



**Preliminary Ecological
Appraisal**

Tess Square and Butts Close
Hybrid Scheme, Marnhull

July 2023

Preliminary Ecological Appraisal

Tess Square and Butts Close Hybrid Scheme,

Marnhull

12/07/2023

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Non-technical Summary

Phlorum Ltd was commissioned by Chapman Lily Planning to undertake a Preliminary Ecological Appraisal for the Tess Square and Butts Close Hybrid Scheme, which was carried out at land off Church Hill and Butts Close, Marnhull on the 4th May 2023, in order to determine whether any ecological constraints could affect the proposed works for the site.

Current proposals are for a commercial centre at land off Church Hill, to be known as Tess Square, and a residential development at land off Butts Close, to be known as Butts Close. The survey area extended over approximately 13.5 hectares (ha).

The main findings of the surveys are as follows:

-  The site is not subject to any statutory or non-statutory site designations. The closest statutory site is Butts Pond Meadows, Sturminster Newton Local Nature Reserve, located 3.6km to the south.
-  The site comprised buildings (u1b5), developed land; sealed surface (u1b), cereal crop (c1c), modified grassland (g4), ruderal/ephemeral (c 17 and s 17), fen marsh and swamp (f2), hedgerow (h2a), hedgerow with trees (h2a 190), scattered trees (c 11 and g 11), other rivers and streams (r2b), and bramble scrub (h3d).
-  It is recommended that targeted surveys in respect to bats and reptiles are carried out.
-  It is recommended that a District Level License (DLL) is obtained with respect to great crested newts.
-  In addition, a precautionary approach to works in respect to breeding birds, badgers, hazel dormice, water voles, hedgehogs, and stag beetles is recommended to minimise any adverse impacts on these species groups.

Further information on precautionary working practices and additional surveys together with recommended mitigation and enhancement measures are discussed in Section 5.

1. Introduction

Background

- 1.1 Phlorum Ltd has been commissioned by Chapman Lily Planning to undertake a Preliminary Ecological Appraisal, to inform the potential ecological constraints of proposed future development of land off Church Hill and Butts Close, Marnhull, Sturminster Newton (hereafter referred to as “the site”).
- 1.2 The purpose of the Preliminary Ecological Appraisal was:
 - to identify the major habitats present;
 - to identify the potential for any legally protected species to be present; and
 - to recommend any additional ecological surveys, if required.
- 1.3 As part of the assessment, a desktop review and a site visit were carried out. The results of which were used to assess the nature conservation importance of the site and the potential of the site to support protected species.
- 1.4 This report has been compiled in accordance with current guidelines (British Standard 42020:2013 Biodiversity. Code of Practice for Planning and Development, 2013 and CIEEM, 2017 and 2018).
- 1.5 It is understood that proposals are for a commercial centre at land off Church Hill, to be known as Tess Square, and for a residential development at land off Butts Close, to be known as Butts Close.

Site Location

- 1.6 The site is situated in a rural location in the village of Marnhull, Sturminster Newton, and predominantly comprises agricultural fields. The site area is split across two locations, separated by New Street and its associated properties. The northern site area (for Tess Square) includes part of the agricultural fields adjacent to Church Hill and Burton Street, as well as Marnhull Pharmacy and barns to the south of the fields. The southern site area (for Butts Close) includes a single agricultural field that is enclosed by Butts Close, New Street, Schoolhouse Lane, and Chippel Lane. The surrounding area predominantly comprises agricultural land and residential properties.
- 1.7 The National Grid Reference for the centre of the northern site area (Tess Square) is ST 78019 18944 and for the centre of the southern site area (Butts Close) is ST 78008 18471. The total survey area extended over approximately 13.5 hectares (ha).

2. Methodology

Desk Study & Consultations

Database and Map Search

- 2.1 The desktop study involved conducting database searches for statutory and non-statutory designated sites, legally protected species and features of interest within a 5km radius of a central point between the two site areas. The database and map search were based on available information provided by the following sources:
- 🌿 Dorset Environmental Records Centre (DERC, 2023);
 - 🌿 Multi-Agency Geographical Information for the Countryside (MAGIC, 2023);
 - 🌿 Ordnance Survey mapping;
 - 🌿 Aerial photography; and
 - 🌿 The Woodland Trust online Ancient Tree Inventory.

Habitat Survey and Assessment

- 2.2 Phlorum Limited carried out an ecological survey of the site on the 4th May 2023. The survey was carried out by a suitably qualified ecologist, Paul Carter (BSc (Hons), MBA and awaiting MCIEEM application), who has over 10 years' experience of undertaking ecological surveys. The survey results and assessment were reviewed by the project director Richard Schofield (BSc (Hons), MSc, CSJK, MCIEEM, MIEMA, CEnv), with over 20 years of experience in managing projects. The weather conditions during the survey were dry with sun and clouds.
- 2.3 The field survey comprised a walkover inspection of the land and habitats present. The survey followed standard Phase 1 survey methodology (JNCC, 2010) and covered all accessible parts of the site, including boundary features. The description of the site habitats has used the code/referencing from The UK Habitat Classification User Manual (UKHab 2020). UKHab uses primary habitat codes, either on their own or followed by one or more secondary codes. Each individual code is separated by a space. Habitats were described and mapped (Figure 1: Appendix A). A list of plant species was compiled, together with an estimate of abundance made according to the DAFOR scale. The DAFOR scale provides an estimate of the relative abundance of plant species within the Survey Area (Appendix D).
- 2.4 This assessment provides information on the habitats in the survey area and identifies actual or potential presence of legally protected or otherwise notable species/habitats in or immediately adjacent to the site.

- 2.5 Target notes highlighting a particular feature of ecological interest have been labelled with “TN” on the habitat survey map.
- 2.6 Scientific names are given after the first mention of a species, thereafter, common names only are used. Nomenclature follows Stace (2010) for vascular plant species.

Protected Species Assessment

- 2.7 The potential for the site to provide habitat for protected species was assessed from field observations in conjunction with results of the desk study. The site was inspected for indications of the presence of protected species including:
- 🌿 Habitat considered suitable to support widespread reptile species including areas with a scrub/grassland mosaic and potential hibernation sites;
 - 🌿 On-site ponds offering potential breeding opportunities for great crested newts (*Triturus cristatus*) and the presence of suitable terrestrial habitat including hedgerows and rough grassland;
 - 🌿 The presence of features in and on trees indicating potential for roosting bats (Chiroptera), including knot and rot holes and loose bark. Secondary evidence of bats including staining, droppings, and feeding remains were also looked for;
 - 🌿 The presence of nesting habitat for breeding birds, including mature trees, dense scrub, and hedgerows, and direct evidence of bird nesting including bird song, old nests etc.;
 - 🌿 Habitats considered suitable to support badger (*Meles meles*) setts, and evidence in the form of hair, pathways, and latrines;
 - 🌿 Presence of woodland and/or hedgerows providing suitable habitat to support hazel dormice (*Muscardinus avellanarius*);
 - 🌿 Riparian habitat supporting suitable features for water voles (*Arvicola amphibius*) and otters (*Lutra lutra*), and the
 - 🌿 Presence of nationally protected and/or invasive plants.
- 2.8 The potential presence for protected species is categorised as **Negligible, Low, Moderate, High, or Present**, based on the findings of the field survey and on the evaluation of existing data.
- 2.9 The purpose of this assessment is to identify whether more comprehensive Phase 2 surveys for protected species or mitigation should be recommended.

Caveat

Data Search Constraints

- 2.10 It is important to note that, even where data is held, a lack of records for a defined geographical area does not necessarily mean that there is a lack of ecological interest; the area may be simply under-recorded.

Survey Constraints

- 2.11 Ecological surveys are limited by factors that affect presence of plants and animals such as seasonality. Whilst every effort has been made to provide a comprehensive description of the site, no investigation can ensure the complete characterisation of the environment.
- 2.12 The survey was carried out early in the growing season and therefore some species may not have been visible above ground or readily identifiable.
- 2.13 The appraisal does not constitute a full botanical survey, or a Phase 2 pre-construction survey that would include accurate GIS mapping for invasive or protected plant species. This survey provides a preliminary view of the likelihood of protected species occurring on the site based on the suitability of the habitat, known distribution of the species in the local area, and any direct evidence on the site. It is therefore used as a tool to recommend further protected species surveys (or other species of significant nature conservation interest) if on the basis of the preliminary assessment or during subsequent surveys, it is considered reasonably likely that protected species may be present.
- 2.14 It is however considered that the survey was sufficiently rigorous to assess the ecological value of the site.

Limitations

- 2.15 This appraisal also does not constitute as a full invasive species survey. All surveys are subject to the conditions on site at the time of the survey. Site surveys are non-intrusive and rely on the visual identification of aboveground growth. If parts of a site are inaccessible, then these areas can often not be surveyed unless they can be viewed from other areas. If any aboveground growth is being managed or has been disturbed or covered, or the below ground growth is dormant, then it may be impossible for us to identify invasive plants in these areas during our non-intrusive survey.

3. Baseline Conditions

Aerial Photography and OS Maps

- 3.1 Aerial photographs and OS maps show the site to predominantly comprise agricultural land, with hedgerows and a small number of trees. There are also four buildings within the northern site area (Tess Square). The fields that make up the site are bound by roads and residential properties. The surrounding area mostly comprises a combination of residential properties and agricultural land. There appear to be six ponds and two drainage ditches within 500m of the site.

Statutory and Non-Statutory Designated Sites

Statutory Sites

- 3.2 The only statutory designated site within 5km is Butts Pond Meadows, Sturminster Newton Local Nature Reserve (LNR), which is located 3.6km to the south of the site at their closest points. Table 1 provides details of this LNR.

Table 1: Statutory sites within 5km of the site

| Site Name | Reason for Designation | Area (ha) | Distance from the Site |
|---|--|-----------|------------------------|
| Butts Pond Meadows, Sturminster Newton LNR | Species rich damp chalk grassland bordered by industrial estate and housing estates. Ditches and pond have three species of newt including the protected great crested newt. | 1.62 | 3.6km to the south |

Non-Statutory Sites

- 3.3 The closest non-statutory designated site is Todber Copse Site of Nature Conservation Interest (SNCI), located 1.5km to the northeast of the site at their closest points. Table 2 provides a list of non-statutory sites, designated for nature conservation, within 2km of the site.
- 3.4 There are also three Local Geological Sites (LGS) within 2km of the site.

Table 2: Non-statutory sites within 2km of the site

| Site Name | Reason for Designation | Area (ha) | Distance from the Site |
|-------------------------------------|---|-----------|------------------------|
| Todber Copse SNCI | Lowland mixed deciduous woodland. | 3.15 | 1.5km to the northeast |
| Spar/Meatyard's Coppice SNCI | Deciduous and plantation woodland on a heavy clay soil. | 2.22 | 1.8km to the southeast |

Ancient Woodland

- 3.5 There is no ancient woodland covering any part of the site or immediately adjacent to the site. No trees on or adjacent to the site are listed on the Woodland Trusts' Ancient Tree Inventory.
- 3.6 The closest area of ancient woodland is situated 1.56km to the southeast.
- 3.7 The closest ancient tree is situated 660m to the northwest.

Habitats

Site Summary

- 3.8 The site is split between two areas - the northern site area (Tess Square) and southern site area (Butts Close) - and these are described separately.
- 3.9 The site comprised buildings (u1b5), developed land; sealed surface (u1b), cereal crop (c1c), modified grassland (g4), ruderal/ephemeral (c 17 and s 17), fen marsh and swamp (f2), hedgerow (h2a), hedgerow with trees (h2a 190), scattered trees (c 11 and g 11), other rivers and streams (r2b), and bramble scrub (h3d).
- 3.10 The main habitats recorded within the site are described below. The UKHab code is shown in the bracket after the habitat type (UKHab 2020). Additional photographs are provided in Appendix B.

Northern Site Area (Tess Square)

Buildings (u1b5)

- 3.11 There were four buildings within the northern site area.

Building 1 (B1)

- 3.12 In the northeast of this site area was a modern building in use as a pharmacy. It was inspected externally but not internally. It was of modern brick construction and no broken tiles or gaps were visible in the building. It is understood that this building will be unaffected by the proposed development.

Buildings 2, 3 & 4 (B2, B3 & B4)

- 3.13 There were three large barns to the south that had historically been used as chicken sheds. They were in a state of disrepair and composed of wood and concrete. These were accessed internally and found to contain a wire mesh across the floors. Each was on concrete block foundation that was raised off ground level. It is understood that these barns will be demolished as part of the proposed development.

Developed Land; Sealed Surface (u1b)

- 3.14 The area around the barns in the south of the site area was concrete hardstanding. There were some materials stored here.
- 3.15 In the southeast of the site area was a short section of a hard surfaced access track.
- 3.16 The area around the pharmacy in the north was a hard surfaced car park and provided access to Church Hill.

Cereal Crop (c1c)

- 3.17 The majority of the site area was dominated by a large arable field. At the time of the survey this contained a crop understood to be wheat (*Triticum aestivum*).

Modified Grassland (g4)

- 3.18 Around the car park servicing the pharmacy, in the northeast of this site area, was an area of managed grassland. This was relatively species poor and dominated by perennial rye (*Lolium perenne*). Daisy (*Bellis perennis*), dandelion (*Taraxacum vulgare* agg.), and self-heal (*Prunella vulgaris*) were also noted to be present.

Ruderal/Ephemeral (c 17 & s 17)

Ruderal/Ephemeral on Cropland (c 17)

- 3.19 The arable field margins were made up of ruderal vegetation including nettle (*Urtica dioica*), common hogweed (*Heracleum spondylium*), cow parsley (*Anthriscus sylvestris*) and dock (*Rumex* sp.).

Ruderal/Ephemeral on Sparsely Vegetated Land (s 17)

- 3.20 Surrounding the barns in the south of this site area was ruderal vegetation on sparsely vegetated land, including recently felled ash tree trunks (*Fraxinus excelsior*) and conifer brush.

Fen Marsh and Swamp (f2)

- 3.21 In the north of this site area was a small area of marshy grassland that appeared to be subject to seasonal flooding. At the time of the survey it was dry. Dominant species seen included sedge (*Carex* sp.) and rush (*Juncus* sp.). Reed canary grass (*Phalaris arundinacea*) was also seen.

Hedgerow (h2a) – Priority Habitat

- 3.22 Around the northern and eastern borders of the arable fields were sections of well-established native hedgerow. This was in good condition and contained a number of woody species including field maple (*Acer campestre*), ash, hawthorn (*Crataegus monogyna*), blackthorn (*Prunus spinosa*), elm (*Ulmus* sp.) and elder (*Sambucus nigra*). Within the field layer was red campion (*Silene dioica*), comfrey (*Symphytum* sp.), hemlock (*Conium maculatum*) and garlic mustard (*Alliaria petiolata*).
- 3.23 Due to the diversity of woody species present, it is considered that this hedgerow would meet the criteria of a significant Dorset hedgerow.

Scattered Trees (c 11 & g 11)

Scattered Trees on Cropland (c 11)

- 3.24 Within the main arable field was an isolated stand of alder trees (*Alnus* sp).
- 3.25 To the west of the pharmacy was a large ash tree of significant age (TN1). It is understood that this tree will not be impacted by the proposed development.

Scattered Trees on Grassland (g 11)

- 3.26 Surrounding the pharmacy, in the northeast, was an area of relatively young trees including Scots pine (*Pinus sylvestris*), silver birch (*Betula pendula*), whitebeam (*Sorbus aria*) and field maple. Below these were also tightly trimmed holly (*Ilex aquifolium*) and box (*Buxus sempervirens*).
- 3.27 In the north of the site near the marshy grassland was an area of willow (*Salix* sp.) and alder. Around this was bramble (*Rubus fruticosus* agg.) and willowherb growth (*Epilobium* sp.). There were also a number of standing dead ash trees.

Other Rivers and Streams (r2b)

- 3.28 To the north of the hedge in the northern part of the site area was a channel of shallow fast-flowing water.

Southern Site Area (Butts Close)

Building (u1b5)

- 3.29 Within the eastern portion of the field was part of a historic, derelict building (B5), within which was a disused well (TN2).

Cereal Crop (c1c)

- 3.30 The majority of the site area was dominated by arable cropland. At the time of the survey this contained a crop understood to be wheat.

Ruderal/Ephemeral on Cropland (c 17)

- 3.31 Along the northern field margin was a strip of ruderal vegetation, including cow parsley and nettle.

Bramble Scrub (h3d)

- 3.32 On the northern boundary of the field was a small area of scrub, dominated by bramble.

Hedgerow (h2a) – Priority Habitat

- 3.33 The field was bound by a native hedgerow, except for along the northern boundary. This hedge contained hazel (*Corylus avellana*) elm, hawthorn, sloe, and sycamore (*Acer pseudoplatanus*) and had a field layer containing harts tongue fern (*Asplenium scolopendrium*), dog's mercury (*Mercurialis perennis*) and lords and ladies (*Arum maculatum*).

- 3.34 Due to the diversity of woody species present, it is considered that this hedgerow would meet the criteria of a significant Dorset hedgerow.

Hedgerow with Trees (h2a 190) – Priority Habitat

- 3.35 One section of the boundary hedgerow, approximately 150m in length, contained trees including field maple and sycamore.

- 3.36 Due to the diversity of woody species present, it is considered that this hedgerow would meet the criteria of a significant Dorset hedgerow.

Individual Tree on Cropland (c 11)

- 3.37 There was a single sycamore tree adjacent to the derelict building that contained the well.

Protected Species

- 3.38 Legislation relating to the protected species referred to in this section is included in Appendix C.

- 3.39 The following paragraphs detail the suitability of the on-site habitats to support protected species and include information from the data search for protected, rare and otherwise notable species returned within a 5km radius.

Bats

- 3.40 The data search showed records of bats from the genera pipistrelle (*Pipistrellus*), long-eared (*Plecotus*), myotis (*Myotis*), horseshoe (*Rhinolophus*), serotine (*Eptesicus*) and noctule/Leisler's (*Nyctalus*) occurring within the 5km search area in the past 15 years.

- 3.41 The pharmacy (B1) in the north of the site was of modern construction with no points of ingress and considered to be of **negligible** potential for roosting bats.

- 3.42 The three barns (B2, B3 & B4) in the south of the northern site area were all open internally with no roosting features present. However, the areas below, in the void created by the raised block work, created a chamber which had stacked material. The area below the three barns had **low** potential for roosting bats.

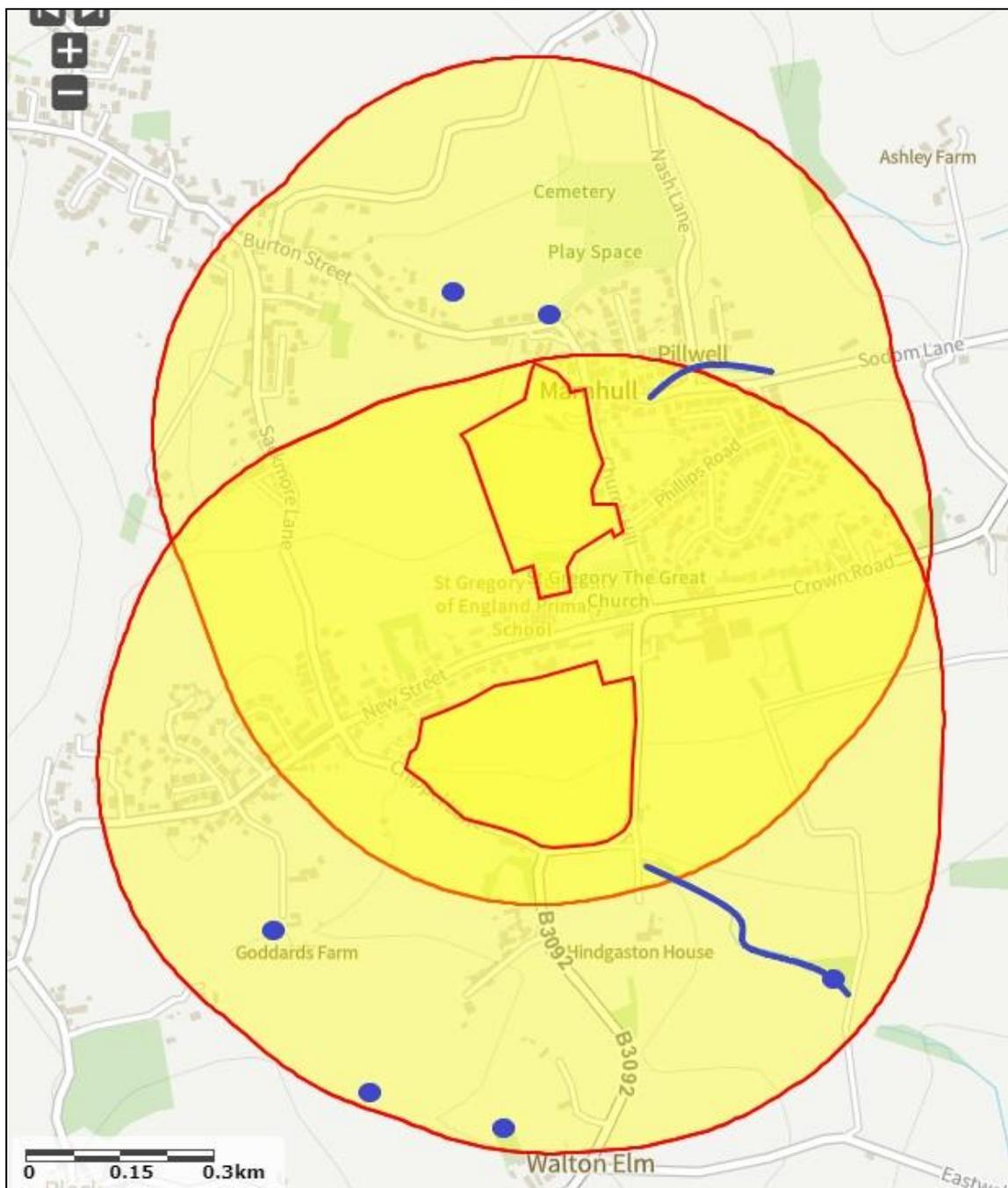
- 3.43 The remaining parts of the derelict building (B5) in the southern field did not contain any suitable roosting features and was therefore considered to have **negligible** potential for roosting bats.
- 3.44 Although unlikely to contain suitable roosting features, a full internal inspection of the disused well (TN2) in the southern field was not possible, therefore it is considered to have **low** potential for roosting bats.
- 3.45 The trees around the site (northern and southern areas) were all considered to have **negligible** potential for roosting bats, with the exception of the large ash tree (TN1) near the pharmacy (northern site area), which has **low** potential for roosting bats. It is understood however that this tree is to be unimpacted by the proposed development.
- 3.46 The site (northern and southern areas) contains few features of value to foraging bats. However, the boundary hedgerows may be used as linear features for commuting. Overall, the site was considered to have **low** potential for commuting and foraging bats.

Reptiles

- 3.47 The data search showed records of common lizard (*Zootoca vivipara*), slow-worm (*Anguis fragilis*), adder (*Vipera berus*), and grass snake (*Natrix helvetica*) within 5km of the site within the past 15 years.
- 3.48 During the survey no reptiles or signs of reptiles were seen, however the habitat contained features that could support widespread reptile species. This included hedgerows, scrub, and ruderal vegetation. The arable land, which covered most of the site, was considered unsuitable for reptiles.
- 3.49 Overall the site (northern and southern areas) was assessed as having **moderate** potential to support reptiles.

Amphibians

- 3.50 The data search returned over 50 records of great crested newt within 5km of the site within the past 15 years. There were no records within 500m. Aerial photographs and maps show six ponds and two drainage ditches within 500m of the site (see Drawing 1 below).
- 3.51 The majority of the site falls within a 'green' GCN risk zone, with the northern-most portion of the site falling within an 'amber' GCN risk zone.
- 3.52 The drainage ditch in the north of the site was considered unsuitable for great crested newts due to the fast flowing and shallow nature of the water it held.
- 3.53 The terrestrial habitat does however contain features that could support foraging and commuting newts. These include hedgerows, scrub, and ruderal vegetation.
- 3.54 It was considered that the site (northern and southern areas) offered **negligible** potential for breeding newts and **low** potential for foraging and commuting newts.



Drawing 1: Ponds and drainage ditches within 500m of the site.

Birds

3.55 Several Red or Amber listed Birds of Conservation Concern¹ (BoCC), and notable² bird species were returned by the data search that may utilise habitats within the site. Species include song thrush (*Turdus philomelos*), cuckoo (*Cuculus canorus*), and swift (*Apus apus*).

¹ Birds of Conservation Concern status is prioritised into high concern (Red), medium concern (Amber) and low concern (Green) (Eaton et al, 2009). Red-list species are those that are globally threatened according to the IUCN criteria; those

- 3.56 During the survey it was noted that the onsite trees, hedgerows, scrub, and barns provided suitable habitat for a range of nesting birds.
- 3.57 In addition, the arable land may provide suitable nesting habitat for ground-nesting species such as skylark (*Alauda arvensis*).
- 3.58 Overall it was considered that the site (northern and southern areas) offered **moderate** potential for breeding birds.

Badgers

- 3.59 The data search showed records of badger (*Meles meles*) within 5km of the site within the past 15 years.
- 3.60 No evidence of badgers was seen during the survey therefore it was considered badger setts were unlikely to be present on or adjacent to the site at the time of the survey. The habitats onsite are however suitable for sett-building and foraging.
- 3.61 Overall, the site (northern and southern areas) offered **low** potential for breeding badgers and **moderate** potential for foraging and commuting badgers.

Hazel Dormice

- 3.62 The data search showed no records of dormice within 5km of the site within the past 15 years.
- 3.63 No dormice or secondary signs of dormice, such as nests or the shells of eaten hazel nuts, were found on-site. Whilst the hedgerows on-site could be suitable dormouse habitat, the lack of connectivity to a wider network of hedgerows or woodland, due to the site being enclosed by roads, makes it unlikely that dormice would utilise the site.
- 3.64 Overall it was considered that the site (northern and southern areas) offered **low** potential to support breeding dormice and **low** potential to support commuting dormice.

Water Voles

- 3.65 The data search showed one record of water vole within the 5km search area in the past 15 years.
- 3.66 The majority of the site was completely unsuitable for water vole. There was however a narrow channel of shallow, flowing water in the north of the site. Whilst unlikely to support water vole, there is a small possibility that this feature could be used by this species as a commuting route.

whose population or range has declined rapidly in recent years; and those that have declined historically and have not shown a substantial recent recovery. Amber-list species are those with an unfavourable conservation status in Europe; those whose population or range has declined moderately in recent years; those whose population has declined historically but made a substantial recent recovery; rare breeders; and those with internationally important or localised populations. Green-list species are those that fulfil none of the criteria.

² Notable Birds are based on a list of birds that are particularly scarce or vulnerable either at national or a regional level. The majority of these bird species are designated as Schedule 1 species, under the Wildlife and Countryside Act 1981 (as amended), or listed as red or amber-listed BoCC.

- 3.67 Overall it was considered that the site (northern and southern areas) offered **negligible** potential to support breeding water voles and **low** potential to support commuting and foraging water voles.

Otters

- 3.68 The data search showed several records of otter within 5km of the site within the past 15 years.
- 3.69 The site did not contain the aquatic habitat and vegetation types that would support breeding, foraging or commuting otters. The channel of flowing water on the site was not considered suitable for otter.
- 3.70 Overall it was considered that the site (northern and southern areas) offered **negligible** potential to support breeding otter and **negligible** potential to support foraging and commuting otter.

Hedgehogs

- 3.71 The data search showed several records of hedgehogs (*Erinaceus europaeus*) within 5km of the site within the past 15 years.
- 3.72 Although no direct evidence of hedgehogs was seen during the survey, the habitats on site, such as the short grassland, hedgerows, and scrub, would provide suitable habitat for them to forage and/or hibernate.
- 3.73 Overall, the site (northern and southern areas) offered **moderate** potential for hedgehogs.

Stag Beetles

- 3.74 The data search showed no records of stag beetle (*Lucanus cervus*) within 5km of the site within the past 15 years.
- 3.75 There was a small amount of standing dead wood on the site which could support stag beetles.
- 3.76 Overall, the site (northern and southern areas) offered **low** potential for stag beetle.

Invasive Plants

- 3.77 The data search showed records of plant species including giant hogweed (*Heracleum mantegazzianum*) and Canadian waterweed (*Elodea canadensis*) occurring within the 5km search area in the past 15 years. These plants are listed as invasive in Schedule 9 Part II of the Wildlife and Countryside Act (1981 amended).
- 3.78 During the survey no specimens were seen of plant species that are listed in Schedule 9 Part II of the Wildlife and Countryside Act (1981 amended) or appear on the Non-Native Species Secretariat (NNSS, 2023)³ register of species that are of concern.

³ GB Non-Native Species Secretariat (NNSS) (2023). Accessed from www.nonnativespecies.org

4. Evaluation

- 4.1 On the basis of the information available from the habitat survey and desk study, the site has been evaluated in terms of its potential for biodiversity, support of protected species and habitats, and the contribution the area makes as part of the wider landscape. The nature conservation value of the site has been assessed following standard criteria developed by CIEEM (2017 and 2018) and in accordance with BS 24040:2013 Biodiversity – code of practice for planning and development. This is provided below.
- 4.2 The biodiversity value of protected species within the site is a preliminary evaluation based upon the desk study records, habitat suitability, and the conservation status of the species in question. It should be noted that where European Protected Species (EPS) or species of Principle Importance for the Conservation of Biodiversity are present on-site they may be valued at a lower level/scale where it is considered likely that populations would not be of sufficient importance to justify designation at a higher level. However, regardless of their biodiversity value, such species are still subject to national and/or European legislation.
- 4.3 Key aspects of relevant planning policy regarding conservation, including an explanation of species referred to as being of 'Principal Importance for Conservation of Biodiversity' and European Protected Species and habitats, are provided in the Legislation section in Appendix C.

Geographic Evaluation

Features of International Importance

- 4.4 Features of International Importance are principally sites covered by international legislation or conventions. The Conservation of Habitats and Species Regulations 2017 (as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019) implements the Natural Habitats and Wild Fauna and Flora (92/43/EC) (Habitats Directive) in England and Wales. The Regulations mainly deal with the protection of sites with certain habitats and populations of species that are important for nature conservation in a European context, i.e. Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).
- 4.5 The site is not subject to any international statutory nature conservation designations. The closest site of International Importance is Fontmell and Melbury Downs SAC located 8.9km to the east. The designated features of this SAC are *Festuco-Brometalia* grasslands and the species early gentian (*Gentianella anglica*). The site does not provide any supporting habitat for this designated site or its qualifying species.

Features of National Importance

- 4.6 Features of national importance include Sites of Special Scientific Interest (SSSIs) which are designated under the Wildlife and Countryside Act 1981 (as amended). The site is not subject to any national statutory nature conservation designations, and it is not considered that any habitats or populations or assemblages of species within the site would meet the criteria for the designation of SSSIs at an appropriate geographic level⁴.
- 4.7 The closest designated site of national importance for nature conservation is Piddles Wood SSSI located 5.2km to the south. The site does not provide any supporting habitat for this SSSI.
- 4.8 The site is also located within the 10km Impact Risk Zones of Hod and Hambledon Hills SSSI and Blackmore Vale Commons and Moors SSSI, but the site does not have any supporting habitat for these SSSIs.

Features of Regional (i.e. Dorset) Importance

- 4.9 The site does not include any features of value at this level neither is it likely to be selected as a SNCI based on the results of the current survey.

Features of District (i.e. Blackmore Vale) Importance

- 4.10 The site does not support any features that were considered to be of value at this level.

Features of Local (i.e. Marnhull) Importance

- 4.11 The hedgerows and large ash tree on the site are important ecological features that may have local importance. The remainder of the onsite habitats did not have value at this level.

Features of Value Immediate Vicinity (c. 250m) of the Project

- 4.12 The on-site vegetation is of value within the immediate vicinity and provides suitable habitat to support protected species including bats, reptiles, great crested newts, birds, badgers, hazel dormice, water voles, hedgehogs, and stag beetles. It also forms part of the wider ecological network of habitats in the locality, providing wildlife corridors for mobile species to move through the landscape.

⁴JNCC Guidelines for selection of biological SSSIs (see <http://jncc.defra.gov.uk/page-2303#download>).

Summary

- 4.13 Overall, on the basis of the survey results and the above criteria, habitats within the site are considered largely to be of ecological value within the immediate vicinity only. The hedgerows and large ash tree on the site may have local importance. The site provides suitable habitat to support several protected species and groups including bats, reptiles, great crested newts, birds, badgers, hazel dormice, water voles, hedgehogs, and stag beetles. However, populations of these are unlikely to be locally significant.

Local Plan Evaluation

- 4.14 It is considered that the statutory North Dorset Local Plan (Adopted 2016) contains the following nature conservation policies relevant to the site. A list of the policies is provided below. The full text of the relevant policies is contained in the Legislation section in Appendix C and this should also be referred to.

North Dorset Local Plan (2016)

-  Policy 3 – Climate Change.
-  Policy 4 – The Natural Environment.

5. Discussion and Recommendations

Discussion

- 5.1 The survey site is located at land off Church Hill and Butts Close, Marnhull, Sturminster Newton. The survey area extended over approximately 13.5 hectares (ha). Habitats to be impacted by the development proposals include buildings (u1b5), developed land; sealed surface (u1b), cereal crop (c1c), modified grassland (g4), ruderal/ephemeral (c 17 and s 17), fen marsh and swamp (f2), hedgerow (h2a), hedgerow with trees (h2a 190), scattered trees (c 11 and g 11), other rivers and streams (r2b), and bramble scrub (h3d).
- 5.2 Design proposals include a commercial centre at land off Church Hill, to be known as Tess Square, and a residential development at land off Butts Close, to be known as Butts Close.
- 5.3 The desk study has shown that the site is not subject to any statutory or non-statutory site designations. The closest statutory site is Butts Pond Meadows, Sturminster Newton LNR, located 3.6km to the south.
- 5.4 Habitats within the proposed development area were assessed as being of value to wildlife within the local area and immediate vicinity, with potential to support bats, reptiles, great crested newts, birds, badgers, hazel dormice, water voles, hedgehogs, and stag beetles, and these species may pose a constraint to works.
- 5.5 It is recommended that targeted surveys in respect to bats and reptiles are undertaken in order to determine presence or likely absence.
- 5.6 It is recommended that a District Level License (DLL) is obtained with respect to great crested newts.
- 5.7 In addition, a precautionary approach to works in respect to breeding birds, badgers, hazel dormice, water voles, hedgehogs, and stag beetles is recommended to minimise any adverse impacts on these species groups.
- 5.8 Details regarding specific mitigation, including further surveys and precautionary working practices together with habitat enhancement measures are provided below.

Recommendations

Bats

- 5.9 Bats receive protection under The Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2017 (as amended).

- 5.10 Due to the low potential suitability of the barns (B2, B3 & B4, in northern area) and the disused well (TN2, in southern area) to support roosting bats, a single emergence survey is recommended in order to ascertain whether roosting bats are using these features. This survey must be undertaken during the peak active period for bats taken to run between May and August.
- 5.11 Where a roost is likely to be impacted by the works, and where avoidance is not possible, it may be necessary to obtain a European Protected Species Mitigation (EPSM) Licence before the works can proceed and to complete any necessary mitigation.
- 5.12 Such a licence would need to be obtained from Natural England once full planning permission is in place. The application will require the drafting of a detailed mitigation strategy including timing and construction methods in addition to the mitigation measures proposed. Natural England currently require 30 working days to determine a licence application.
- 5.13 If a bat roost is found for a common bat species and the roost is of low conservation value, then a Low Impact Class Licence may be obtained for the site instead. This type of licence is typically obtained within 15 days.
- 5.14 The large ash tree in the northern site area (TN1) has low potential to support roosting bats, however it is understood that this tree will be unaffected by the proposed development. If the tree is to be removed, a precautionary approach of soft-felling under the supervision of a suitably qualified ecologist should be followed. This tree should not be directly illuminated by artificial lighting during the construction works or post-development.
- 5.15 Due to the site's low potential to support commuting and foraging bats, it is recommended that a series of three activity transect surveys are undertaken. This should involve a walked transect of the northern and southern areas conducted one night per season, between April and October inclusive. If possible, static detectors should also be left onsite to collect data for five consecutive nights per season.
- 5.16 The results of the activity surveys can then be used to inform specific mitigation and enhancement measures for this species group to include a lighting scheme that is sympathetic to bats.

Reptiles

- 5.17 All reptiles are protected under the Wildlife and Countryside Act 1981 (as amended).
- 5.18 The site (northern and southern areas) provides a vegetation structure suitable for widespread reptiles therefore a reptile survey is recommended. This will entail a minimum of seven survey visits, following current guidelines (Froglife, 1999; English Nature, 2004), to determine the presence or likely absence and distribution of reptiles within the site.

- 5.19 Reptile surveys can be undertaken in the active period for reptiles taken to run between mid-March and October. The optimum time is generally late spring, from April to mid-June and in the early autumn during September.
- 5.20 The results of the survey will then be used to inform mitigation proposals for this species group.

Great Crested Newts

- 5.21 Great crested newts receive protection under the Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2017 (as amended).
- 5.22 Due to the potential for great crested newts to use on-site habitats, it is recommended that a District Level Licence (DLL) is obtained for the proposed development. An application will need to be made to Dorset Council's Natural Environment Team (NET), who will subsequently provide a quote for the conservation payment required based on their impact assessment. No survey work is required for a DLL.
- 5.23 Alternatively, great crested newt surveys could be undertaken in Spring 2024, to determine presence/ likely absence and, if present, enable a population assessment to be made.
- 5.24 Where possible, all ponds and wet drainage ditches within 500m of the site (northern and southern areas), should be included in the survey. The survey protocol should follow that set out in the Great Crested Newt Mitigation Guidelines (English Nature, 2001). An initial four surveys are required to demonstrate presence or absence, and these must be carried out between mid-March and mid-June with two of those visits taking place within the peak survey time between mid-April and mid-May.
- 5.25 If great crested newts are found to be present, an additional two survey visits will then be required to allow a population size class assessment to be made, with at least one of these visits being undertaken within the peak survey time between mid-April and mid-May.
- 5.26 The results of the survey should then be used to inform mitigation proposals for this species.
- 5.27 If great crested newts are found to be present in the locality following the survey, a European Protected Species Mitigation Licence from Natural England may be required to remove aquatic or terrestrial habitat in order to facilitate the works. Once submitted, a licence application can take up to 30 days to be processed. Natural England will only grant a licence once planning permission has been received.

- 5.28 As part of the licence application, a Method Statement will need to be submitted to guide works in relation to this species. If individuals are found in the local vicinity, suitable compensation measures to mitigate for losses to any aquatic habitat will be required in addition to undertaking a formal translocation to ensure individuals are not present within the development footprint. This process will involve fencing the development area and trapping and relocating newts over a number of weeks.

Breeding Birds

- 5.29 The on-site vegetation and barns provide suitable nesting habitat for a range of bird species. All nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended).
- 5.30 In order to avoid any potential impact on breeding birds, the clearance of any trees, scrub, hedgerows, or arable crop, or demolition of the barns should be undertaken outside the main bird nesting season which runs from March to August inclusive⁵, with clearance works possible between September and February. Where this is not possible, an ecologist would need to check these features for active nests and signs of bird breeding activity.
- 5.31 In the event that a nest is found, an exclusion zone around the nest would be established. Works would have to cease within this buffer area until the young birds have fledged.

Badgers

- 5.32 Badgers receive protection under The Protection of Badgers Act 1992.
- 5.33 Due to the potential presence of badgers in the area, a series of general precautions are recommended. This will include the following;
- Throughout construction, all on-site contractors must be made aware of the potential presence of badgers in the locality and a toolbox talk should be given by a qualified ecologist immediately prior to the start of construction works to discuss the potential for badgers to pass through the site and to provide information on legislation and the ecology of this species.
 - All excavations should be covered at night or if this is not possible, ramps must be installed into the trenches to enable badgers to escape should they enter the excavations. All materials must be stored safely and lids securely fitted, particularly waste and other potential food sources.

⁵ It should be noted that this is the main breeding period. Breeding activity may occur outside this period (depending on the particular species and geographical location of the site) and thus due care and attention should be given when undertaking potentially disturbing works at any time of year.

Hazel Dormice

- 5.34 The hazel dormouse is protected under the Conservation of Habitats and Species Regulations 2010 (as amended) and the Wildlife and Countryside Act 1981 (as amended).
- 5.35 Although there was habitat on site that was potentially suitable for supporting dormice, it is thought to be unlikely that they are present, and it is not felt that they would be significantly impacted by the proposed development. The hedgerows are to be retained with a buffer, with the exception of where two new access points will be created. Therefore, a precautionary approach to the clearance of the site should be sufficient for protecting any dormice present.
- 5.36 It is recommended that all hedgerow clearance work is undertaken in the presence of a suitably qualified ecologist, who will guide the schedule of works.

Water Voles

- 5.37 Water voles are protected under the Wildlife and Countryside Act 1981 (as amended).
- 5.38 The onsite habitats were considered to provide limited potential for water vole and therefore, at this stage, no further survey is considered necessary. It is however considered necessary to adopt a precautionary approach to works to safeguard this protected species. This will require a suitably qualified ecologist carrying out an updated walkover survey of the site immediately prior to works starting on the site. The ecologist will then give a toolbox talk to the on-site contractors prior to the start of works to discuss a precautionary approach to works.
- 5.39 Any excavations that are left overnight should be covered or include a ramp of 45 degrees or less on one face to allow water voles and other wildlife to climb out should they fall into the excavation. Excavations should be inspected daily before the start of works.

Stag Beetles

- 5.40 Stag beetles are a Species of Principle Importance for the UK, therefore a precautionary approach to the clearance of all dead wood should be taken during works. Where possible the standing dead wood should be retained as part of the works. Where the dead trees pose a health and safety risk, the above ground section should be felled and the arisings stacked on the ground. The tree base and root system of these trees should be retained where possible.
- 5.41 Where it is not possible to retain these areas, the root system of the dead trees should be removed under an ecological watching brief and any larvae encountered should be removed to suitable retained deadwood habitat elsewhere around the site boundaries.

Hedgehogs

- 5.42 Hedgehogs are listed on the Natural Environment and Rural Communities (NERC) Act 2006 Section 41 as a Species of Principal Importance. They are a rapidly declining species.
- 5.43 Any excavations that are left overnight should be covered or include a ramp of 45 degrees or less on one face to allow hedgehogs and other wildlife to climb out should they fall into the excavation. Excavations should be inspected daily before the start of works.
- 5.44 Hedgehogs need short grass areas to search for invertebrate prey. Log piles and decaying vegetation are used to forage and hibernate in. Areas of leaf litter can be collected and used in nests. Dense scrub areas are also useful to build hibernation nests during winter. Wildlife friendly corridors allow hedgehogs and other wildlife to migrate across a site. These are discussed in the Wildlife Friendly Pathways Section below.

Habitat Retention

- 5.45 All retained trees, including all adjacent off-site trees should be protected in accordance with British Standards (BS 2012) 5837:2012 Trees in Relation to Design, Demolition and Construction. The root protection areas of any retained trees must be left free from excavation and disturbance, and protected during any proposed works. Protection should be in the form of fencing and signs installed for the duration of the works.

Habitat Enhancement

- 5.46 New development offers the opportunity for habitat enhancement in accordance with national and local planning policy and some recommendations are included below.

Bird and Bat Boxes and Bricks

- 5.47 Additional bird nesting and bat roosting provision should be incorporated into new design proposals. It is recommended that these are incorporated into the new buildings. Some recommendations are made below as a guide.
- 5.48 Bat roosting opportunities could be provided through the installation of boxes on the outside of the walls or integrated bricks, such as the Schwegler 2F, or other makes of a similar design, such as Chavenage Bat box. There are a range of bat boxes available and these can be selected to suit the development and bat species in the locality.
- 5.49 Bird boxes could be installed on the walls of the new buildings which could include the following Schwegler bird house or 1B makes, or similar designs from alternative suppliers. If possible, it is recommended that integrated bricks, to include swift bricks, are included.
- 5.50 Further details of the bird and bat boxes are provided in Appendix F.

- 5.51 Bat boxes should be installed at appropriate locations ideally with south-east, south, or south-west facing aspects at least 3m from ground level. Ideally they need to be exposed to 6-8 hours of direct sunlight, but sheltered from strong winds. These should ideally be positioned directly below the eaves.
- 5.52 Bird boxes should be located out of prevailing wind, rain, and strong sunlight, ideally with a clear flight path to the entrance. Ideally they should be installed two to four metres from the ground facing north or north-east.

Wildlife Friendly Pathways

- 5.53 The increase in building can result in ecological areas which are unconnected. Effectively these are ecological islands, and often there is no way for wildlife to migrate to and from these areas. One way to reduce the impact and allow wildlife, including hedgehogs, to migrate across sites is to install wildlife friendly pathways across a site. This can include a range of things such as wildlife corridors, such as hedgerows and scrub or rough grassland corridors, but also installing holes in fences. Wildlife holes, often referred to as hedgehog holes, help wildlife migrate through areas. The holes need to be at least 13cm by 13cm, at ground level.

Compensatory Planting

- 5.54 Additional tree and shrub planting could be incorporated into the landscape proposals to compensate for any removal to facilitate the works. Planting should include a high proportion of native species and be of local provenance where possible. These should be carefully selected to ensure they contain species suitable for the area. Some species of known wildlife value are listed in Appendix E.

6. Conclusions

6.1 The site survey revealed the following habitats:

-  Buildings (u1b5);
-  developed land; sealed surface (u1b);
-  cereal crop (c1c);
-  modified grassland (g4);
-  ruderal/ephemeral (c 17 and s 17);
-  fen marsh and swamp (f2);
-  hedgerow (h2a);
-  hedgerow with trees (h2a 190);
-  scattered trees (c 11 and g 11);
-  other rivers and streams (r2b); and
-  bramble scrub (h3d).

6.2 The site is not subject to any statutory or non-statutory designations. The closest statutory site is Butts Pond Meadows, Sturminster Newton LNR located approximately 3.6km to the south at its closest point and the survey area does not support any features that contribute to the designation of this site.

6.3 The following protected species surveys are recommended in order to determine presence or likely absence:

-  Bat emergence;
-  bat activity transect; and
-  reptile.

6.4 It is recommended that a District Level Licence is obtained with respect to great crested newts.

6.5 In addition, a precautionary approach to works in respect to breeding birds, badgers, hazel dormice, water voles, hedgehogs, and stag beetles is recommended to minimise any adverse impacts on these species groups.

6.6 It has been recommended that the site is enhanced by introducing some compensatory planting and installing bat and bird boxes.

7. References

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8. Glossary of Terms

| | |
|---------------------------|---|
| BAP | Biodiversity Action Plan |
| BRC | Biological Records Centre |
| CIEEM | Chartered Institute of Ecology and Environmental Management |
| Habitats Directive | Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora |
| LNR | Local Nature Reserve |
| LWS | Local Wildlife Site |
| MAGIC | Multi-Agency Geographical Information for the Countryside |
| NNR | National Nature Reserve |
| Nomenclature | The system of devising of names for plants |
| NPPF | National Planning Policy Framework |
| PEA | Preliminary Ecological Appraisal- formerly referred to as a Phase 1 Habitat Survey |
| SAC | Special Area of Conservation |
| SINC | Site of Importance for Nature Conservation |
| SPA | Special Protection Area |
| SSSI | Site of Special Scientific Interest |

Figures and Appendices

Appendix A

Habitat Maps

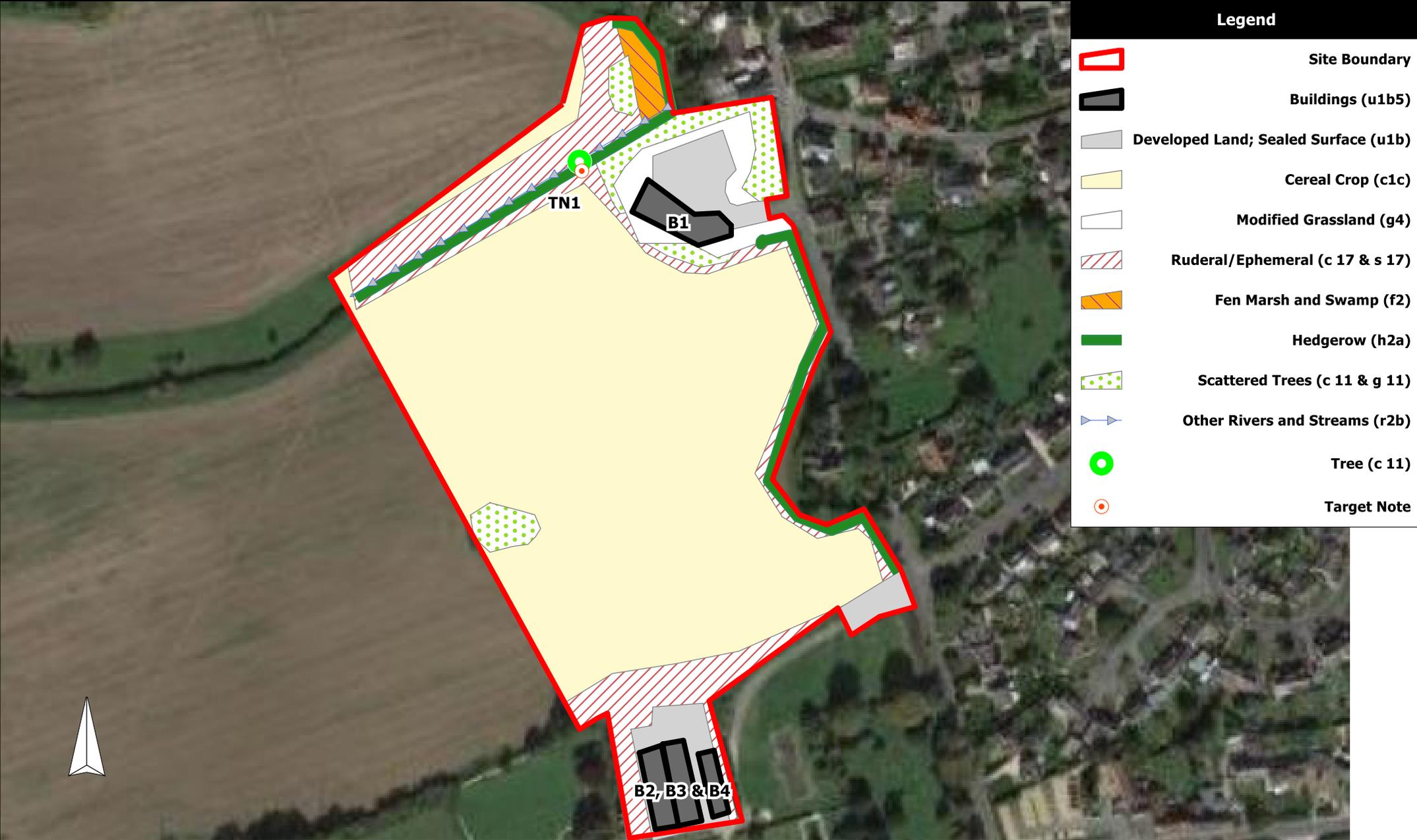


Figure 1: Marnhull Northern Site Area (Tess Square)

Drawn by: PC
 On the: 04.07.23
 Not to Scale
 Ref: 11424



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 Woodingdean, Brighton, East Sussex,
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Legend

-  **Site Boundary**
-  **Building (u1b5)**
only partial remains
-  **Cereal Crop (c1c)**
-  **Ruderal/Ephemeral (c 17)**
-  **Bramble Scrub (h3d)**
-  **Hedgerow (h2a)**
-  **Hedgerow with Trees (h2a 190)**
-  **Individual Tree (c 11)**
-  **Target Note**

TN2
B5



Figure 2: Marnhull Southern Site Area (Butts Close)

Drawn by: PC
On the: 07.07.23
Not to Scale
Ref: 10424



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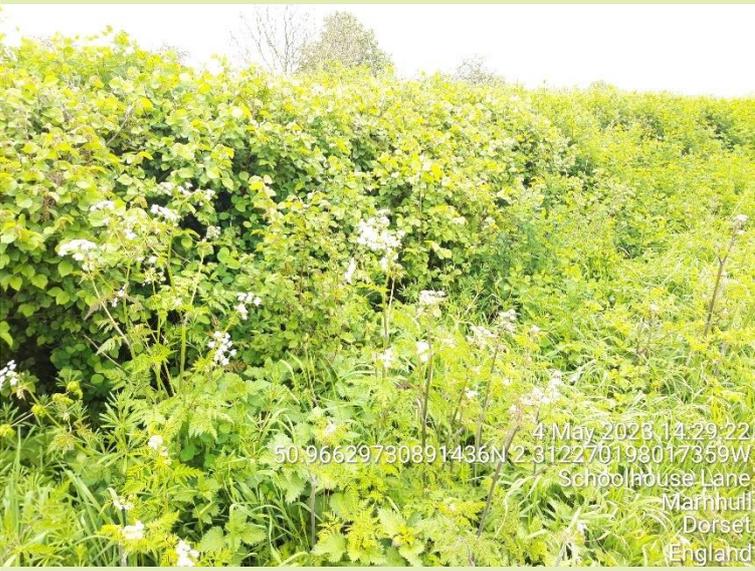
Appendix B

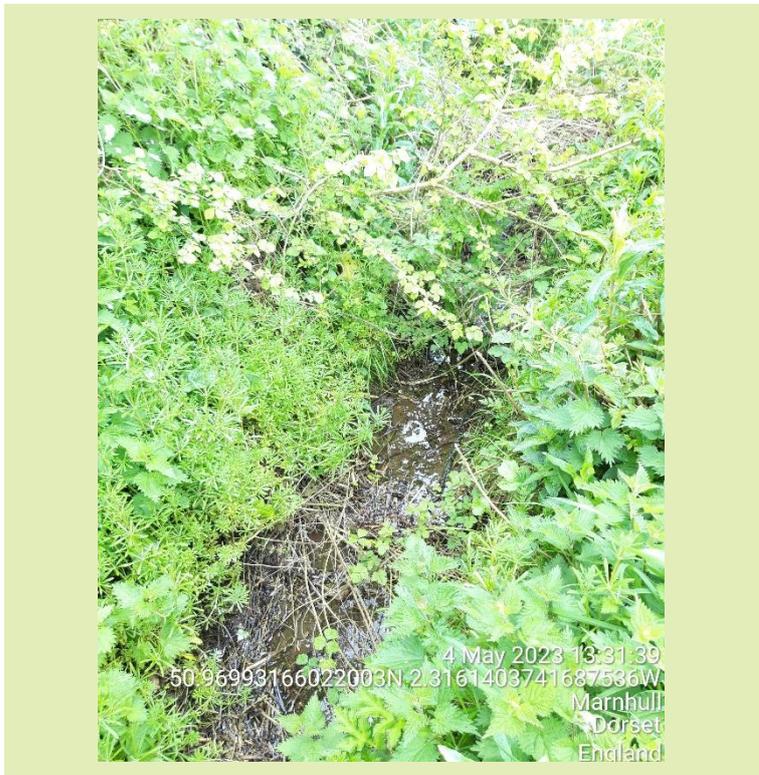
Photographs

Photographs

| Photo No. | Feature | Photograph of Feature |
|-----------|---|--|
| 1 | Building B1 - the Pharmacy. |  <p>4 May 2023 13:25:29 50.97034329548478N 2.314258385449648W</p> |
| 2 | The barns in the south of the northern site area (B2-B4). |  <p>4 May 2023 13:54:27 50.968003696762025N 2.3138709738850594W 3 New Street Marnhull Dorset England</p> |

| | | |
|----------|---|---|
| <p>3</p> | <p>Inside the barns (B2-B4).</p> |  <p>4 May 2023 13:58:08 50.96801409032196N 2.314473884180183W 3 New Street Marnhull Dorset England</p> |
| <p>4</p> | <p>Cereal crop, which covered most of the site.</p> |  <p>4 May 2023 14:56:10 50.96511170197753N 2.316991975530982W 17 Butts Close Marnhull Dorset England</p> |
| <p>5</p> | <p>Modified grassland and scattered trees, near the Pharmacy.</p> |  <p>4 May 2023 13:20:10 50.97062677145004N 2.3135881684720516W</p> |

| | | |
|----------|---|--|
| <p>6</p> | <p>Ruderal/ephemeral vegetation.</p> |  <p>4 May 2023 13:52:34 50.96827137283981N 2.314256289973855W 3 New Street Marnhull Dorset England</p> |
| <p>7</p> | <p>Fen marsh and swamp area in the northeast of the site.</p> |  <p>4 May 2023 13:35:19 50.970888789743185N 2.3143995366990566W Marnhull Dorset England</p> |
| <p>8</p> | <p>Hedgerow.</p> |  <p>4 May 2023 14:29:22 50.96629730891436N 2.312270198017359W Schoolhouse Lane Marnhull Dorset England</p> |

| | | |
|------------------|--|---|
| <p>9</p> | <p>Hedgerow with trees.</p> |  <p>4 May 2023 14:51:22 50.96418389779627N 2.3144924081861973W New Street Marnhull Dorset England</p> |
| <p>10</p> | <p>Other streams and rivers (flowing drainage ditch)</p> |  <p>4 May 2023 13:31:39 50.96993166022003N 2.3161403741687536W Marnhull Dorset England</p> |

Appendix C

Legislation

Legislation

This section contains information pertaining to the legislation and planning policy applicable in Britain. This information is not applicable to Northern Ireland, the Republic of Ireland the Isle of Man or the Channel Islands. Information contained in the following appendix is provided for guidance only.

Species

The objective of the EC Habitats Directive⁶ is to conserve plants and animals which are considered to be rare across Europe. The Directive is transposed into UK law by The Conservation of Habitats and Species Regulations 2017 (as amended) (formerly The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) and The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended).

The Wildlife and Countryside Act 1981 (as amended) implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and also implements the obligations set out for species protection from the Council Directive 2009/147/EC (formerly 79/409/EEC) on the Conservation of Wild Birds (EC Birds Directive) in Great Britain.

Various amendments have been made since the Wildlife & Countryside Act came into force in 1981. Further details pertaining to alterations of the Act can be found on the following website: www.opsi.gov.uk. Key amendments have been made through the Countryside and Rights of Way (CRoW) Act (2000) and Nature Conservation (Scotland) Act 2004.

There are a number of other legislative Acts affording protection to species and habitats. These include:

-  Countryside and Rights of Way (CRoW) Act 2000;
-  Deer Act 1991;
-  Natural Environment & Rural Communities (NERC) Act 2006;
-  Protection of Badgers Act 1992; and
-  Wild Mammals (Protection) Act 1996.

Badgers

Badgers and their setts are protected under the Protection of Badgers Act (1992), which consolidated and added to the previous Badger Acts of 1973 and 1991. Under this legislation it is an offence to:

-  cruelly ill-treat a badger, including use of tongs and digging;

⁶ Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora.

- ☞ intentionally or recklessly cause a dog to enter a badger sett;
- ☞ intentionally or recklessly damage, destroy or obstruct access to a badger sett⁷ or any part thereof;
- ☞ intentionally or recklessly disturb⁸ a badger when it is occupying a badger sett;
- ☞ possess or control a dead badger or any part of a badger;
- ☞ sell or offers for sale, possesses, or has under his control, a live badger; and
- ☞ wilfully kill, injure, take, or attempt to kill, injure, or take a badger.

A Development Licence will be required from Natural England for any development works affecting an active badger sett, or to disturb badgers while individuals are occupying the sett. Depending on the nature of the works and the specifics of the sett, badgers could be disturbed by work near the sett even if there is no direct interference or damage to the sett itself. Natural England has issued guidelines on what constitutes a licensable activity. There is no provision in law for the capture of badgers for development purposes and therefore it is not possible to obtain a licence to translocate badgers from one area to another.

Bats

Bats are protected under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). This act protects individuals from:

- ☞ intentional or reckless disturbance (at any level);
- ☞ intentional or reckless obstruction of access to any place of shelter or protection; and
- ☞ selling, offering, or exposing for sale, possession or transporting for purpose of sale.

In addition, all species of bat are fully protected under The Conservation of Habitats and Species Regulations 2017 (as amended) through their inclusion on Schedule 2. Regulation 41 prohibits:

- ☞ deliberate killing, injuring, or capturing of Schedule 2 species (all bats);
- ☞ deliberate disturbance of bat species as to impair their ability:
 - (i) to survive, breed, or reproduce, or to rear or nurture young; and
 - (ii) to hibernate or migrate.

⁷ A badger sett is defined in the legislation as "any structure or place which displays signs indicating current use by a badger". This includes seasonally used setts. Natural England (2009) have issued guidance on what is likely to constitute current use of a badger sett: www.naturalengland.org.uk/Images/WMLG17_tcm6-11815.pdf

⁸ For guidance on what constitutes disturbance and other licensing queries, see Natural England (2007) Badgers & Development: A Guide to Best Practice and Licensing. www.naturalengland.org.uk/Images/badgers-dev-guidance_tcm6-4057.pdf, Natural England (2009) Interpretation of 'Disturbance' in relation to badgers occupying a sett www.naturalengland.org.uk/Images/WMLG16_tcm6-11814.pdf, Scottish Natural Heritage (2002) Badgers & Development. www.snh.org.uk/publications/online/wildlife/badgersanddevelopment/default.asp and Countryside Council for Wales (undated) Badgers: A Guide for Developers. www.ccw.gov.uk.

- deliberate disturbance of bat species as to affect significantly the local distribution or abundance of the species;
- damage or destruction of a breeding site or resting place; and
- keeping, transporting, selling, exchanging, or offering for sale whether live or dead or of any part thereof.

A European Protected Species Mitigation (EPSM) Licence issued by Natural England will be required for works liable to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake activities listed above. A licence is required to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and monitored.

Breeding Birds

Under the Wildlife & Countryside Act, 1981 (as amended), a wild bird is defined as any bird of a species that is resident in or is a visitor to the European Territory of any member state in a wild state. Game birds, however, are not included in this definition (except for limited parts of the Act). They are covered by the Games Acts, which fully protect them during the closed season.

Under the Wildlife & Countryside Act, 1981 (as amended), all birds, their nests and eggs are protected under Sections 1-8 of the Act and it is an offence, with certain exceptions, to:

- intentionally (or recklessly in Scotland) kill, injure, or take any wild bird;
- intentionally (or recklessly in Scotland) take, damage or destroy (or, in Scotland, otherwise interfere with) the nest of any wild bird while it is in use or being built;
- intentionally take or destroy the egg of any wild bird;
- have in one's possession or control any wild bird, dead or alive, or any part of a wild bird, which has been taken in contravention of the Act;
- have in one's possession or control any egg or part of an egg which has been taken in contravention of the Act;
- use traps or similar items to kill, injure or take wild birds;
- have in one's possession or control any bird (dead or alive) unless registered, and in most cases ringed, in accordance with the Secretary of State's regulations; and
- in Scotland only, intentionally or recklessly obstruct or prevent any wild bird from using its nest.

Certain rare species receive additional special protection under Schedule 1 of the Act and Annex 1 of the European Community Directive on the Conservation of Wild Birds (2009/147/EC). This affords them protection against:

- intentional or reckless disturbance while it is building a nest or is in, on or near a nest containing eggs or young;

- intentional or reckless disturbance of dependent young of such a bird;
- in Scotland only, intentional or reckless disturbance whilst lekking; and
- in Scotland only, intentional or reckless harassment.

The British Trust for Ornithology (BTO) has a list of birds that are Species of Conservation Concern. These birds are not legally protected but where they are found on site they should be given planning consideration. The criteria for birds listed as amber (medium conservation concern) include:

- historical population decline during 1800-1995, but recovering: population has more than doubled over last 25 years;
- moderate (25-49%) decline in UK breeding population over last 25 years;
- moderate (25-49%) contraction of UK breeding range over last 25 years;
- moderate (25-49%) decline in UK non-breeding population over last 25 years;
- species with unfavourable conservation status in Europe (Species of conservation Concern);
- five year mean of breeding pairs in the UK;
- ≥50% of UK breeding population in 10 or fewer sites;
- ≥50% of UK non-breeding population in 10 or fewer sites;
- ≥20% of European breeding population in UK; and
- ≥20% of NW European (wildfowl), East Atlantic Flyway (waders) or European (others) non-breeding populations in UK.

Hazel Dormice

The hazel dormouse (*Muscardinus avellanarius*) is fully protected under The Conservation of Habitats and Species Regulations 2017 through its inclusion on Schedule 2. Regulation 41 prohibits:

- deliberate killing, injuring, or capturing;
- deliberate disturbance as to impair its ability:
 - (i) to survive, breed, or reproduce, or to rear or nurture young; and
 - (ii) to hibernate or migrate.
- deliberate disturbance as to affect significantly the local distribution or abundance of the species;
- damage or destruction of a breeding site or resting place; and
- keeping, transporting, selling, exchanging, or offering for sale whether live or dead or of any part of this species.

The hazel dormouse is also currently protected under the Wildlife and Countryside Act 1981 (as amended) through its inclusion on Schedule 5. Under this Act, this species is additionally protected from:

- intentional or reckless disturbance;
- intentional or reckless obstruction of access to any place of shelter or protection; and
- selling, offering or exposing for sale, possession or transporting for purpose of sale.

A European Protected Species Mitigation (EPSM) Licence issued by Natural England will be required for works liable to affect dormouse breeding or resting places (N.B. this is usually taken to mean dormouse 'habitat') or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above. The licence will allow derogation from the relevant legislation but will also to enable appropriate mitigation measures to be put in place and monitored.

Herpetofauna (Reptiles and Amphibians)

The following species receive full protection under the Conservation of Habitats and Species Regulations 2017 (as amended) through their inclusion on Schedule 2.

- sand lizard (*Lacerta agilis*);
- smooth snake (*Coronella austriaca*);
- natterjack toad (*Epidalea calamita*);
- great crested newt (*Triturus cristatus*); and
- pool frog (*Pelophylax lessonae*).

Under this legislation, Regulation 41 prohibits:

- deliberate killing, injuring or capturing of species listed on Schedule 2;
- deliberate disturbance of any Schedule 2 species as to impair their ability:
 - (i) to survive, breed, or reproduce, or to rear or nurture young; and
 - (ii) to hibernate or migrate.
- deliberate disturbance of any Schedule 2 species as to affect significantly the local distribution or abundance of the species;
- deliberate taking or destroying of the eggs of a Schedule 2 species;
- damage or destruction of a breeding site or resting place; and
- keeping, transporting, selling, exchanging, or offering for sale whether live or dead or of any part of a species.

With the exception of the pool frog, these species are also currently listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Under this Act, they are additionally protected from:

- intentional or reckless disturbance (at any level);
- intentional or reckless obstruction of access to any place of shelter or protection; and

- 🌿 selling, offering or exposing for sale, possession or transporting for purpose of sale.

Other native species of herpetofauna are protected solely under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). These species include:

- 🌿 adder (*Vipera berus*);
- 🌿 grass snake (*Natrix natrix*);
- 🌿 common lizard (*Zootoca vivipara*); and
- 🌿 slow-worm (*Anguis fragilis*).

Under this legislation, for these species it is prohibited under Section 9(1) & (5) to:

- 🌿 intentionally (or recklessly in Scotland) kill or injure these species; or
- 🌿 sell, offer, or expose for sale, possess, or transport for purpose of sale these species, or any part thereof.

The following species are listed in respect to Section 9(5) of Schedule 5 of the Wildlife & Countryside Act 1981 (as amended) which only affords them protection against sale, offering or exposing for sale, possession, or transport for the purpose of sale:

- 🌿 common frog (*Rana temporaria*);
- 🌿 common toad (*Bufo bufo*);
- 🌿 smooth newt (*Lissotriton vulgaris*); and
- 🌿 palmate newt (*L. helveticus*).

Water Voles

The water vole (*Arvicola amphibius*) (= *terrestris*) is fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to:

- 🌿 intentionally kill, injure, or take (capture) this species;
- 🌿 intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection;
- 🌿 intentionally or recklessly disturb water voles while they are occupying a structure or place used for shelter or protection; and
- 🌿 sell, offer, or expose for sale, or have in his possession or transport for the purpose of sale, any live or dead water vole or part of this species.

Where development works are liable to affect habitats known to support water voles, Natural England must be consulted. All alternative design options must have been explored and communicated to Natural England in order to demonstrate that works have tried to avoid contravening the legislation e.g. the use of alternative sites, appropriate timing of works to avoid times of the year in which water voles are most vulnerable etc. Conservation licences for the capture and translocation of water voles may be issued by Natural England for the purpose of development activities if it can be

shown that the activity has been properly planned and executed and thereby contributes to the conservation of the population.

Otters

Otters (*Lutra lutra*) are fully protected under The Conservation of Habitats and Species Regulations 2017 through their inclusion on Schedule 2. Regulation 41 prohibits:

- 🌿 deliberate killing, injuring, or capturing of otters;
- 🌿 deliberate disturbance as to impair their ability:
 - (i) to survive, breed, or reproduce, or to rear or nurture young; and
 - (ii) to hibernate or migrate.
- 🌿 deliberate disturbance as to affect significantly the local distribution or abundance of the species;
- 🌿 damage or destruction of a breeding site or resting place; and
- 🌿 keeping, transporting, selling, exchanging, or offering for sale whether live or dead or of any part of this species.

Otters also receive protection under the Wildlife and Countryside Act 1981 (as amended) through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- 🌿 intentional or reckless disturbance (at any level);
- 🌿 intentional or reckless obstruction of access to any place of shelter or protection; and
- 🌿 selling, offering, or exposing for sale, possession or transporting for purpose of sale.

A European Protected Species Mitigation (EPSM) Licence issued by Natural England will be required for works liable to affect breeding or resting places or for activities likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above. The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and monitored.

Wild Mammals

All wild mammals are protected against intentional acts of cruelty under the Wild Mammals (Protection) Act 1996. Under this legislation it is an offence to:

- 🌿 mutilate, kick, beat, nail, or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

To avoid possible contravention of this legislation, due care and attention should be taken when carrying out works that have the potential to impact any wild mammal as described above.

Plants

Wild plants are protected under the Wildlife and Countryside Act 1981 (as amended) which makes it an offence for an 'unauthorised' person to intentionally (or recklessly in Scotland) uproot wild plants. An authorised person can be the owner of the land on which the action is taken, or anybody authorised by them.

Some rare plant species also receive full protection under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended). This prohibits:

- intentionally (or recklessly in Scotland) picking, uprooting, or destruction of any wild Schedule 8 species (or seed or spore attached to any such wild plant in Scotland only); and
- selling, offering, or exposing for sale, or possessing or transporting for the purpose of sale, any wild live or dead Schedule 8 plant species or parts.

In addition to the legislation outlined above, several plant species are fully protected under Schedule 5 of The Conservation of Habitats and Species Regulations 2017. Regulation 45 makes it an offence to:

- deliberately pick, collect, or destroy a wild Schedule 5 species; and
- be in possession of, or control, transport, sell, or exchange any wild live or dead Schedule 5 species or anything derived from it.

A European Protected Species Mitigation (EPSM) Licence issued by Natural England will be required for works liable to affect species of plant listed under The Conservation of Habitat and Species Regulations 2017.

Invasive Plant Species

Certain plants are listed on Part II of Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) in respect to Section 14(2). Species include:

- Japanese knotweed (*Reynoutria japonica*);
- giant hogweed (*Heracleum mantegazzianum*);
- Himalayan balsam (*Impatiens glandulifera*);
- certain species of rhododendron (*Rhododendron* sp.); and
- certain species of cotoneaster (*Cotoneaster* sp.).

Species listed are non-natives whose establishment or spread in the wild may be detrimental to native wildlife. Inclusion on Part II of Schedule 9 therefore makes it an offence to:

- plant or otherwise cause these species to grow in the wild.

This legislation makes it is an offence to cause species listed to grow in the wild. Therefore, if they are present on site and development activities have the potential to cause the further spread of these species to new areas, it will be necessary to ensure appropriate measures are in place to prevent this.

Habitats

International Statutory Designations

- Special Protection Areas (SPAs): Terrestrial SPAs are afforded protection by The Conservation (Natural Habitats, &c.) Regulations 1994 ((as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019) and offshore SPAs are afforded protection under The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended by EU Exit Regulations 2019). SPAs are designated under the EC Birds Directive (Council Directive 2009/147/EC on the Conservation of Wild Birds). SPAs are areas recognised as important habitat for rare and migratory birds within the European Union (rare birds as listed on Annex I of the Directive).
- Special Areas of Conservation (SACs): These areas are designated under the EC Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora), designated for the habitats and (non-bird) species listed on Annexes I and II to the Directive under the same regulations as detailed for SPAs.
- Ramsar sites: These areas are wetlands designated under the Convention on Wetlands of International Importance (1971). Wetlands can include areas of marsh, fen, water, or peatland and may be natural or artificial, permanent, or temporary. Ramsar sites are underpinned through prior notification as Sites of Special Scientific Interest (SSSIs) and as such receive statutory protection under the Wildlife & Countryside Act 1981 (as amended) with further protection provided by the Countryside and Rights of Way (CROW) Act 2000.

National Statutory Designations

- Sites of Special Scientific Interest (SSSIs): These sites are designated by the countryside agencies (for example Natural England) under the Wildlife & Countryside Act 1981 (as amended). Prior to 1981 these were designated under the National Parks and Access to the Countryside Act 1949. Improved mechanisms for the protection of SSSIs have also been introduced by the Countryside and Rights of Way Act 2000 (in England and Wales).
- National Nature Reserves: These sites are also designated by the countryside agencies under the Wildlife & Countryside Act 1981 (as amended).

Local Statutory Designations

- 1949 Local Nature Reserves (LNRs): These sites are designated by local authorities under the National Parks and Access to the Countryside Act 1949. These are sites recognised for their wildlife or geological interest at a local level and are managed for nature conservation.

Non-Statutory Designations

- Local Wildlife Sites: Areas of local conservation interest may be designated by local authorities. The terminology for these sites varies depending on the county. They can be called Sites of Nature Conservation Importance (SNCI's), Sites of Importance for Nature Conservation (SINCs), County Wildlife Sites (CWS), Listed Wildlife Sites (LWS), Local Nature Conservation Sites (LNCS), and Sites of Biological Importance (SBIs). The designation criteria may vary between counties. Local Wildlife Sites are of material consideration when planning applications are being determined.
- The Hedgerow Regulations 1997: These have been compiled to protect 'important' countryside hedgerows from damage or removal. A hedgerow is considered important if it (a) has existed for 30 years or more; and (b) satisfies at least one of the criteria listed in Part II of Schedule 1 of the Regulations. Under the Regulations, it is against the law to remove or destroy certain hedgerows without permission from the local planning authority. Hedgerows covered by these regulations include those on or adjacent to common land, SSSIs (including all terrestrial SACs, NNRs and SPAs), LNRs, land used for agriculture or forestry, and land used for the keeping or breeding of horses, ponies, or donkeys.

National Planning Policy

- The National Planning Policy Framework (NPPF) (2021) replaces the former NPPF 2019, 2018 and 2012, and the former PPS9 document and emphasises the need for sustainable development. The Framework specifies the need to protect and enhance biodiversity and geodiversity, identify and safeguard components of local wildlife-rich habitats and wider ecological networks including the hierarchy of international, national, and locally designated sites of importance for biodiversity; wildlife corridors; and stepping that connect them. Plus partnerships for habitat management, enhancement, restoration, or creation. The Framework aims to promote the conservation, restoration, and enhancement of priority habitats, ecological networks, and the protection and recovery of priority species. In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from adverse harm; appropriate mitigation or compensation measures are in place where significant harm cannot be avoided; opportunities to incorporate biodiversity in and around developments are encouraged; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

Local Planning Policy

North Dorset Local Plan (2016)

Policy 3: Climate Change

Development proposals within the District should seek to reduce greenhouse gas emissions including through appropriately sited renewable and low carbon energy developments. Where the proposal involves the re-use or extension of existing buildings, developments should seek to improve the buildings energy performance unless it can be demonstrated that it is not practical or viable to do so. Where the proposal includes new buildings they should:

- be located in line with the Core Spatial Strategy in Policy 2 and where possible in areas served by a good range of everyday facilities and facilitate cycling, walking and the use of public transport; and
- be designed to make best use of solar radiation and passive cooling through the incorporation of passive solar design principles; and
- incorporate measures to meet the current national targets for energy performance by incorporating measures into the building fabric itself or through the inclusion of renewable or low carbon energy measures.

Where this is not practical or viable, near-site or off-site measures may be considered.

Development should seek to minimise the impact of climate change overall through:

- incorporation of measures to reduce water consumption;
- avoidance of areas at risk of flooding from all sources and the incorporation of measures to reduce flood risk overall; and
- incorporation of measures to reduce the impact of excessive heat on the urban environment through the incorporation of green infrastructure and passive shading and ventilation.

Neighbourhood plans will be required to consider local community actions that will help to mitigate and adapt to climate change.

Policy 4: The Natural Environment

The natural environment of North Dorset and the ecosystem services it supports will be enhanced through the protection of environmental assets and the establishment of a coherent ecological network of designated sites and stepping stone sites linked via corridor features. Where development takes place, buffers should be provided to environmental assets to improve their biodiversity value and facilitate adaptation to climate change. Where opportunities exist, new habitats should be created to enhance this network further.

Developments that offer gains in biodiversity whether through the restoration of habitats or the creation of linkages between existing sites, will be looked upon favourably in the decision-making process.

Developments are expected to respect the natural environment including the designated sites, valued landscapes and other features that make it special. Developments should be shaped by the natural environment so that the benefits it provides are enhanced and not degraded.

Development proposals which seek to conserve or enhance the natural environment should be permitted unless significant adverse social or environmental impacts are likely to arise as a result of the proposal.

Landscape Character

The landscape character of the District will be protected through retention of the features that characterise the area. Where significant impact is likely to arise as a result of a development proposal, developers will be required to clearly demonstrate that the impact on the landscape has been mitigated and that important landscape features have been incorporated in to the development scheme.

Areas of Outstanding Natural Beauty (AONB)

Within the areas designated as AONB and their setting, development will be managed in a way that conserves and enhances the natural beauty of the area. Proposals which would harm the natural beauty of the AONBs will not be permitted unless it is clearly in the public interest to do so. In such instances, effective mitigation should form an integral part of the development proposals. Developers will be expected to demonstrate how they have had regard to the objectives of the relevant AONB management plan for the area.

Internationally Important Wildlife Sites

Developers should demonstrate that their proposals will not have significant adverse effects, including cumulative effects, on internationally important wildlife sites. Where this cannot be demonstrated, appropriate mitigation measures will be required otherwise permission will be refused. Mitigation measures for specific sites will include:

- 🌿 in relation to Fontmell and Melbury Downs SAC, contributions towards the effective management of the site to reduce recreational pressure;
- 🌿 in relation to Rooksmoor SAC, contributions towards the establishment of the North Dorset Trailway between Sturminster Newton and Stalbridge to reduce traffic pollution on the site;
- 🌿 in relation to the Dorset Heaths SAC, Dorset Heaths (Purbeck and Wareham) and Studland Dunes SAC, Dorset Heathlands SPA, and Dorset Heathlands Ramsar site, contributions from developments within 5km of the heathland designations towards the sustainable management of the heathland sites or contributions towards the provision of alternative accessible recreation space to reduce recreational pressure on the Dorset heathlands;

- in relation to the Poole Harbour SPA and Poole Harbour Ramsar site, developments within the harbour catchment will be required to be nitrogen neutral to avoid increasing nitrogen inputs into Poole harbour. A package of measures including upgrade of sewage treatment works or through the transfer of land from intensive agricultural use to less intensive grassland or woodland uses is available.

Sites of Special Scientific Interest (SSSIs)

Nationally designated wildlife sites should not be harmed by development unless it can be clearly demonstrated that the benefits of development clearly outweigh the impact on the site and the wider SSSI site network. Developers should demonstrate that their proposals will not have a negative impact, including cumulative impacts, on nationally designated wildlife sites.

Where the potential for harm is identified, effective mitigation measures will need to be put into place. Developments should seek to link sites together to contribute towards the establishment of a coherent ecological network.

Locally Designated Natural Environment Sites

Locally designated sites represent some of the most valuable local environmental sites. Development should have regard to the reasons for the designation and not harm the integrity of these sites nor connections between them and other environmental assets.

Development proposals should aim to avoid impact on local biodiversity sites however where impact is unavoidable; developers will be required to provide effective mitigation for this loss in biodiversity. As a last resort, compensation measures may be acceptable if effective mitigation cannot be provided. Such compensation measures must offer gains equivalent in magnitude to the loss resulting from the development.

Agricultural Land

The best and most versatile agricultural land will be safeguarded from permanent loss unless it can be demonstrated that there are no suitable alternative sites, or that the proposal has significant economic or social benefits that outweigh the loss of the land from agricultural uses, or that the proposal would support an existing agricultural business.

Species

Where there is likely to be an impact on nationally protected or locally rare or scarce species, an assessment of the impact on these species should be submitted to accompany development proposals. This should be appropriate to the scale of development and be informed initially through consultation with the local environmental records centre.

Appendix D

Plant Species List

Plant Species List

Scientific nomenclature follows Stace (2010) for vascular plant species and British Bryological Society (BBS) Special Volume No. 5 *English Names for British Bryophytes* for bryophyte species. Vascular plant common names follow the Botanical Society of the British Isles 2003 list, published on its web site, www.bsbi.org.uk. The plant species list was generated as part of a Phase 1 Habitat survey and does not constitute a full botanical survey.

Abundance was estimated using the DAFOR scale as follows:

D = dominant, A = abundant, F = frequent, O = occasional, R = rare, L = locally

Key to qualifiers: G = garden origin, P = planted, Y = young, S = seedling or sucker, T = tree, H = hedge, W = water, ? = identification uncertain.

| Scientific Name | Common Name | Abundance | Qualifier |
|------------------------------|----------------|-----------|-----------|
| <i>Acer campestre</i> | Field maple | O | H, T |
| <i>Alliaria petiolata</i> | Garlic mustard | O | |
| <i>Alnus sp.</i> | Alder | O | T |
| <i>Anthriscus sylvestris</i> | Cow parsley | O | |
| <i>Bellis perennis</i> | Common daisy | R | |
| <i>Betula pendula</i> | Silver birch | O | T |
| <i>Buxus sempervirens</i> | Box | R | P |
| <i>Carex sp.</i> | Sedge | R | |
| <i>Conium maculatum</i> | Hemlock | R | |
| <i>Crataegus monogyna</i> | Hawthorn | O | H |
| <i>Epilobium</i> | Willowherb | R | |
| <i>Fraxinus excelsior</i> | Ash | O | T, H |
| <i>Heracleum spondylium</i> | Common hogweed | O | |
| <i>Ilex aquifolium</i> | Holly | R | P |
| <i>Juncus sp.</i> | Rush | R | |

| | | | |
|--------------------------------------|---------------------|---|---|
| <i>Lolium perenne</i> | Perennial rye grass | O | |
| <i>Phalaris arundinacea</i> | Reed canary grass | R | |
| <i>Pinus sylvestris</i> | Scots pine | R | T |
| <i>Prunella vulgaris</i> | Self-heal | R | |
| <i>Prunus spinosa</i> | Blackthorn | O | H |
| <i>Rubus fruticosus agg.</i> | Bramble | O | |
| <i>Rumex sp.</i> | Dock | O | |
| <i>Salix sp.</i> | Willow | O | |
| <i>Sambucus nigra</i> | Elder | R | H |
| <i>Silene dioica</i> | Red campion | R | |
| <i>Sorbus aria</i> | Whitebeam | R | T |
| <i>Symphytum sp.</i> | Comfrey | R | |
| <i>Taraxacum vulgare agg.</i> | Dandelion | R | |
| <i>Triticum aestivum</i> | Wheat | D | P |
| <i>Ulmus sp.</i> | Elm | R | H |
| <i>Urtica dioica</i> | Common nettle | A | |

Appendix E

Suggested Compensatory Planting

Suggested Compensatory Planting

This section provides a list of plants which are of proven value to wildlife. The list is not exhaustive and merely provides a guide for suggested planting for wildlife value. Planting should be tailored on a site by site basis. The list includes some native and ornamental species however the emphasis should always be on the use of predominantly native species.

N = Native, NN = Non-native.

This list includes species that may be harmful if handled or ingested. Schedule 9 (Part 2) of the Wildlife and Countryside Act, 1981 (as amended) includes a list of invasive plants, including aquatic species, that should always be avoided in planting schemes.

Large Shrubs

Hedge veronica/Hebe (*Veronica* spp.) NN

Hawthorn (*Crataegus monogyna*) N

Blackthorn (*Prunus spinosa*) N

Rose: dog rose (*Rosa canina*), field rose (*R. arvensis*), burnet rose (*R. pimpinellifolia*) N

California lilac (*Ceanothus* spp.): (*C. arborea*) NN

Wild privet (*Ligustrum vulgare*) N

Common holly (*Ilex aquifolium*) N

Barberry (*Berberis* spp.): (*B. darwinii*), (*B. thunbergii*), (*B. x stenophylla*) NN

Daisy Bush (*Olearia* spp.): (*O. x hastii*), (*O. macrodonta*), (*O. traversii*) NN

Firethorn (*Pyracantha coccinea*) NN

Hazel: (*Corylus avellana*) N, (*C. maxima*) NN

Viburnum (*Viburnum* spp.): wayfaring tree (*V. lantana*) N, guelder rose (*V. opulus*) N, laurustinus (*V. tinus*) NN. Note: *V. lantana* can become invasive in more open habitats.

Dogwood (*Cornus sanguinea*) N

Broom (*Cytisus scoparius*) N

Escallonia (*Escallonia macrantha*) NN

Hardy fuchsia (*Fuchsia magellanica*) NN

Buckthorn (*Rhamnus cathartica*) N

Spindle (*Euonymus europaeus*) N

Tutsan (*Hypericum androsaemum*) N

Yew (*Taxus baccata*) N

Trees

Cherry (*Prunus* spp.): wild cherry (*P. avium*), bird cherry (*P. padus*), domestic plum (*P. domestica*) N, or cherry plum (*P. cerasifera*) NN

Ash (*Fraxinus excelsior*) N

Apple (*Malus* spp.): edible apple (*M. domestica*), crab apple (*M. sylvestris*) N

Pear (*Pyrus* spp.): edible pear (*P. communis*) NN

Small-leaved lime (*Tilia cordata*) N

Silver birch (*Betula pendula*) N

Yew (*Taxus baccata*) N

Black poplar (*Populus nigra*) N

Foxglove tree (*Paulownia tomentosa*) NN

Beech (*Fagus sylvatica*) N

Climbers

Jasmine (*Jasminum* spp.): summer jasmine (*J. officinale*), winter jasmine (*J. nudiflorum*) NN

Ivy (*Hedera helix*) N

Climbing hydrangea (*Hydrangea anomala* ssp. *petiolaris*) NN

Honeysuckle (*Lonicera* spp.): (*L. periclymenum*) N

Clematis (*Clematis* spp.) NN

Hop (*Humulus lupulus*) N

Firethorn (*Pyracantha atalantioides*) NN

Bulbs

English bluebell (*Hyacinthoides non-scripta*) N

Squill species (*Scilla* spp.) N/NN

Snowdrop (*Galanthus nivalis*) N

Winter aconite (*Eranthis hyemalis*) E

Crocus species (*Crocus* spp.) NN

Wild Daffodil (*Narcissus pseudonarcissus*) N

Onion species (*Allium* spp.) N/NN. Note: *Allium triquetrum* (three cornered leek) and *Allium paradoxum* (few-flowered leek) are Schedule 9 invasive plant species.

Wood anemone (*Anemone nemorosa*) N

Lesser celandine (*Ficaria verna*) N

Appendix F

Bird and Bat Box Designs

Bird and Bat Box Designs

Bird Boxes

| Example | Type | Dimension D x W x H (cm) | Target Species | Location |
|--|--|-----------------------------|---|---|
|  | Schwegler Nest Box 1B Hole-fronted 26mm entrance hole | 16 x 16 x 23 | Multi-purpose, including: blue-, marsh-, coal-, and crested tit, and possibly wren. All other species are prevented from using the nest box due to the smaller entrance hole. | Suitable walls or semi-mature/mature trees and shrubs; attached to a tree trunk or hung from branches. Ideal points include discrete areas away from predators, such as against walls, plant, and metal supports. |
|  | Schwegler Bird House 32mm entrance hole | 15 x 21 x 33 | Multi-purpose, including: great-, blue-, marsh-, and coal tit, redstart, nuthatch, pied flycatcher, and sparrows. | Fixed to a semi-mature/mature tree trunk, wall or fence using the hanging bracket on the back. Between 1.5 m and 3 m high, and should be sited higher if area has a particularly high cat population. |

| Example | Type | Dimension D x W x H (cm) | Target Species | Location |
|---|--------------------------------------|-----------------------------|---|--|
|  | Schwegler Sparrow Terrace 1SP | 20 x 43 x 24.5 | House sparrow. It may also occasionally attract tits, redstarts, and spotted flycatchers. | <p>In an elevated position such as on post/platform within dense shrub/tree planting or on top of lighting columns. Alternatively, they could be attached to the side of a building.</p> <p>The terrace can be fixed on to the surface of a suitable wall or incorporated into the wall. It is suitable for all types of houses in built-up areas, and on industrial and agricultural buildings such as barns, sheds, and factories. Due to its weight (15kg), it is not suitable for fences or garden sheds. Ideally place the terrace two metres or more above the ground. Either install on the surface of the wall using the plugs and screws provided or install directly into the wall. Cleaning is not necessary. The front panel can be removed by turning the screw hook.</p> |

Bat Boxes

| Example | Type | Dimension D x W x H (cm) | Target Species | Location |
|--|---|-----------------------------|---|--|
|  | <p>2F Schwegler Bat Box (General Purpose) with or without Double Front Panel</p> | <p>16 x 16 x 33</p> | <p>Without panel: Particularly successful with brown long-eared bat. Also used by noctule.</p> <p>With panel: Ideal for crevice-dwelling species: pipistrelles, Myotis species (particularly Daubenton's), Leisler's, and serotine.</p> | <p>On trees or buildings and at a height of 3 to 6m.</p> <p>In open sunny positions and in groups of 3 to 5 facing different directions.</p> <p>Please note that once bats have inhabited a roost site they may only be disturbed by licensed bat workers.</p> |
|  | <p>Chavenage Bat Box</p> | <p>10 x 18 x 38</p> | <p>Small crevice-dwelling bats: e.g. pipistrelles.</p> | <p>On trees in gardens or woodland and also on house walls. 2.5 - 5m high on a building, mature tree, or vegetation line (trees/tall hedge) or on a feeding/flight route in partial daytime sun.</p> <p>Please note that once bats have inhabited a roost site they may only be disturbed by licensed bat workers.</p> |

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