

Preliminary Ecological Appraisal

Bat and Protected Species Survey & Bat Emergence Survey



Whitecross Farm Development
Whitecross Gardens
Seaton
EX12 2DQ

Planning Reference:		Report Reference:	230425 rev00
Client:	Fiona Gardener		
Architect/Agent:	Hendriksen Chartered Architect		
Survey Date/s:	24 th May, 12 th July, 25 th July & 17 th August 2023		
Report Date:	September 2023	OS Grid Ref:	SY 24748 91041
Report Author:	Willow West BSc, MScR		
Approved By:	William Corbett BSc (Hons), MRes		
Surveyors & Licence N°:	William Corbett	Bats: 2022-10213-CL18-BAT (WML-A34 Level 2)	
Additional Surveyor/s:	Willow West, Laura Davies, Jude Dinham-Price & Megan Hobbs		

CONTENTS

Summary	2
Introduction	6
Survey Methods	9
Survey Results	11
Discussion	21
Recommendations	26
References	29
Appendices	30

DISCLAIMER

It should be noted that this report is context-specific. If any changes are made to the brief and/or the development proposal Ecologic Consultant Ecologists LLP must be informed, as amendments may be required. The information provided in this report must be reviewed and updated in the time following twelve months from the date of survey. This report (including any enclosures and attachments) has been prepared for the exclusive use and benefit of the addressee(s) and solely for the purpose for which it is provided. Unless we provide express prior written consent, no part of this report should be reproduced, distributed or communicated to any third party. Ecologic Consultant Ecologists LLP do not accept any liability if this report is used for an alternative purpose from which it is intended, nor to any third party in respect of this report.

EcoLogic Consultant Ecologists LLP, Zone 3, Wrentham Business Centre, Prospect Park, Exeter, EX4 6NA

admin@ecologic-consultants.co.uk Tel: 01392 433016 www.ecologic-consultants.co.uk

1.1 Introduction

It is proposed to conduct the following works at Whitecross Gardens, Seaton, Devon, EX12 2DQ:

- Demolition of the existing bungalow, garage and shed; and,
- Construction of four new dwellings, driveways, car ports and landscaping.

1.2 Site Description & Ecology

The survey site comprised a derelict bungalow set in surrounding gardens approximately (0.14 ha) with remains of a fire damaged garage, shed and a concrete parking area. The site has potential for badger (foraging and dispersal), bats (foraging, dispersal and roosting), birds (foraging and nesting), common amphibians (scrub), reptiles (scrub) and invertebrates.

1.3 Impacts

The proposed works will remove the majority of the modified grasslands and scrub, as well as all the buildings and hardstanding. The walnut tree is to stay in situ and new gardens with associated planting will be introduced with the new plans.

1.3.1 Roosting Bats - Bungalow

The combined survey results identified that the bungalow is used by common pipistrelle bats (peak count: 1) and soprano pipistrelle bats (peak count: 1) as day roosts.

It will be necessary to apply and obtain a standard European Protected Species Licence (EPSL) from Natural England under the conservation (Natural Habitats, &c) (Amendments) 2010 Regulations, to legally allow the proposed demolition works. In order to apply for the licence, it will be required to successfully obtain full planning permission from the Local Planning Authority (LPA).

With specific reference to the identified roosts, the EPSL could be facilitated through registration of the site to the Bat Mitigation Class Licence. The Bat Mitigation Class Licence can only be applied for within 3 months to 3 weeks of the proposed commencement of works, taking approximately 2 weeks to process.

Mitigation and compensatory measures will be required to include:

- Commencement of works relating to the bat roost/s with ecological supervision, required to safely exclude and remove any roosting bats from the working area/s;
- Positioning of temporary bat roosting provisions, consisting of at least two bat boxes positioned upon suitable building/s and/or tree/s on the property. These bat boxes would be used to relocate any non-horseshoe bats found during the works;
- An inbuilt bat box will need to be incorporated within each dwelling (four in total; Appendix 4); and,
- The bat roosting provisions, bat access points, and corresponding flight lines linking the provisions to the surrounding environment, must not be illuminated by external lighting (see 6.1.2 for further detail).

1.3.2 Further Recommendations

- A sensitive lighting plan will be required to avoid disturbing the nocturnal behavior of bats;
- Any excavations or pipework, which are to remain open overnight, should be fenced or covered;
- The grassland will be maintained at a short sward to discourage use by amphibians and reptiles;
- Sensitive clearance of vegetation and demolition of the bungalow, timed outside of the bird nesting season, or following a nesting bird check; and,
- Incorporation of wildlife provisions to increase the opportunities for wildlife on site.

1.4 Conclusion

The proposed development represents a negative ecological impact through removal of habitat for amphibians, reptiles, birds, badgers and bats. Through formulation and implementation of ecology mitigation, compensation and enhancement measures, the proposal is considered to represent a positive biodiversity impact.

Local Planning Authority Check List & Biodiversity Budget

Habitat, Species & Feature	Impact	Specific further survey:		Precautionary recommendations, avoidance, mitigation, compensation &/or enhancement	Biodiversity Budget: + or –
		required	complete		
Modified grassland & scrub habitat	Removal of modified grassland and a limited extent of bramble scrub	No	N/A	A native hedgerow will be planted along the boundaries creating additional habitat	Neutral
Badger & small mammals	Potential for any open excavations to cause entrapment and/or injury of species, such as badger, hedgehog etc.	No	N/A	Any excavations or pipework, which are to remain open overnight, should be fenced or covered to prevent potential entrapment and/ or injury of species such as badger, hedgehog etc.	Neutral
Birds	The development will remove general foraging habitat and nesting habitat for birds	No	N/A	An inbuilt bird nesting provision will need to be incorporated within each dwelling (four in total; Appendix 5) A native hedgerow will be planted along the boundaries creating additional habitat Scrub removal and building demolition should be undertaken outside of the nesting bird season, or care will need to be taken to ensure no active bird nests are damaged or disturbed by the works	Neutral
Bats	Demolition of the bungalow will destroy a common pipistrelle day roost and a soprano pipistrelle day roost The development will also remove a limited extent of habitat for feeding bats Retained and created habitats may be susceptible to artificial lighting	Yes	Yes	It will be necessary to apply and obtain a Bat Mitigation Class Licence from Natural England under the conservation (Natural Habitats, &c) (Amendments) 2017 Regulations, to legally allow the demolition works to proceed. Subsequent mitigation & supervision will be required, including: <ul style="list-style-type: none"> • Commencement of works relating to the bat roost/s with ecological supervision, required to safely exclude and remove any roosting bats from the working area/s; • Positioning of temporary bat roosting provisions, consisting of at least two bat boxes positioned upon suitable building/s and/or tree/s on the property. These bat boxes would be used to relocate any non-horseshoe bats found during the works; • An inbuilt bat box will need to be incorporated within each dwelling (four in total; Appendix 4); • The bat roosting provisions, bat access points, and corresponding flight lines linking the provisions to the surrounding environment, must not be illuminated by external lighting, therefore a sensitive lighting plan will need to be formulated. A native hedgerow will be planted along the boundaries creating additional habitat	Neutral

EcoLogic Consultant Ecologists LLP, Zone 3, Wrentham Business Centre, Prospect Park, Exeter, EX4 6NA

admin@ecologic-consultants.co.uk Tel: 01392 433016 www.ecologic-consultants.co.uk

Habitat, Species & Feature	Impact	Specific further survey:		Precautionary recommendations, avoidance, mitigation, compensation &/or enhancement	Biodiversity Budget: + or -
		required	complete		
Reptiles & Amphibians	Removal of a limited extent of bramble scrub and modified grassland	No	N/A	<ul style="list-style-type: none"> Maintenance of the grassland at a short sward prior to the works to discourage any reptiles species from using the habitat; <ul style="list-style-type: none"> Removal of the limited extent of scrub with hand tools; <ul style="list-style-type: none"> Creation of a habitat pile on site; and, Planting of a native species hedgerow on the boundaries. 	Neutral
Bee provisions	N/A	N/A	N/A	A bee brick will need to be incorporated within each dwelling (four in total; Appendix 6);	Positive

For further reference see:

- UK Habs Survey – Appendix 1;
- Mitigation & Constraints Plan – Appendix 2;
- Opportunities & Enhancement Plan – Appendix 3.

2.1 Proposal

It is proposed to conduct the following works at Whitecross Gardens, Seaton, Devon, EX12 2DQ:

- Demolition of the existing bungalow, garage and shed; and,
- Construction of four new dwellings, driveways, car ports and landscaping.

2.2 Survey Objectives

The Preliminary Ecological Appraisal (PEA) was undertaken to consider and assess the perceived ecological impacts associated with the proposal, including any perceived impacts to:

- Legally protected species or species of conservation concern;
- Legally protected habitats or habitat of conservation concern;
- Any statutory or non-statutory sites of conservation interest; and,
- Opportunities to provide biodiversity enhancement(s).

2.3 Site Description

Whitecross Gardens was located at the northeastern extent of the town of Seaton, Devon. It was immediately surrounded by residential dwellings and gardens. An area of local nature reserve lay approximately 100 m to the east, buffered by residential dwellings (Figure 2.1).

The survey site comprised a garden containing a derelict bungalow, garage and shed, with a concrete drive and parking area. The site was enclosed by Heras fencing on the post and wire fencing on the eastern, southern and southwestern boundaries and wooden fencing on the western and northern boundaries (Figure 2.1 & Appendix 1). The survey site was approximately 0.14 ha in size.



Figure 2.1. The survey site at Whitecross Gardens, Seaton (survey area outlined in red and the dwelling in yellow)

2.4 Building Descriptions

The bungalow was constructed from concrete block which had been externally rendered (Figure 2.2 & 2.3). Each gable end was clad with hanging concrete tiles. The pitched roof had a covering of interlocking concrete tiles and a skylight window on the southeastern elevation.

At the southwestern elevation, there were remains of a lean-to porch constructed from wood and plastic roofing sheets, which connected the bungalow to a concrete fabricated garage. The lean to and the garage had been damaged by a fire. To the northeast of the bungalow was a small wooden shed, in a state of disrepair.



Figure 2.2. The southeastern elevation of the bungalow, shed (right) and garage (left)



Figure 2.3. The northeastern gable and northwestern elevation of the bungalow and shed

DRAFT

3.1 Preliminary Ecological Appraisal

3.1.1 Scope of the Assessment

The zone of influence covers the extent of the site, the site boundaries and areas directly adjacent to the site. The assessment considers designated sites, habitats, and species of importance for biodiversity conservation and protected species.

3.1.2 Desk Study

A desk-based review was undertaken for the proposed alterations to the site and its surroundings comprising of ecological data obtained from web-based resources including:

- Review of the Government's (DEFRA) mapping website MAGIC (www.magic.gov.uk); and,
- Review of Devon County Council's Environment Viewer.

3.1.3 Field Survey

The field survey comprised a walkover assessment of the areas of the site using UK Habitat Classification System methodology (UKHabs, 2022). This is a standard technique designed for classifying and mapping British habitats in a consistent and unified way. Each habitat was assigned the appropriate alphanumeric code followed by any relevant secondary codes in accordance with UKHab Category Definitions V1-1 (Butcher *et al.*, 2020).

The site survey was undertaken on 24th May 2023 by William Corbett. All areas within the site were surveyed and assessed for indicators of ecological value, including the presence or signs of any protected or rare habitats and species.

3.2 Bat & Protected Species Survey

The survey comprised an external and internal inspection of the garage and shed, and an external inspection of the bungalow, conducted on the 24th May 2023 by William Corbett, with the aid of head and hand-held torches, an endoscope, close-range binoculars, an extendable ladder and a digital camera.

The aim of the survey was to assess levels of use by bats through the presence of actual animals or their field signs, such as droppings, insect prey remains and/or urine staining, and the potential suitability of the building for roosting.

The presence of other protected species, notably nesting birds and barn owl/s, was also investigated, including the presence and behaviour of any actual animals or their field signs, such as whitewash, pellets and or nest debris.

3.3 Bat Emergence Survey

The bat emergence surveys consisted of three evening survey visits of the bungalow undertaken on the following dates:

- 12th July 2023 by Willow West and Jude Dinham Price, and,
- 25th July 2023 by Willow West and Laura Davies, and,
- 17th August 2023 by Megan Hobbs and Jude Dinham-Price.

The surveys were undertaken from 15 minutes prior to sunset until 1½ hours after sunset. The surveyors were positioned to cover all aspects of the building, with particular emphasis placed on the areas which had potential to be utilised by emerging bats. When a bat was detected, it was identified with its position and activity noted on a field base plan. The time and position of each bat was recorded, along with its direction of flight (light permitting) and whether the bat was emerging, foraging or commuting. Cloud cover, wind strength, precipitation, humidity, and temperature were all recorded at the start and completion of the survey,

The surveyors were each equipped with a bat detector and recording device, comprising of a Peersonic RPA3 bat detector with internal recording capability. To aid species identification, all recordings were analysed using Kaleidoscope Viewer (ver4.5.5), BatSound (ver3.3 and/or ver4.03) and/or Anlook (ver3.8) computer software.

4.1 Designated Sites of Nature Conservation Interest

4.1.1 Statutory Designated Sites

The desk-based review identified seven statutory designated sites for nature conservation within 2 km of the site. These were, Seaton Marshes Local Nature Reserve (LNR) 100 m east, Colyford Common (LNR) 885 m northeast, East Devon Area of Outstanding Natural Beauty (AONB) 1425 m southeast, Axmouth to Lyme Regis Under Cliffs Site of Special Scientific Interest (SSSI) 1590 m southeast, Holyford Woods (LNR) 1663 m northwest, Sidmouth to Beer (SSSI) 1845 m southwest, Spring Head Axmouth (SSSI) 1941 m east.

4.1.2 Non-Statutory Designated Sites

The desk-based review identified one non-statutory designated sites for nature conservation within 2 km of the site. This was the East Devon Heritage Coast, approximately 550 m east and 1875 m southwest of the site.

4.2 Species Desk Study

4.2.1 Bats

The desk-based review identified no EPSL records for bats within 1 km of the site. The closest European Protected Species Licence (EPSL) for bats was recorded 1165 m to the north of the survey site.

4.2.2 Dormice

The desk-based review identified no records for dormouse (*Muscardinus avellanarius*) within 1 km of the site. Although, an EPSL for dormice was noted in the village of Colyton, approximately 2.4 km north of the survey site.

4.2.3 Great Crested Newts

The desk-based review identified no records for great crested newts (*Triturus cristatus*), within 1 km of the site. Although, an EPSL for great crested newts was noted in the village of Colyton, approximately 2.4 km north of the survey site.

The site is located within a great crested newt consultation zone. These zones extend for 5 km surrounding known records for great crested newt.

4.3 Field Survey

Table 4.1. Environmental conditions on 24th May 2023

Temperature (°C)	Wind Speed (Beaufort Scale)	Cloud cover (%)	Precipitation	Sunset time
18	1	10	None	N/A

Constraints on the survey:

The UK Habs survey does not necessarily record plants or animals that may appear on the site at other times of the year and were therefore not evident at the time of the survey.

4.3.1 Habitats

The survey area at Whitecross Gardens comprised of a derelict bungalow, burnt down garage, hard standing, shed, and with associated garden, driveway, parking area and an access gate. The garden comprised modified grassland with scattered mature trees and bramble scrub. (Figure 2.1 & Appendix 1). The survey site was approximately 0.14 ha in size.

The garden at Whitecross Gardens comprised over half of the survey site. It predominantly comprised of modified grassland which had grown to a tall, tussocky sward (g4, 128, 519) at the northern and eastern extent (Figure 4.1). A full list of the species present are included in Appendix 7.



Figure 4.1. The modified grassland area at the eastern extent of the site

At the south and western extent of the survey site (Figure 4.2) the modified grassland (g4, 519) had been kept to a shorter sward height. A full list of the species present are included in Appendix 7.



Figure 4.2. Modified grassland at the southern extent of the site

An area of dense bramble scrub (h3d, 519), dominated by bramble, was located at the western corner of the site (Figure 4.3). A full list of the species present are included in Appendix 7.



Figure 4.3. Bramble scrub at the southwestern extent of the site

A concrete driveway, leading onto an area of hardstanding and parking (u1b, 519) was present at the western extent of the site (Figure 4.4 & 4.5). The driveway and hardstanding/parking were not maintained and had patches of vegetations growing through the concrete. A full list of the species present are included in Appendix 7.



Figure 4.4. The driveway and entrance gate at the western extent



Figure 4.5. Hardstanding/parking at the western extent

A small wooden shed was located at the northern extent of the site and was in a state of disrepair, the roof partially collapsed and ivy growing through it (Figure 4.6). To the southern extent was a former garage and lean-to which had been damaged by fire and overgrown by vegetation (Figure 4.7). A full list of the species present is included in table Appendix 7.



Figure 4.6. Shed at the northern extent



Figure 4.7. Burnt down garage at the southern extent

There were three mature trees on site. Two ash trees which were growing directly adjacent to the bungalow, which have since been removed (Figure 4.8). The walnut tree, to the north of the entrance gate (Figure 4.9) is due to be retained.



Figure 4.8. Mature ash trees, which have been removed since the initial survey



Figure 4.9. Mature walnut tree, to be retained

4.4 Species

4.4.1 Amphibians

The site is located within a great crested newt consultation zone. These zones extend for 5 km surrounding known records for great crested newt.

Due to the intervening land use and lack of possible breeding pond adjacent to the site, it is considered that great crested newt is not present on site.

The grassland and limited extent of scrub would represent suitable habitat for common amphibian species.

4.4.2 Badger

There was no evidence of badger such as foraging marks or tracks evident at the time of the survey, and no setts were present within or in the immediate surroundings to the survey site. The surrounding habitat is suitable for badgers and this species may traverse the site when foraging or commuting.

4.4.3 Bats

The hedgerows provide foraging resources and dispersal routes for bats commuting through the landscape.

See Section 4.6 for consideration of bats roosting in association with the site buildings and trees.

4.4.4 Birds

The grassland, limited extent of scrub and trees will provide suitable foraging habitat on-site for bird species. The trees and scrub are likely to provide nesting opportunities for birds.

4.4.5 Dormice

The desk-based review identified no records for dormouse (*Muscardinus avellanarius*) within 1 km of the site.

The lack of hedgerows on-site and lack of connectivity to suitable habitat make it unlikely that dormice are present at the site.

4.4.6 Reptiles

The grassland and limited extent of scrub provide suitable habitat for common reptiles such as slow-worm, grass snake and common lizard (*Zootoca vivipara*).

4.4.7 Invertebrates

The grassland, scrub and trees provide suitable habitat on site for invertebrates.

4.4.8 Non-Native Invasive Species

There were no non-native invasive species, listed on Schedule 9 of the Wildlife and Countryside Act 1981, identified on site.

4.5 The Bat & Protected Species Survey

Table 4.2. Environmental conditions on 24th May 2023

Temperature (°C)	Wind Speed (Beaufort Scale)	Cloud cover (%)	Precipitation	Sunset time
18	1	10	None	N/A

Constraints on the survey:

The building was derelict and structurally unsound due to fire damage; therefore, the loft void was not accessed due to safety.

4.5.1 Bats

The bungalow was in a state of disrepair and there were numerous access points suitable for use by bats. These included but were not limited to, cracked roofing tile (Figures 4.10 & 4.11), gaps in the flashing of the skylight window (Figure 4.12) and damaged soffit boards (Figure 4.13).

The garage, shed and trees on-site were considered to have 'negligible' roosting potential for bats.



Figure 4.10 Broken tile on the southeastern elevation of the bungalow



Figure 4.11. Broken tiles on the southeastern elevation of the bungalow



Figure 4.12. Gap under the flashing of the skylight on the southeastern elevation



Figure 4.13. Gap within the damaged soffit on the southern corner of the dwelling

4.5.2 Nesting Birds

There were several dead pigeons within the dwelling, suggesting the building may be used as a roost. Herring gulls were also observed nesting on the roof, close to the skylight window.

4.6 The Bat Emergence Survey

The bat emergence survey comprised of three survey visits undertaken on the 12th July, 25th July and 17th August 2023. Weather conditions recorded at the start and end of the survey are presented in Table 4.3.

Table 4.3. Timings and environmental conditions relating to the bat emergence survey

Date & Times	Start/End	Temp (°C)	Wind Speed (Beaufort Scale)	Cloud Cover %	Precipitation	Humidity %
12 th July 2023 Sunset: 21:22	Start of Survey	17	1	64	None	74
Start Time: 21:01 End Time: 22:52	End of Survey	15	1	45	None	84
25 th July 2023 Sunset: 21:08	Start of Survey	18	1	0	None	63
Start Time: 20:45 End Time: 22:38	End of Survey	14	1	30	None	74
17 th August 2023 Sunset: 20:25	Start of Survey	20	5	85	None	71
Start Time: 20:10 End Time: 21:55	End of Survey	19	4	85	None	76

4.6.1 The Bat Emergence Survey Visit – 12th July 2023

A total of four emergences by common pipistrelle and soprano pipistrelle bats were observed during the survey (Table 4.4). A common pipistrelle emerged from under a cracked tile on the ridge of the roof, a soprano pipistrelle emerged from the southern gable end of the dwelling, and one common pipistrelle and one soprano pipistrelle emerged from the wooden shed at the northern end of the dwelling.

Table 4.4: Bat emergences on 12th July 2023 from Whitecross Gardens

Time	Species	Number	Emergence Location
21:48	Common pipistrelle	1	From roof ridge tiles, centrally, southeastern elevation
21:55	Soprano pipistrelle	1	From the southwestern gable end

Additional Bat Activity

There was moderate bat activity during the survey, predominantly of foraging passes of common pipistrelles, and multiple passes of soprano pipistrelles, serotine (*Eptesicus serotinus*), noctule (*Nyctalus noctule*), *Myotis* species and long eared species (*Plecotus* sp.).

4.6.2 The Bat Emergence Survey Visit – 25th July 2023

A total of two emergences by common pipistrelle and soprano pipistrelle were observed during the survey (Table 4.5).

Table 4.5: Bat emergences on 25th July 2023 from Whitecross Gardens

Time	Species	Number	Emergence Location
21:36	Common pipistrelle	1	From roof ridge tiles, southeastern elevation
21:46	Soprano pipistrelle	1	From the northeastern gable end

Additional Bat Activity

There was moderate bat activity during the survey, predominantly of foraging passes of common pipistrelles, and multiple passes of soprano pipistrelles, serotine, noctule and *Myotis* species.

4.6.3 The Bat Emergence Survey Visit – 17th August 2023

There were no bats observed emerging from the building.

Additional Bat Activity

There was moderate bat activity during the survey, predominantly of foraging passes of soprano pipistrelles, and passes of common pipistrelles, serotine, noctule, *Myotis* species and long eared species.

5.1 Proposed Development

It is proposed to conduct the following works at Whitecross Gardens, Seaton, Devon, EX12 2DQ:

- Demolition of the existing bungalow, garage and shed; and,
- Construction of four new dwellings, car ports, driveways and landscaping.

5.2 Statutory & Non-statutory Designated Sites

There were seven statutory designated sites for nature conservation within 2 km of the site. The closest being Seaton Marshes Local Nature Reserve (LNR) 100 m to the east.

It is considered that the proposal will not negatively impact the LNR and other designated sites due to the relatively small scale of the proposed development and because of the existence of residential dwellings directly between the site and the designated sites.

5.3 Amphibians

5.3.1 Common Amphibians

The grassland and bramble scrub on site are considered to provide suitable terrestrial habitat for amphibian species, such as common frog (*Rana temporaria*) and common toad (*Bufo bufo*).

Common toad is listed upon the UK Biodiversity Action Plan (UK BAP) and must be considered through the planning process. This and further species of amphibian may be considered through the Natural Environment & Rural Communities Act (NERC) 2006, with public bodies, including LPAs, minded to ensure due regard to the conservation of biodiversity of such species. Such considerations may seek to protect, re-establish or create habitat suitable for amphibians, post-development.

It is understood that a native species hedgerow will be re-established along the entirety of the boundary.

Precautionary measures should be employed to ensure no amphibians are harmed or injured during the construction period of the development.

Mitigation and compensation measures for common amphibian species are likely to require:

- Maintenance of the grassland at a short sward prior to the works to discourage any common amphibian species from using the habitat;
- Removal of the limited extent of scrub with hand tools;
- Creation of a habitat pile on site; and,
- Planting of a native species hedgerow on the boundaries.

5.3.2 Great Crested Newt

The desk-based review identified an EPSL for great crested newts in the village of Colyton approximately 2.4 km north of the survey site.

The site is located within a great crested newt consultation zone. These zones extend for 5 km surrounding known records for great crested newt.

The presence of great crested newt is associated with the presence of pond/s within 500 m, which form aquatic breeding habitat, therefore great crested newts have relatively 'localised' distributions.

The nearest pond to site is located 270 m to the southeast. However, the intervening land comprises residential housing with little ecological connectivity between the pond and the site.

With the intervening residential housing separating the pond and limited suitability of the site, it is considered that great crested newts are unlikely to be present on site or be impacted by the proposal.

5.4 Badger

The grassland and scrubland provide foraging resources for badgers. There was no evidence of badger present on site. However, it is considered that badger/s are likely to frequent the site when dispersing and/or foraging.

Badgers are protected by the Protection of Badgers Act 1992 and the Wildlife and Countryside Act 1981 (as amended), Schedule 6. Under the Wildlife and Countryside Act, it is illegal to intentionally kill, capture, injure or ill-treat any badger.

Precautionary measures should be employed to ensure no badgers are harmed or injured during the construction period of the development including, any excavations

which are to remain open overnight, should be fenced or covered to prevent potential entrapment and/or injury of species such as badger, hedgehog etc.

5.5 Bats

The grassland and trees provide foraging resources and dispersal routes for bats commuting through the landscape.

As a signatory to the Bonn Convention (Agreement on the Conservation of Bats in Europe) the UK has committed to protecting bat habitats, which necessitates the identification and protection from damage or disturbance of feeding areas and commuting routes.

It is understood that some of the trees will be retained and that a native species hedgerow will be established along the boundaries.

There were no trees on-site with potential bat roosting features and there were no bats recorded in association with the garage and shed; therefore, it is considered that the garage, shed and trees do not support roosting bats.

The combined survey results identified that the bungalow is used by common pipistrelle bats (peak count: 1) and soprano pipistrelle bats (peak count: 1) as day roosts.

It is understood that the proposed demolition works to the bungalow could cause disturbance or injury to any bats present at the time of the works.

Mitigation and compensation measures are to include:

- Protection of retained habitats during and post-development;
- An EPSL will be required for the demolition of the bungalow, including on-site supervision by a suitably qualified Ecologist during the works and appropriate mitigation post-development (see Section 6.1.1 for further details);
- Formulation of a sensitive lighting plan;
- Planting of a native species hedgerow along the boundaries; and,
- Installation of inbuilt bat roosting provisions within the new dwellings (four in total; Appendix 4).

5.6 Birds

The grassland and trees will provide suitable foraging habitat on-site for bird species. The hedgerows are likely to provide nesting opportunities for bird species.

All birds, their nests and eggs are protected under the Wildlife and Countryside Act 1981 (as amended).

It is understood that the hedgerows will be retained and that a native species hedgerow will be re-established along the entirety of the northern boundary.

Mitigation and compensation measures are to include/likely to require:

- Sensitive clearance of vegetation to be removed and demolition of the bungalow, avoiding works during the bird nesting season or following a bird nesting check (with combined consideration/restrictions for bats, amphibians and reptiles);
- Protection of retained habitats during and post-development;
- Planting of a native species hedgerow on boundaries; and,
- Installation of inbuilt bird nesting provisions within each of the new dwellings (four in total; Appendix 5).

5.7 Dormice

The habitat on site is not particularly suitable for dormouse and it is not well connected to more suitable habitat. It is therefore considered unlikely that dormice may inhabit the bramble scrub on site. Care should still be taken when clearing areas of bramble scrub and works stopped immediately if dormouse are found to be present.

Dormice are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2019. This makes it illegal to:

- intentionally kill, injure, take, possess, sell or disturb a dormouse; and,
- intentionally or recklessly damage, destroy or obstruct their place of shelter or protection (i.e. dormouse habitat).

5.8 Reptiles

The bramble scrub and grassland provide suitable habitat for common reptiles such as slow-worm and common lizard.

Reptiles are protected against intentional killing and injury under the Wildlife and Countryside Act 1981 (as amended). Natural England states that activities such as site investigations and movements of machinery may breach this legislation by causing death or injury to reptiles (English Nature, 2004).

Mitigation and compensation measures are to include/likely to require:

- Maintenance of the grassland at a short sward prior to the works to discourage any reptiles species from using the habitat;
- Removal of the limited extent of scrub with hand tools;
- Creation of a habitat pile on site; and,
- Planting of a native species hedgerow on the boundaries.

DRAFT

6.1 Recommendations for Avoidance/Mitigation of Ecological Impacts

6.1.1 Roosting Bats - Bungalow

The combined survey results identified that the bungalow is used by common pipistrelle bats (peak count: 1) and soprano pipistrelle bats (peak count: 1) as day roosts.

Legislation

Bats are protected under several articles of UK and European legislation, notably the Wildlife & Countryside Act 1981, the CroW Act 2000, and the Conservation (Natural Habitats, &c) (Amendments) 2017 Regulations [referred to as HR]. Under this legislation, it is illegal to:

- Intentionally or deliberately kill or injure bats;
- Deliberately disturb bats;
- Recklessly disturb roosting bats or obstruct access to their roosts; and,
- Damage or destroy bat roosts.

Where works are proposed that would result in offences being committed, a European Protected Species Licence (EPSL) is required under the Habitats Regulations (2017).

Implications of the Proposal

It will be necessary to apply and obtain a standard European Protected Species Licence (EPSL) from Natural England under the conservation (Natural Habitats, &c) (Amendments) 2010 Regulations, to legally allow the proposed works. In order to apply for the licence, it will be required to successfully obtain full planning permission from the Local Planning Authority (LPA).

With specific reference to the identified roosts, the EPSL could be facilitated through registration of the site to the Bat Mitigation Class Licence. The Bat Mitigation Class Licence can only be applied for within 3 months to 3 weeks of the proposed commencement of works, taking approximately 2 weeks to process.

Mitigation & Compensation for Bat Species

Mitigation and compensatory measures will be required to include:

- Commencement of works relating to the bat roost/s with ecological supervision, required to safely exclude and remove any roosting bats from the working area/s;
- Positioning of temporary bat roosting provisions, consisting of at least two bat boxes positioned upon suitable building/s and/or tree/s on the property. These bat boxes would be used to relocate any non-horseshoe bats found during the works;
- An inbuilt bat box will need to be incorporated within each dwelling (four in total; Appendix 4); and,
- The bat roosting provisions, bat access points, and corresponding flight lines linking the provisions to the surrounding environment, must not be illuminated by external lighting (see 6.1.2 for further detail).

6.1.2 Lighting

A sensitive lighting plan will need to be formulated, specifically avoiding illuminating any created bat roosting provisions, flight lines, proposed hedgerow habitats and any areas beyond the site. This will be required to potentially avoid deterring nocturnal activity of feeding and commuting bats.

6.1.3 Site Excavations

As a precautionary measure during the construction works, any excavations or pipework, which are to remain open overnight, should be fenced or covered to prevent potential entrapment and/or injury of species such as badger, hedgehog etc.

6.1.4 Grassland Management

The grassland should continue be maintained with a short grassland sward prior to construction. This is to discourage any establishment of amphibians or reptiles within the proposed development area prior to the works.

6.1.5 Nesting Birds

Sensitive clearance of vegetation to be removed and demolition of the bungalow, avoiding works during the bird nesting season or following a bird nesting check (with combined consideration/restrictions for bats, amphibians and reptiles).

6.2 Ecological Enhancements

The National Planning Policy Framework outlines the Government's commitment to minimise impacts on biodiversity and provide net gains in biodiversity where possible,

contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.

Therefore, in order for the development to result in a positive biodiversity impact, the development will need to include the following:

- An inbuilt bird nesting provision will need to be incorporated within each dwelling (four in total; Appendix 5);
- A bee brick will need to be incorporated within each dwelling (four in total; Appendix 6);
- Creation of a least one habitat pile consisting of logs, brash &/or grass cuttings 1 m², within a relatively undisturbed area of the site;
- Planting of a native species hedgerow on the boundaries; and,
- Any other new native planting should consist of trees and shrubs of local provenance.

6.3 Conclusion

The proposed development represents a potential negative ecological impact through removal of habitat and potential disturbance for amphibians, reptiles, birds, badgers and bats.

Through formulation and implementation of ecology mitigation, compensation and enhancement measures, the proposal is considered to represent a positive biodiversity impact.

REFERENCES

Battersby, J. (Edited and compiled; 2005). *UK Mammals: Species Status and Population Trends*. JNCC/Tracking Mammals Partnership 2005. ISBN 1-86107-568-5
<http://www.jncc.gov.uk/page-3311>

Collins, J. (2016). *Bat Surveys for Professional Ecologist: Good Practice Guidelines* (3rd ed.) The Bat Conservation Trust, London.

Countryside and Rights of Way Act 2000. HMSO

Conservation of Habitats & Species Regulations 2019. HMSO

DEFRA (n.d.). *Magic Maps*. Available at: <https://magic.defra.gov.uk/magicmap.aspx>

Amphibian and Reptile Conservation (ARC) and Amphibian and Reptile Groups of the UK (ARG UK). Record Pool. Available at: www.recordpool.org.uk

Natural England. Open Data Geoportal. Available at: <https://naturalengland-defra.opendata.arcgis.com/>

IEA (1995) *Guidelines for Baseline Ecological Assessment*. Institute of Environmental Assessment. E&FN Spon, An Imprint of Chapman and Hall. London.

Natural Environment and Rural Communities Act (2006)

UK Biodiversity Action Plan. www.ukbap.org/uk

Wildlife & Countryside Act 1981, as amended. HMSO

The Wild Mammals (Protection) Act 1996. HMSO

APPENDICES

- Appendix 1: UK Habitat Classification Map
- Appendix 2: Constraints Plan
- Appendix 3: Mitigation & Opportunities Plan
- Appendix 4: Examples of Inbuilt Bat Roosting Provisions
- Appendix 5: Examples of Bird Nesting Provisions
- Appendix 6: Bee Brick Provision

DRAFT





Lighting: A sensitive lighting plan will need to be formulated, specifically avoiding illuminating any created bat roosting provisions, flightlines (connecting roost to the surrounding environment) and any areas beyond the site.

Scrub & Tree removal: Scrub and tree removal should be undertaken outside of the nesting bird season, or care will need to be taken to ensure no active bird nests are damaged or disturbed by the works. The scrubland should be sensitively cleared with hand tools prior to the commencement of works to encourage dispersal of any birds, reptiles and amphibians away from the proposed working areas.

Bat Roosting Provisions: Positioning of temporary bat roosting provisions, consisting of at least two bat boxes positioned on suitable trees on the property.

Grassland Management: The amenity grassland should continue to be maintained with a short grassland sward prior to construction. This is to discourage any establishment of amphibians or reptiles within the proposed development area prior to the works.

Bat Licence: It will be necessary to apply for and obtain a Bat Mitigation Class Licence from Natural England under the conservation (Natural Habitats., &c) (Amendments) 2017 Regulations, to legally allow the demolition works to proceed. Subsequent mitigation and supervision will also be required.

Site excavations: As a precautionary measure during the construction works, any excavations or pipework, which are to remain open overnight, should be fenced or covered to prevent potential entrapment and/ or injury of species such as badger, hedgehog etc.

It is recommended care should be take during the excavation of any rabbit burrows. This is to reduce the risk of asphyxiation and/or crushing of any rabbits and other small mammals that may be present. This should be employed to help ensure no small mammals are harmed or injured during the construction period of the development.

Key

- Red line boundary
- UKHabs areas
- g4 - modified grassland
- u1b - developed land. sealed surface
- u1b5 - buildings
- h3d - bramble scrub

N
↑

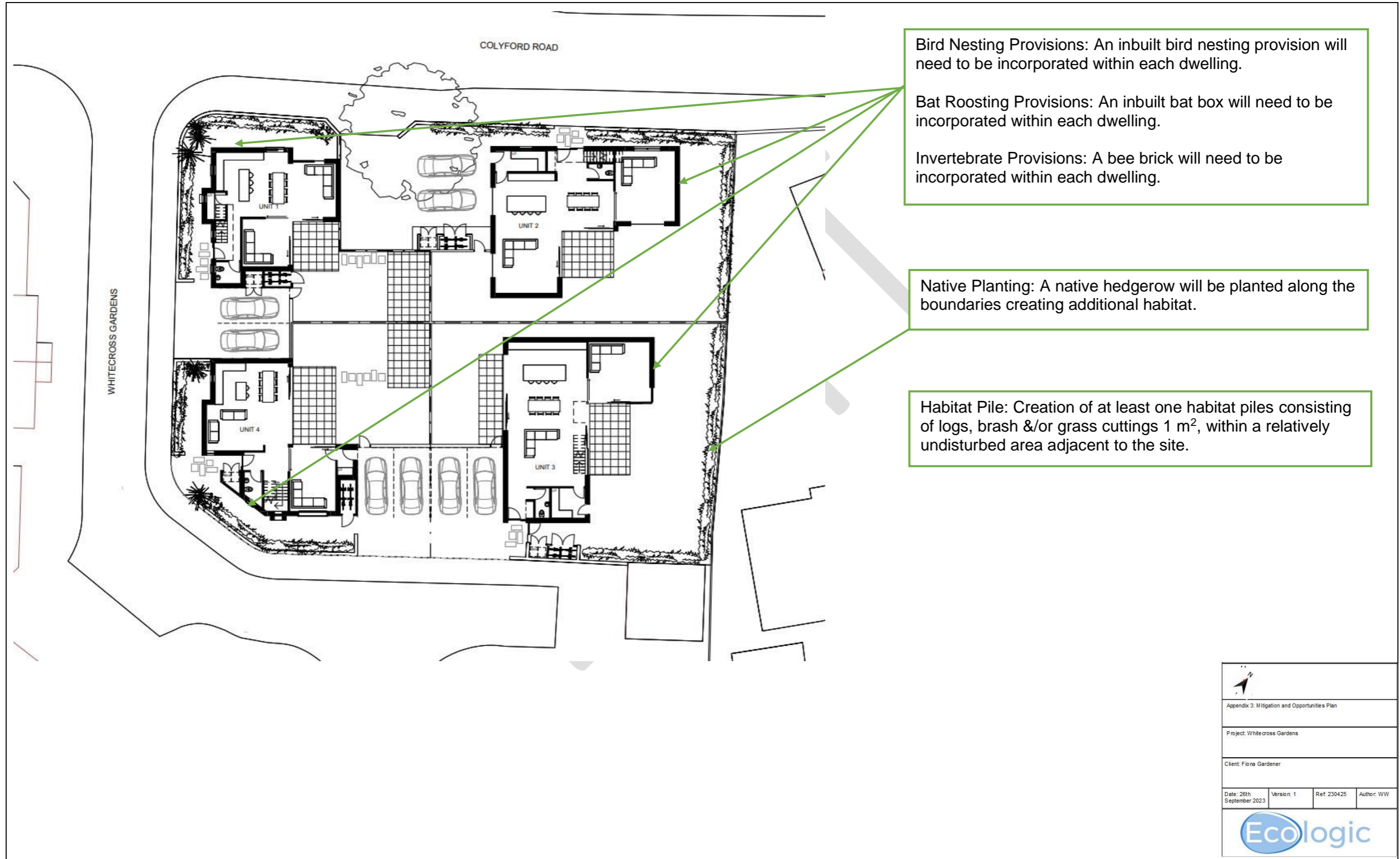
Appendix 2: Constraints Plan

Project: Whitecross Gardens

Client: Fiona Gardener

Date: 28th September 2023	Version: 1	Ref: 230425	Author: WW
---------------------------	------------	-------------	------------





Bird Nesting Provisions: An inbuilt bird nesting provision will need to be incorporated within each dwelling.

Bat Roosting Provisions: An inbuilt bat box will need to be incorporated within each dwelling.

Invertebrate Provisions: A bee brick will need to be incorporated within each dwelling.

Native Planting: A native hedgerow will be planted along the boundaries creating additional habitat.

Habitat Pile: Creation of at least one habitat piles consisting of logs, brash &/or grass cuttings 1 m², within a relatively undisturbed area adjacent to the site.

Appendix 3: Mitigation and Opportunities Plan			
Project: Whitecross Gardens			
Client: Fiona Gardener			
Date: 28th September 2023	Version: 1	Ref: 230425	Author: WW

Segovia Build-In Woodstone Bat Box

Material: Woodcrete

Width: 210 mm

Height: 500 mm

Depth: 170 mm

Entrance Width: 160 mm

Entrance Height: 25 mm

Position: Built into external wall, below eaves or at a minimum height of 3 m with the entrance face at the front, remaining exposed and visible. The sides can be removed and multiple boxes placed next to each other to create a larger roosting space



Vivara Pro Woodstone Bat Tube

Material: Woodstone

Width: 160 mm

Height: 400 mm

Depth: 220 mm

Entrance Width: 150 mm

Entrance Depth: 20 mm

Weight: 6 kg

Position: Within external walls in place of a standard block on a southerly aspect, beneath eaves or at a minimum height of 3 m



Green & Blue Bat Block

Material: Cast concrete (75% waste materials from Cornish China Clay Industry)

Width: 215 mm

Height: 440 mm

Depth: 120 mm

Position: Within external walls in place of a standard block on a southerly aspect, beneath eaves or at a minimum height of 3 m



WoodStone Build in Open Nest Box

Suitable for: robins, wrens and blackbirds.
Material: Woodstone
Height: 180 mm
Width: 220 mm
Depth: 180 mm
Weight: 4.2kg

Position: Within external walls, at a minimum height of 2 m

**Vivara Pro Estelle House Sparrow Terrace**

Suitable for: House sparrows and individual blue & great tits
Material: Woodstone

Height: 210 mm
Width: 290 mm
Depth: 160 mm
Weight: 7.5 kg

Position: Within external walls, at a minimum height of 2 m

**Schwegler Brick Nest Box (Type 24)**

Suitable for: House sparrows, great tits, blue tits and nuthatches
Material: Woodcrete

Height: 235 mm
Width: 180 mm
Depth: 180 mm
Weight: 2.8 kg

Position: Within external walls, at a minimum height of 2 m



Type 24

Bee Brick

Each bee brick includes nesting compartments for solitary nesting bees, including for egg laying and hibernation
<http://greenandbluebuild.co.uk/product/bee-brick/>

Height: 216 mm

Width: 105 mm

Depth: 65 mm

Position: Place the insect hotel in southerly facing location, which includes part or full sun, between 1 m to 2 m above ground level, and ideally facing garden or boundary habitats.



APPENDIX 7

SPECIES LIST

Common Name	Scientific Name
Annual meadow grass	<i>Poa annua</i>
Aquilegia sp	<i>Aquilegia sp</i>
Ash	<i>Fraxinus excelsior</i>
Barley	<i>Hordeum vulgare</i>
Barren brome	<i>Bromus sterilis</i>
Bird's-foot trefoil	<i>Lotus corniculatus</i>
Bramble	<i>Rubus fruticosus agg.</i>
Bristly oxtongue	<i>Helminthotheca echioides</i>
Broad Buckler Fern	<i>Dryopteris dilatata</i>
Broad-leaved dock	<i>Rumex obtusifolius</i>
Bush vetch	<i>Vicia sepium</i>
Cleavers	<i>Galium aparine</i>
Cock's foot	<i>Dactylis glomerata</i>
Common bent	<i>Agrostis capillaris</i>
Common Cornsalad	<i>Valerianella locusta</i>
Common daisy	<i>Bellis perennis</i>
Common hogweed	<i>Heracleum sphondylium</i>
Common mouse-ear	<i>Cerastium fontanum</i>
Common nettle	<i>Urtica dioica</i>
Common sorrel	<i>Rumex acetosa</i>
Common yarrow	<i>Achillea millefolium</i>
Cow parsley	<i>Anthriscus sylvestris</i>
Creeping buttercup	<i>Ranunculus repens</i>
Creeping yellow cress	<i>Rorippa sylvestris</i>
Curled dock	<i>Rumex crispus</i>
Cut-leaf cranesbill	<i>Geranium dissectum</i>
Dandelion	<i>Taraxacum officinale agg.</i>
Dipsacus sp	<i>Dipsacus sp</i>
False brome	<i>Brachypodium sylvaticum</i>
Fringed willowherb	<i>Epilobium ciliatum</i>
Garlic mustard	<i>Alliaria petiolata</i>
Great mullein	<i>Verbascum thapsus</i>
Ground ivy	<i>Glechoma hederacea</i>
Heath bedstraw	<i>Galium saxatile</i>
Herb robert	<i>Geranium robertianum</i>
Leontodon sp	<i>Leontodon sp</i>
Lesser stitchwort	<i>Stellaria graminea</i>
Myosotis sp	<i>Myosotis sp</i>
Perennial ryegrass	<i>Lolium perenne</i>
Red campion	<i>Silene dioica</i>
Red clover	<i>Trifolium pratense</i>
Red deadnettle	<i>Lamium purpureum</i>
Red fescue	<i>Festuca rubra</i>
Ribwort plantain	<i>Plantago lanceolata</i>
Scarlet pimpernel	<i>Anagallis arvensis</i>
Shining cranesbill	<i>Geranium lucidum</i>
Soft brome	<i>Bromus hordeaceus</i>
Soft rush	<i>Juncus effusus</i>
Spear thistle	<i>Cirsium vulgare</i>

Taraxacum sp	<i>Taraxacum sp</i>
White clover	<i>Repens trifolium</i>
Wild lettuce	<i>Lactuca virosa</i>
Yorkshire-fog	<i>Holcus lanatus</i>