northern parcel are proposed to be retained. Infill and supplementary planting of a native species is to be added where required. Proposed species to include hawthorn *Crataegus monogyna*, blackthorn *Prunus spinosa* and hazel *Corylus avellana.* A full species list will be detailed landscape proposal.

2.7 Formative and maintenance pruning of the hedges will be undertaken as required (based on annual inspection) to maintain a framework of strong branches. Non-diseased dead and decaying wood will be left in situ wherever possible for wildlife benefit, but where such branches are removed, they will be used to add to log piles within the site to provide enhanced refuges for wildlife such as reptiles.

Wildflower grassland

2.8 Wildflower grassland mix will be sown to open space areas of the site as well as bordering the proposed hedgerows to compensate for loss of habitat and enhance the site for biodiversity. Proposed wildflower species include *WFG8 Hedgerows and Shaded Areas mix* and *WFG18 Butterfly and Honeybee mix*. A full species list is provided in the detailed landscape proposal.

2.9 These areas will be managed to be of benefit to biodiversity through the maintenance of a long sward height and appropriate seasonal timings for maintenance cuts that allow for plants to flower and set seed and minimise risk of harm to reptile species.

2.10 In the first year after seeding, the grassland will be slow to germinate and may be outcompeted by fast growing annual weeds. Annual weeds will therefore be managed through regular mowing to a height of 40-60mm in the first year, removing cuttings if dense. In the second and subsequent years, the grassland will be managed through cutting to 150mm biannually in March and late summer, allowing the plants to flower and seed.

2.11 It is considered that the inclusion of hedgerows and wildflower grassland will benefit a range of protected and notable species including foraging/commuting bats, nesting birds, invertebrates, hedgehogs, and reptiles.

Fauna

2.12 Measures set out below for protected species are detailed within the Ecology Enhancement Plan provided in **Appendix 3**.

Bats

2.13 A bat box scheme will be incorporated into the development. This will entail the provision of 3 integrated bat boxes on new buildings. Proposed locations are shown on the Ecological Enhancement Plan in **Appendix 3**. Boxes will be installed as high up as possible on gable ends, preferably southerly facing.

2.14 A variety of bat boxes that can integrate seamlessly into the design of new buildings are available; a suitable example is the *Habibat Bat Box*, which can be supplied plain for a rendered finish, or faced with brick.

Figure 1: Habibat Integrated Bat Box



Birds

2.15 To compensate for the loss of farm buildings and the loss of opportunities to nest in these, replacement nesting opportunities are to be provided. This is to include the provision of nesting boxes to suit various species. These are to be secured to existing trees at high leve

Bird nesting boxes designed for woodland and garden birds, are to be secured to the retained mature trees within the site. These are to include:

• 3 boxes with a 28 mm diameter hole
• 3 boxes with a 32 mm diameter hole
• 3 open fronted bird boxes

Proposed locations are shown on the Ecological Enhancement Plan in **Appendix 3**. Boxes will be installed as high up as possible on gable ends, preferably northerly facing to avoid overheating.

Figure 2: Open Fronted Bird Box and typical front holed (28 & 32mm options)





Reptiles

2.18 Enhancement of the site for reptiles is to include the retention of the existing hedgerows and the drainage ditch along the western boundary of the northern field, and creation of new sections of hedgerows within the site to provide cover, foraging potential and connectivity (dispersal routes) across the site.

Further enhancement is to be provided through the addition of two new surface water features comprising a pond to the northern part of the site and a swale within the southern.

Hedgehog

2.19 The hedgerows along the boundaries of the northern field are to be retained and maintained in a condition suitable to support hedgehogs (and other species) in the long-term.

Gaps (measuring 100 mm x 100 mm) are to be provided within all new fencing gravel boards to permit access across and around the site for hedgehogs. In addition new sections of mixed, native species hedgerows have been included within the site layout to improve connectivity along the western and southern boundaries of the southern section of the site. As part of the proposed soft landscaping proposals new shrub planting is included across the site, increasing shelter and foraging potential for this species.

Figure 3: Hedgehog friendly fencing



3.0 Management and Timing of Works

3.1 Detailed management is found in Table 1 for all habitat types and ecological features. The timing of works attempts to avoid direct impacts on protected species.

Table 1: Ecology Management Plan for Years 1-5

Item	Year 1	Year 2	Year 3	Year 4	Year 5
Wildflower Grassland and hedgerow margins	Sow new grassland areas and mow regularly to a height of 40-60mm through 1st year to control annual weeds.	Cut all grass to 150mm biannually in March and late summer, allowing the plants to flower and seed.	Repeat as per year 2	Repeat as per year 2	Repeat as per year 2 and follow thereafter.
Woodland belts and hedgerows	Plant from November to March and mulch 1m diameter around trunk; maintain this area free of vegetation growth for 1st 3 years.	Inspect annually and take any remedial action as required to ensure successful establishment.	Repeat as per year 2.	Allow surrounding grass sward to grow to base of trees. Continue annual inspections and undertake formative pruning as required	Repeat as per year 4 and follow thereafter.
Bat Boxes	Install boxes in accordance with the specifications set out in the BES and Ecological Enhancement Plan. Ensure artificial roosts are not illuminated by any site lighting.	Boxes are self-maintaining and require no further maintenance thereafter.			
Bird Boxes	Install boxes in accordance with the specifications set out in the BES and Ecological Enhancement Plan.	Boxes are self-maintaining and require no further maintenance thereafter.			
Hibernacula/log piles	Create hibernacula in accordance with BES specifications.	Annual inspection: add further materials to hibernacula if and when required.	As per year 2.	As per year 2. Utilise materials from pruning to create new ad-hoc log-piles within open space to provide further refuge opportunities.	As per year 4 and follow annually thereafter.
Hedgehog highways	Create hedgehog highways in fences. On occupation, issue leaflet to homeowner clarifying the purpose for the gap and to indicate that it should be left open.	Reminder leaflet to homeowners as per year 1.			

4.0 Personnel

4.1 A suitably qualified ecologist will ensure the delivery of the BES. This will be achieved through the provision of on-site and off-site advice to deliver ecological mitigation and enhancements, as necessary.

4.2 A biodiversity champion will be nominated by the main contractor and will be the onsite initial point of contact for wildlife related matters. The ecologist will liaise with the biodiversity champion to ensure this BES is implemented correctly and in the event of any unforeseen wildlife issues arising on site. The liaison will ensure the correct installation of enhancement features.

5.0 Conclusions

5.1 A summary of enhancement measures is provided below:

- Inclusion of wildlife-friendly/ nectar-rich planting into landscaping plans to benefit bats, nesting birds, hedgehogs, reptiles and invertebrates;
- Inclusion of 3no. integrated bat boxes on six buildings;
- Installation of 9no. bird boxes;
- Installation of hedgehog highways between gardens throughout the site;
- A biodiversity champion will be nominated by the main contractor and will be the onsite initial point of contact for wildlife related matters. The ecologist will liaise with the Biodiversity Champion to ensure this BES is implemented correctly and in the event of any unforeseen wildlife issues arising on site.

5.2 It is considered that the measures detailed within this BES will ensure the delivery of appropriate ecological enhancements for protected and priority species in the development of the site, thereby facilitating the discharge of Condition 13 of Decision Notice, ref DC/21/2697 and allowing the LPA to discharge its duties under the s40 of the NERC Act 2006.

Appendix 1: Development Plan


N
Little Slaughterford
Farm Cl
Chapel Road
The Old Farm House
Farm Pond
Sumners Cottage
Slaughterford Bungalow
Current Green
Existing wooden bridge
Existing access to Holiday Chalet Allotment
Overhead cables to be diverted with minimum 5m clearance
Public Right of Way to be retained running 3.5m wide footpath
Existing drainage ditch to be diverted and re-instated
Gas Utility to be diverted
Existing hedgerow to be retained and protected
Existing hedgerow to be retained and protected
Existing hedgerow to be retained and protected

Appendix 2: Ecology Enhancement Plan

