Biodiversity Enhancement Strategy (BES)

Slaughterford Farm

Barns Green

February 2024

DEEPDENE
ECOLOGY

Client	Harry Smith
Site	Slaughterford Farm, Chapel Road, Barns Green, West Sussex, RH13 0PR (the 'Site')
Report type	Biodiversity Enhancement Strategy (BES)
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Associated reports	Preliminary Ecological Assessment (PEA), August 2023 (Deepdene Ecology)
Version	Version 2, issued by Deepdene Ecology Ltd

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The report is provided for the sole and exclusive use of Harry Smith in response to his particular instructions for a planning application associated with 'Slaughterford Farm, Chapel Road, Barns Green, West Sussex, RH13 0PR'. This report has been prepared by an environmental specialist and does not purport to provide legal advice. You may wish to seek separate legal advice. All rights in this report are reserved. Any unauthorised reproduction or usage by any other person is prohibited.

The contents of this report have been produced with due consideration of current best practice guidance, and in accordance with the Chartered Institute of Ecology and Environmental Management's (CIEEM) Code of Professional Conduct.

Data within this report is valid for a maximum of 18 months from the date of the survey. After this period, an updated site visit will be required to determine a new ecological baseline. More up-to-date survey data may be required for a planning application or licensing, depending on conditions and impacts.

Whilst every effort has been taken to ensure the accuracy of this report and its contents, in view of potential ecological constraints to development or the likely presence or absence of species, it must only be viewed as a snap-shot in time and, therefore, not be viewed as definitive. Due to external factors, such as seasonality, weather etc, having the potential to affect survey results, no liability can be assumed for omissions or changes that may, or may not occur, after the date this report was produced.

1 INTRODUCTION

1.1 Background

Deepdene Ecology Ltd has been commissioned by Harry Smith to produce a 'Biodiversity Enhancement Strategy' (BES) in association with the change of use of two parcels of agricultural land for the exercising of dogs at 'Slaughterford Farm, Chapel Road, Barns Green, West Sussex, RH13 0PR' (hereafter referred to as the 'Site').

Planning permission has been granted by Horsham District Council (DC/23/0242) for ongoing use of two areas within the farm for commercial dog walking, along with the installation of perimeter fences.

The permission has one planning condition (Condition 4) related to biodiversity at the Site, which is as follows:

Within three months of the date of this permission (by 14 March 2024), a Biodiversity Enhancement Strategy for bespoke biodiversity enhancements, prepared by a suitably qualified ecologist in line with the recommendations of the Ecological Appraisal (Deepdene Ecology Ltd, September 2023), shall be 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 or product descriptions to achieve stated objectives;

c) locations, orientations and heights of proposed enhancement measures by appropriate maps and plans (where relevant);

d) persons responsible for implementing the enhancement measures; and

e) details of initial aftercare and long-term maintenance.

The works shall be implemented in accordance with the approved details shall be retained in that manner thereafter.

This BES document has been produced to provide sufficient detail to Horsham District Council, to discharge Planning Condition 4 and will be used to inform the landscaping plans to ensure the proposals will enhance the value of the Site for local wildlife. The enhancement measures detailed within this document will ensure that the proposals meet the requirements of Policies 25, 26 and 31 of the Horsham District Planning Framework (November 2015).

The contents of this BES has been based on the following drawings and photographs provided:

- Proposed Site Plan (November 2022[1]);

[1] Author unknown, (2022). *Proposed Site Plan.* November 2022.

- Existing information from the Preliminary Ecological Assessment report (PEA) (Deepdene Ecology, August 2023[2]).

The PEA report (Deepdene Ecology, 2023) should be read alongside this BES since it details all mitigation for protected/notable species and habitats that is required.

1.2 The Site

The Site includes the two parcels of land which are within the wider area of Slaughterford Farm and Sumners Ponds Fishery and Campsite (see **Figures 1** & **2**). The two areas are existing dog exercise areas known as 'Dog Meadow' and 'Dog Wood'. Dog Meadow is centred on grid reference (TQ120267) in the west of the farm, and Dog Wood (TQ121270), in the north-west of the farm. Within the immediate area, around the two parcels of land, there are wider areas of cattle pasture, networks of hedgerows and pockets of ancient woodland, along with the large fishing lakes.



Figure 1: Site boundary shown in red (indicative only). Image taken from Google Earth.

[2] Deepdene Ecology Ltd (2023). *Ecological Assessment, Sumners Ponds, Barns Green*. Issued September 2023.



Figure 2: Site context shown in red (indicative only). Image taken from Google Earth.

1.3 Development Scheme

There are no proposed changes or alterations to either of the two areas and they will remain in use as commercial dog walking areas. Permission is required for the ongoing use of both areas. The access route to both areas is via an existing hardcore access track that runs from the road through the Site and is currently in use. The Site Plan is provided in **Appendix A**.

2 BASELINE ECOLOGICAL CONDITIONS

2.1 Ecological surveys

A walkover survey of the Site was undertaken in August 2023 to inform the PEA. The purpose of this was to determine the likelihood of any protected species being present on Site, recommend any further surveys (as required) and highlight any sensitive ecological features. The PEA report is provided separately (Deepdene Ecology, 2023) with a brief overview included below.

2.2 Habitats

The Site consisted of two areas within the farm that are currently fenced and used for dog exercise. Dog Meadow was the larger area and comprised of a more diverse habitat mix, and Dog Wood was dominated by even-age plantation woodland with a narrow band of grassland.

The main habitats found within the two areas include:

- Bare ground: a small hardcore parking area outside the main fenced dog exercise area;
- Building: a small shelter in the eastern side of Dog Meadow. No buildings were present in Dog Wood.
- Hedgerows: a short stretch of hedgerow that ran along the south-eastern boundary of Dog Meadow, along with a newly planted stretch along the north-eastern boundary. No hedgerows were present at Dog Wood.
- Semi-improved grassland: the majority of Dog Meadow and a smaller area of Dog Wood were comprised of closely mown semi-improved grassland.
- Scattered scrub: small areas of bramble scrub were present along the boundary of Dog Meadow. No scrub was present in Dog Wood.
- Standing open water: a small, fenced dog pond was present in each area for use by dogs for swimming.
- Woodland (broadleaved plantation): there was a small broadleaved planted copse in both areas.

There are no statutory designated sites for nature conservation within 2km of the Site. Bishop's Wood Five Oaks Site of Nature Conservation Interest (SNCI) is located approximately 760m west of the Site.

There are small pockets of Priority Deciduous Woodland (Section 41 NERC Act habitats of principal importance) and ancient woodland within 1km of the Site. The closest ancient woodland block is displayed as running along the southern boundary of dog meadow. It also appears that the western corner of Dog Wood is adjacent to another block of ancient woodland. The new plantation woodland within Dog Meadow is also displayed as being 'Priority Woodland' habitat.

2.3 Protected Species

Based on the findings of the PEA undertaken in August 2023, a summary of the protected/notable species that would benefit from ecological enhancements are briefly detailed below.

2.3.1 Bats

The only building within the two areas was the wooden field shelter in Dog Meadow. This structure did not have any crevices or cavities that could support roosting bats and therefore it was considered to offer negligible suitability and no further surveys were necessary.

The woodland within the two areas was comprised of recently planted, even-age trees and it did not contain any mature trees that could have supported potential roosting features for bats.

The hedgerows, woodland edges and grassland offer moderate potential to support foraging and commuting bats.

2.3.2 Nesting birds

The vegetation and building within the Site have the potential to support low numbers of common and widespread species of nesting birds during the nesting bird season (February - October inclusive). Birds are likely to use the Site for foraging and some species would benefit from the provision of berry-bearing shrubs and additional nesting opportunities.

2.3.3 Reptiles

The habitat within the Site was dominated by mown grassland and plantation woodland which is not considered suitable for reptiles. The hedgerow bases have some potential to support individual common species such as slow worm.

2.3.4 Amphibians

Based on the current design and the Site's current condition, the proposed plans are not considered likely to impact great crested newts if they are present in the nearby area. The habitats to be impacted are of very limited value (mown semi-improved grassland and even-age plantation) and connectivity to the wider area will not be affected by the proposals with all hedgerows maintained.

2.3.5 [redacted]

[redacted]

2.3.6 Invertebrates

There are limited opportunities for pollinators in the existing hedgerow along the north-eastern boundary of the Site and additional landscaping using some flowering species would be beneficial. The provision of a small dead wood piles within the Site would also benefit insects that feed on dead wood.

3 ECOLOGICAL ENHANCEMENT AIMS

The development proposals are relatively small scale and will incorporate an Ecological Enhancement Plan (**Appendix B**) that will provide features that protect and enhance the retained features on Site.

The proposed ecological enhancements are proportionate to the scale of the proposals and the benefits that can be provided within this rural Site setting. The main aims of the enhancement measures are as follows:

- Delivery of wildlife-friendly native shrub planting and hedgerows within the landscaping scheme. A diverse mix of native species will be included which would benefit a variety of local wildlife;
- Provision of bat roosting opportunities within the Site;
- Provision of nesting opportunities for birds;
- Sympathetic lighting plan in relation to foraging and commuting bats; and
- Provision of log pile refugia for invertebrates, amphibians and reptiles installed close to the woodland/hedgerows.

4 ENHANCEMENT MEASURES

The enhancement measures that have been incorporated into the design are provided below and displayed in the figures in **Appendix B**.

4.1 Wildlife friendly landscaping

By the nature of the use of the Site by dogs for exercise, there is only limited scope for planting within both areas. The Enhancement Plan includes some small areas of wildlife-friendly landscaping (see **Appendix B**) where it is considered to have a chance of not being trampled by the dogs.

4.1.1 Species-rich shrubs and hedgerow

A new hedgerow will be planted along the southern boundary of Dog Wood, along with a small area of native species-rich shrub planting along the eastern boundary. Species-rich native shrubs will be used with a focus on berry-bearing or flowering plants which would benefit local wildlife such as blackbirds *Turdus merula* and song thrush *Turdus philomelos* as well as pollinators. The hedgerow will be double staggered with approximately 5-7 plants per metre.

At Dog Meadow, there is a newly planted hedgerow along the northern boundary of the Site and this will be enhanced through the planting of a mix of shrubs since it was largely comprised of hawthorn.

Suitable plants which can tolerate some shade will be included within the landscaping plan are provided in **Table 1** below.

Table 1: Native and wildlife friendly shrubs and flowering plants

Common name	Scientific name
Hazel	*Corylus avellana*
Elder	*Sambucus nigra*
Hawthorn	*Crataegus monogyna*
Dog rose	*Rosa canina*
Guelder rose	*Viburnum opulus*
Wayfaring tree	*Viburnum lantana*
Shrubby cinquefoil	*Potentilla fruticose*
Raspberry	*Rubus idaeus*
Black currant	*Ribes nigrum*
Blackthorn	*Prunus spinosa*
Buckthorn	*Rhamnus catharticus*
Butcher's-broom	*Ruscus aculeatus*
Dogwood	*Cornus sanguinea*
Field rose	*Rosa arvensis*
Firethorn	*Pyracanthus angustifolia*
Flowering Currant	*Ribes sanguineum*
Gooseberry	*Ribes uva-crispa*
Holly	*Ilex aquifolium*
Japanese quince	*Chaenomeles japonica*
Lavender	*Lavandula angustifolia*
Lilac	*Syringa vulgaris*
Mexican orange	*Choisya ternate*
Midland hawthorn	*Crataegus laevigata*
Privet	*Ligustrum ovalifolium*
Spindle	*Euonymus europaeus*
Spurge laurel	*Daphne laureola*
Sweet briar	*Rosa rubiginosa*
Thyme	*Thymus polytrichus*
Wild privet	*Ligustrum vulgare*

4.1.2 Existing grassland

Whilst a pathway will be maintained within the semi-improved grassland in both areas, the majority of the grassland will be less intensively managed to allow a taller sward height to develop. It is acknowledged that the height must be kept relatively short for ease of retrieval of dog waste, however during the walkover survey, it was very tightly mown throughout. This will be achieved through a more relaxed mowing regime (see **Section 5**).

4.2 Bat roosting opportunities

Three bat boxes will be installed on trees within each area. The location of these features is provided in **Appendix B**.

It is recommended that the boxes are woodcrete or a high quality wooden box as they will last many years and require little maintenance. The boxes used would be suitable to support the species likely to be present within the local area such as the Eco Kent Bat Box[3] (see **Figure 3**) or the Large Multi Chamber WoodStone Bat Box[4] (see **Figure 4**). The box will be positioned in a shady position, 3-5m above ground level, and face in a south/south-westerly direction with a clear flight path to and from the entrance. No external lighting will be permitted that spills onto the bat box hung. These types of boxes are suitable for pipistrelle (*Pipistrellus* spp.) bats which are crevice roosting species likely to be found within the immediate area of the Site.



Figure 3: Eco Kent Bat Box



Figure 4: Large Multi Chamber WoodStone Bat Box

4.3 Bats - lighting

The Site is likely to support common species of foraging and commuting bats and ancient woodland habitat is located in close proximity to the Site. Artificial lighting is known to result in the loss of foraging habitat available and can also interfere with commuting routes from roosts (Stone, 2012)[5]. Therefore, lighting will be kept to a minimum (during operation) and follow guidance from the Bat Conservation Trust & ILP '*Bats and artificial lighting in the UK*' (2018)[6]. This includes:

[3] https://www.nestbox.co.uk/products/eco-kent-bat-box
[4] https://www.nhbs.com/large-multi-chamber-woodstone-bat-box
[5] Stone, E. L.–2. (2012). Conserving energy at a cost to biodiversity? Impacts of LED lighting on bats. Glob Change Biol., 18:2458-2465
[6] ILP & BCT. (2018). *Bats and artificial lighting in the UK: Bats and the Built Environment Series.* . London: Institution of Lighting Professionals.

- Direct any task lighting used during construction away from trees and hedgerows;
- Set any necessary security lighting on short timers (e.g. 1 minute) with a sensitivity to large moving objects only;
- Directional lighting or shielding such as hoods or cowls should be used to avoid light being directed at the sky or towards the boundary vegetation or bat boxes;
- Limit lighting times to provide dark periods;
- LED luminaires are preferred due to the lower intensity, sharp 'cut-off', colour rendition and dimming capability;
- All luminaires should lack UV elements and metal halide fluorescent sources should not be used;
- Avoid white and blue wavelengths of the light spectrum and keep the brightness of the lamps as low as feasibly possible; and
- Carefully consider the height of columns to avoid light spill.

4.4 Bird nesting opportunities

In order to increase the available nesting opportunities for birds, three universal bird boxes will be installed on trees within each area. **Appendix B** shows the location of the bird boxes. Either the Vivara Pro Seville bird boxes (see **Figure 5**) or a 1B Schwegler box (see **Figure 6**) will be used as these boxes are suitable for species such as house sparrow, blue tit, great tit, nuthatch *Sitta europaea* and coal tits *Periparus ater,* which are all species likely to be breeding within the area.



Figure 5: Vivara Pro Seville bird box



Figure 6: 1B Schwegler bird box

All of the boxes will be installed at least two meters above ground level, away from possible sources of predation, away from direct strong sunlight and in proximity to vegetation where possible. This is in line with the RSPB[7] and British Trust for Ornithology's (BTO) guidance[8] on where to site a bird box.

[7] https://www.rspb.org.uk/birds-and-wildlife/advice/how-you-can-help-birds/nestboxes/nestboxes-for-small-birds/making-and-placing-a-bird-box/

[8] https://www.bto.org/how-you-can-help/providing-birds/putting-nest-boxes-birds/putting-nest-box

4.5 Log pile refugia

A log pile will be created in a shady corner of each area of the Site, refer to **Appendix B** for its location. This log pile will provide a suitable refuge for species such as slow worm *Anguis fragilis,* grass snake *Natrix helvetica* and common frog *Rana temporaria* which may all be present within the wider area. In addition, invertebrates, particularly dead wood consuming species will benefit from a log pile.

In order to construct the log pile, branches at least 10cm thick will be used and these will be stacked to create a pile at least 50cm tall. Where possible, a range of different sized logs and sticks will be used to create the log pile. To ensure the log pile remains stable, stakes or sticks will be inserted into the ground to prevent the logs from rolling. A detailed specification is provided in **Appendix C**.

5 FURTHER DETAILS

5.1 Responsibilities and key personnel

Ensuring that the measures outlined within this document are followed and legislation is adhered to will be the responsibility of client.

The ongoing management and aftercare of the Site will be the responsibility of the client.

5.2 Management & aftercare

5.2.1 Annual action summary plan

The annual action summary plan for the Site is provided in **Table 2**.

Table 2: Annual action summary plan

Action	J	F	M	A	M	J	J	A	S	O	N	D
Grassland areas												
Cut to a minimum height of 70mm; all cut material to be collected and removed.						✓	✓	✓	✓			
Monitor weed & scrub growth & undertake control measures if required.					✓	✓						
Native shrub planting												
Watering during first year of				✓	✓	✓	✓	✓	✓			

establishment / thereafter as required.												
Annual weeding around new planting & check mulch layer.					✓	✓	✓					
Checks of tree shelters, stakes & ties.		✓							✓			
Pruning in Years 2 & 5, as required. Outside bird nesting season.	✓	✓								✓	✓	✓
Monitoring of trees in autumn & replacement of dead/diseased specimens.	✓	✓								✓	✓	✓
New hedgerow plants												
Watering during first three years of establishment/as required.				✓	✓	✓	✓	✓	✓			
Weeding around planting & maintenance of mulch layer for first five years.				✓	✓	✓	✓	✓	✓			
Monitoring of hedgerow plants in autumn & replacement of dead/diseased specimens.	✓	✓							✓	✓	✓	✓
Selective pruning in first three years to promote dense bushy growth	✓	✓							✓	✓	✓	✓
Trimming on annual basis after year 4, if required.	✓	✓							✓	✓	✓	✓
Birds												
Vegetation management undertaken outside	✓	✓								✓	✓	✓

bird nesting season (Oct - Feb).												
Any vegetation management required during nesting season to be subject to inspection by an ecologist.			✓	✓	✓	✓	✓	✓	✓			
Bird boxes to be maintained & replaced as required	✓	✓								✓	✓	✓
Bats												
Bat boxes to be maintained and replaced as required.									✓	✓		

5.2.2 10 Year Management Plan

The ten year action summary plan for the Site is provided in **Table 3**.

Table 3: Ten year action plan summary

Action	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Grassland										
Minimum number of cuts each year in order to leave flowers for as long as possible for pollinators.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Shrub planting										
Water well for the first 3 years until established, thereafter as required.	✓	✓	✓							
Weeding around new planting & check mulch layer.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Check of tree shelters, stakes & ties. Remove when no longer required.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Pruning (if required) in years 2, 5 & 10.		✓			✓					✓
Monitoring of trees in autumn & replacement of dead/diseased specimens.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
New hedgerow planting										
Water well for first 3 years, thereafter as required.	✓	✓	✓							
Weeding around new planting and check mulch layer.	✓	✓	✓	✓	✓					
Monitoring of shrubs in autumn & replacement of dead/diseased specimens.	✓	✓	✓	✓						
Selective pruning in first 3 years to promote dense bushy growth.	✓	✓	✓							
Trimming on an annual basis, after year 4, if required.					✓	✓	✓	✓	✓	✓
Nesting birds										
Vegetation management to be undertaken outside nesting bird season.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Any vegetation management required during nesting season to be subject to inspection by ecologist.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Bird boxes on trees to be maintained and replaced as required.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Bats										

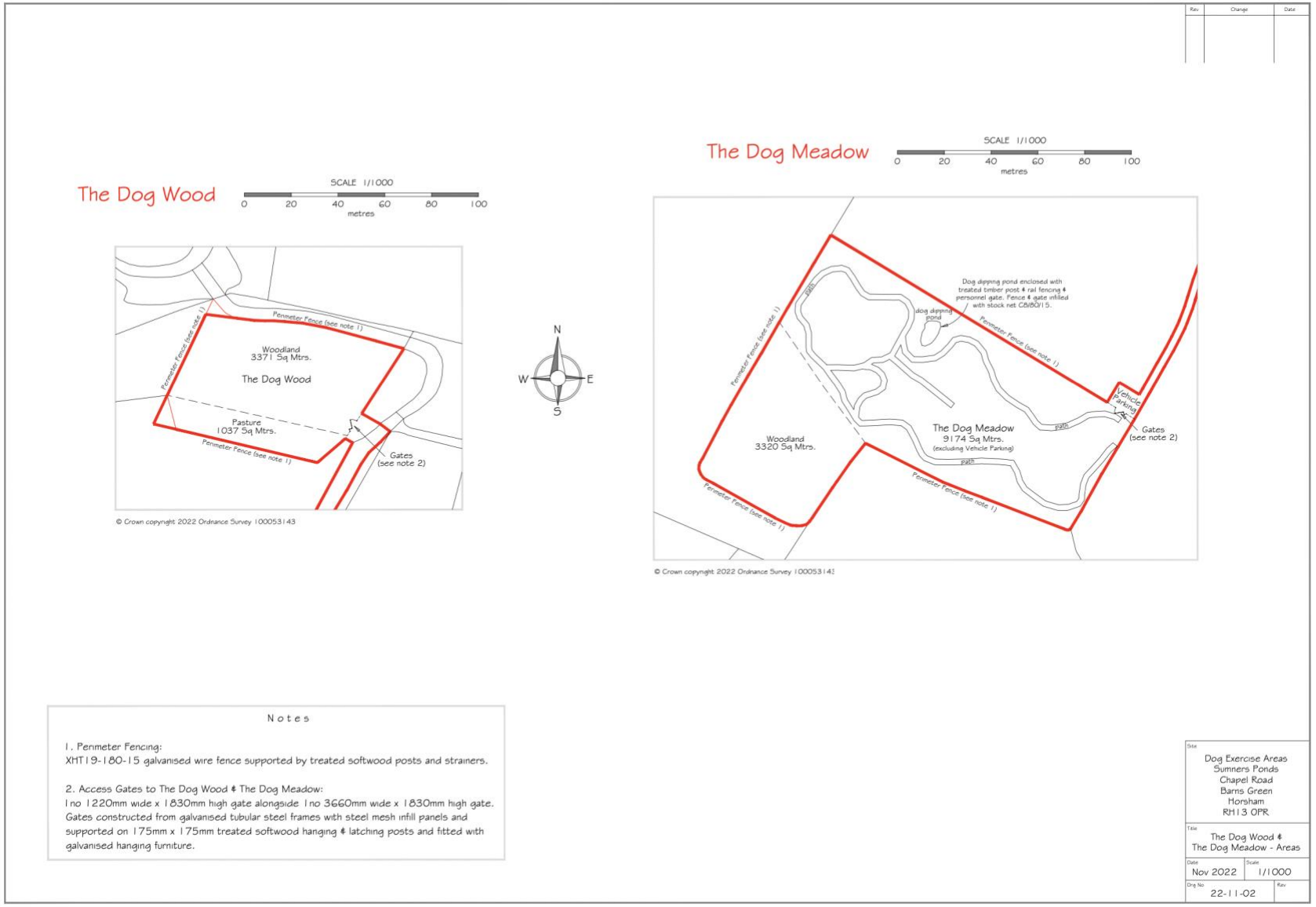
Bat boxes on trees to be maintained and replaced as required.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

6 CONCLUSIONS

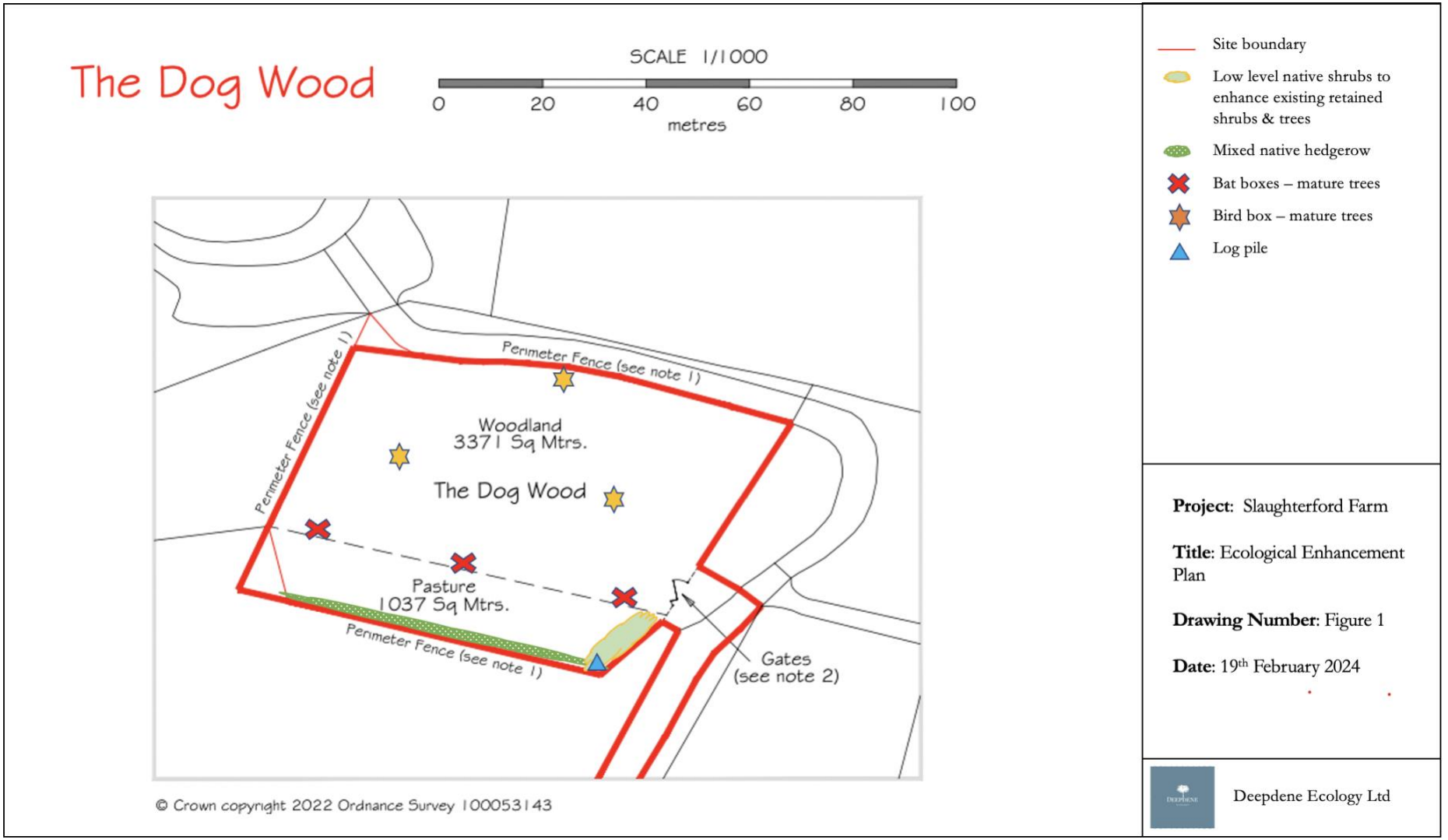
This BES has been designed based on a recent ecological walkover of the Site. The proposed enhancements are proportionate to the scale of the development and have been designed to benefit wildlife that is likely to be present in the area and attracted to the habitats currently present and proposed post-development.

The proposals will benefit nesting and foraging birds, bats, reptiles, amphibians and invertebrates. These enhancement measures will ensure that the proposals will meet the requirements of Planning Condition 4 for the Site and the criteria of the Horsham District Council local planning policy.

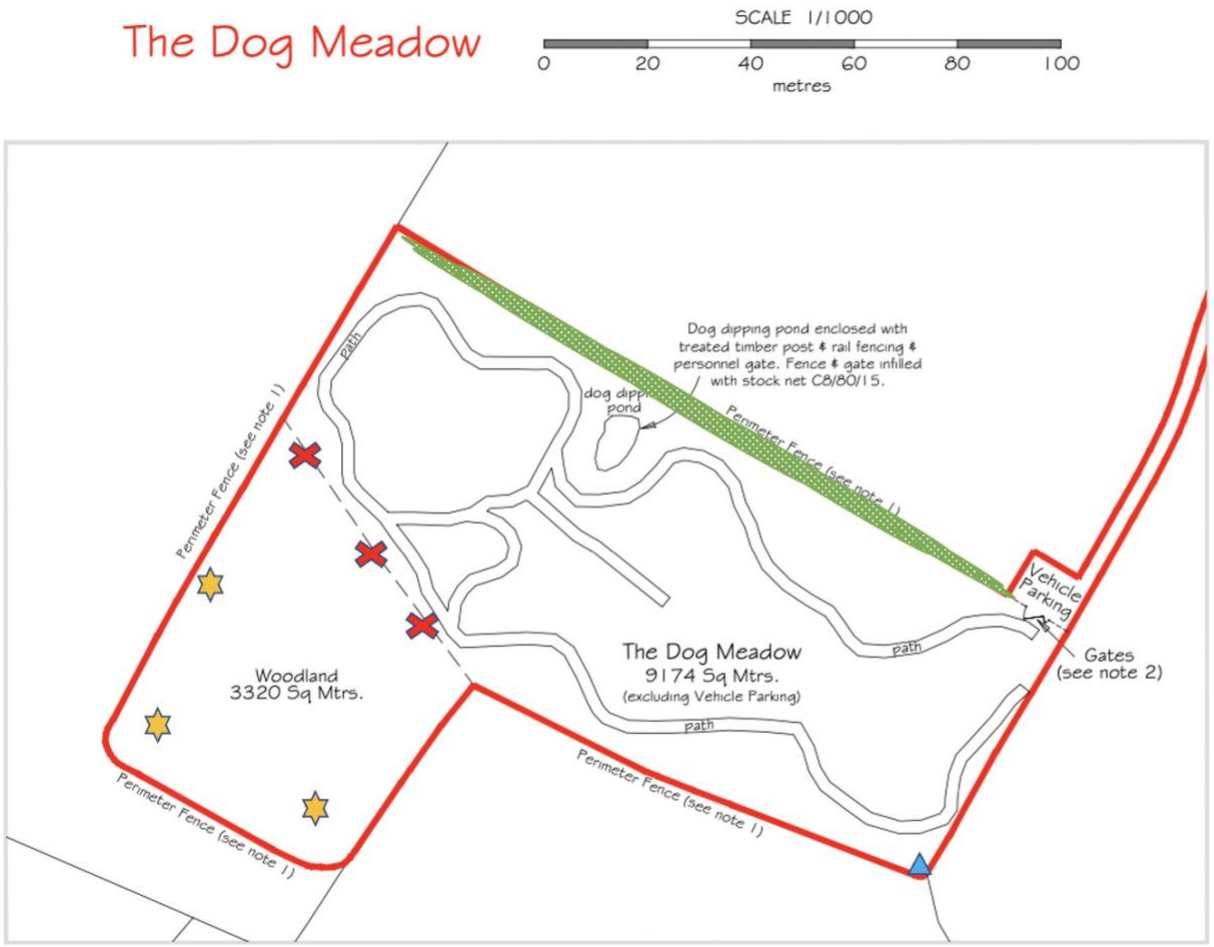
Appendix A - Site Plan



Appendix B – Ecological Enhancement Plans



Appendix B – Ecological Enhancement Plans



Site boundary

Low level native shrubs to enhance existing retained hedgerow

Bat boxes – mature trees

Bird box – mature trees

Log pile

Project: Slaughterford Farm

Title: Ecological Enhancement Plan

Drawing Number: Figure 2

Date: 19th February 2024

Deepdene Ecology Ltd

Appendix C – Log pile specification

