

**THE OLD MANOR HOUSE,
DONNINGTON, WEST SUSSEX**

**PRELIMINARY ECOLOGICAL
APPRAISAL & PRELIMINARY ROOST
ASSESSMENT**



A Report to: Hebden Design Studio

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ECOLOGY

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1. INTRODUCTION

1.1 BACKGROUND

In October 2020, Hebden Design Studio commissioned MMEcology to undertake a Preliminary Ecological Appraisal and Preliminary Roost Assessment at the Old Manor House in Donnington, West Sussex. This assessment is required to inform a planning application associated with the general repairs to the main house, conversion of the garage into accommodation and conversion of the thatched cart barn into a gym, along with the construction of a new carport and swimming pool.

To fulfil the above brief, it was necessary to assess the existing ecological interest of the site and appraise the potential for the buildings on site to support roosting bats. Therefore, a walkover survey and a bat roost assessment were undertaken on 7th October 2020 and a further survey undertaken 1st February 2022 for the thatched carport.

1.2 SITE DESCRIPTION

The application site is located at National Grid Reference SU 85145 01932, to the south of Chichester, within the Parish of Donnington.

The site comprises a large main house, a garage, an annex and a thatched car barn. The grounds comprise a lake to the front of the house as well as formal gardens, an orchard, a vegetable patch and a tennis court to the west. A large grass field is located in the southern half of the site, separated from the site by a tree and hedge lined boundary. Chichester canal runs along the southern boundary of the site. The grounds extend to approximately 10 acres in total.

The application site is situated within a rural setting, surrounded by open farmland to north and west. Chichester canal and towpath are located immediately to the south of the site, beyond which is further arable fields. To the east is the B2201, sparse residential dwellings and arable fields.

Figure 1 shows the location of the site in the wider landscape.

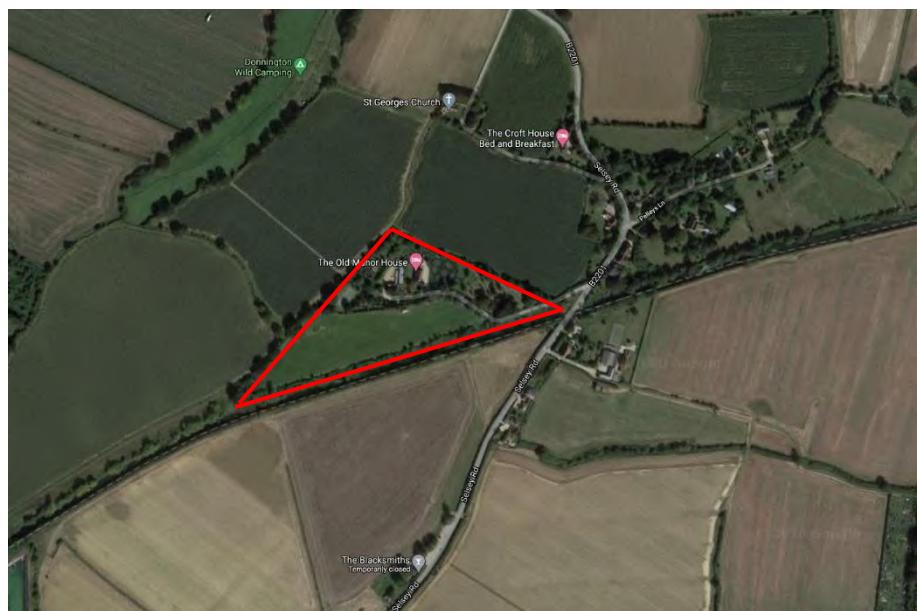


Figure 2. Location of the proposed site in the wider landscape (Source: Google maps)

2. METHODOLOGIES

2.1 DESK STUDY

An ecological desk study was undertaken to determine the presence of any statutory and non-statutory designated nature conservation sites and protected species within a 1km radius of the site. This involved contacting appropriate statutory and non-statutory organisations which hold ecological data relating to the survey area. MMEcology then reviewed the desk study data provided by the below organisations.

- Σ Natural England - MAGIC (Multi-Agency Geographic Information for the Countryside) website for statutory conservation sites.
- Σ The Sussex Biodiversity Record Centre.

The desk study included a search for European statutory nature conservation sites, UK statutory sites, non-statutory local designations and protected/notable species records within a 1km radius of the site. Due to the small scale and localised nature of the proposed works, this radius is considered to be appropriate.

The desk study also included a review of relevant local planning policy with regard to biodiversity and nature conservation.

2.2 PHASE 1 HABITAT SURVEY

The walkover survey was conducted following the Phase 1 Habitat Survey methodology of the Joint Nature Conservation Committee (JNCC, 2010) and the Institute of Environmental Assessment (IEA, 1995). Phase 1 Habitat Survey is a standard technique for classifying and mapping British habitats. The aim is to provide a record of habitats that are present on site. During the survey, the presence, or potential presence, of protected species was noted.

Based on the Guidelines for Ecological Impacts Assessment in the UK and Ireland (CIEEM, September 2018), valuation involves assigning a receptor to a geographic frame of reference, i.e. International, UK/National, Regional, County, and District, Local or Parish so that the level of weight or importance attached to any impact can be appropriately assessed. Therefore, each receptor on site was appointed a value.

An impact assessment was then carried out based on the proposals known for the site at the time this report was produced. This involved identifying impacts, incorporating measures to avoid and mitigate negative impacts and identifying opportunities for ecological enhancement, in accordance with the National Planning Policy Framework.

2.3 PROTECTED AND NOTABLE SPECIES APPRAISAL

A preliminary appraisal of the site to support protected and notable species was carried out. During the walkover survey, the potential presence of the following species was assessed:

Badgers *Meles meles*

An assessment of the habitats on site was undertaken to identify the suitability of the site for use by foraging and sett building badgers. This takes the nature of the surrounding landscape and connectivity with other areas of suitable habitat into account. The site was therefore subject to a comprehensive walkover assessment for the presence of badger field signs such as badger setts, footprints, runs, hairs, snuffle holes and latrines. Any signs recorded were plotted on the Phase 1 Habitat Map. Any setts found were classified according to the criteria used in the National Badger Surveys.

Reptiles

An assessment of the suitability of the site to support reptile species was undertaken, based on a review of habitat characteristics and other parameters known to influence reptile distribution such as site management and disturbance, vegetation structure, presence of refugia and potential hibernation habitat and connectivity to surrounding habitats of potential value to reptiles. Reptiles particularly favour scrub and rough grassland interfaces and the presence of these is a good indication that reptiles may be present on-site. In addition, reptiles may utilise features such as tussocky grassland for shelter and compost heaps and rubble piles for hibernation.

Great Crested Newts *Triturus cristatus*

Available ordnance maps were reviewed to identify the potential presence of waterbodies within a 250m radius of the site. Particular attention was paid to the presence of suitable connective, habitat linking the application site and the waterbodies. Any ponds separated by the presence of barriers to their dispersal such as busy roads (e.g. A roads) and running water (e.g. rivers) were subsequently scoped out.

Dormice *Muscardinus avellanarius*

A habitat and connectivity survey was conducted to determine the likelihood of dormouse being present within the site. This involved a walkover assessment of the site and the immediate environs. Particular attention was paid to the presence of key food sources such as hazel *Corylus avellana*, presence of large gaps in the vegetation, structural diversity of the habitats on site, presence of understorey habitat and connectivity to adjacent areas of woodland/scrub.

Nesting Birds

An assessment of the suitability of habitats present to support nesting bird communities, the presence of bird species that may potentially nest within the available habitat and evidence of nesting such as old or currently active nests was carried out.

Invertebrates

An assessment was made of the suitability of the site to support invertebrates. The assessment was based on the presence of habitat features which may support important invertebrate communities. These features include an abundance of dead wood, the presence of diverse plant communities, varied woodland structure, sunny woodland edges with a diverse flora and waterbodies.

Water voles *Arvicola amphibius*

A visual assessment of the water bodies within the site boundary, to determine suitability to support water voles was carried out in accordance with the specifications detailed by Dean et al. (2016). Any signs of water vole presence, such as burrows, feeding stations and latrines encountered were recorded.

Other Species

An assessment was made of the sites' suitability for notable species, Species of Principal Importance for the Conservation of diversity in England notified under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 and as listed in the England Biodiversity List, and Local Biodiversity Action Plan (LBAP) species, such as hedgehogs *Erinaceus europaeus*.

Invasive Species

During the field survey, any invasive species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) such as Japanese knotweed *Fallopia japonica* and giant hogweed *Heracleum mantegazzianum* were recorded and mapped.

2.4 PRELIMINARY BAT ROOST ASSESSMENT

In line with the specifications detailed in Bat Mitigation Guidelines (English Nature, 2004) and Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2016), a Preliminary Roost Assessment of the buildings on site was conducted. The Preliminary Roost Assessment was carried out on 7th October 2020 by Maral Miri, Principal Ecologist, MSc, MCIEEM, CEnv, Natural England Level 2 bat class licence holder. A visual assessment was undertaken to determine the presence of any Potential Roost Features (PRFs), together with a general appraisal of the suitability of the site for foraging and commuting bats. Examples of PRFs include behind hanging tiles, weatherboarding, soffit boxes, lead flashing and between tiles and the roof lining.

Any accessible PRFs were inspected using binoculars, a torch and endoscope for evidence of possible bat presence. The building on site was surveyed externally and internally.

Based on the PRF's present, the building on site was assessed using the suitability classes detailed within the Good Practice Guidelines (Collins, 2016), as detailed in Table 1.

Suitability	Description
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time.
Moderate	A structure with one or more potential roost sites that could be used by bats, but unlikely to support a roost of high conservation status.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).
Negligible	Negligible habitat features on site likely to be used by roosting bats.

Table 1. Classification for bat roost suitability

3. POLICY

3.1 NATIONAL PLANNING POLICY FRAMEWORK

The revised National Planning Policy Framework (NPPF) has been adopted since March 2019. Paragraph 175 of the adopted NPPF states “*when determining planning applications, local planning authorities should apply the following principles:*

- a) *if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
- b) *development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*
- c) *development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and,*
- d) *development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.”*

3.2 LOCAL PLANNING POLICY

Adopted Chichester Local Plan: Key Policies 2014-2029

Policy 48 ‘Natural Environment’ of the adopted Local Plan states that planning permission will only be granted where it can be demonstrated that the proposals respect and enhance the landscape character of the surrounding area.

Policy 49 ‘Biodiversity’ reiterates that developments should demonstrate that the biodiversity value of the site is safeguarded and any harm to protected habitats or species is avoided or mitigated. Furthermore, the proposal should aim to incorporate features that enhance biodiversity. Protection of the District’s network of ecology, biodiversity and geological sites, including the international, national and local designated sites (statutory and non-statutory), priority habitats, wildlife corridors and steppingstones that connect them is also reiterated within this policy. In accordance with this policy, any individual or cumulative adverse impacts on sites should be avoided.

Policy 50 of the adopted Local Plan is in relation to the disturbance of birds in Chichester and Langstone Harbours Special Protection Areas (SPA) as a result of the new developments in the area. It is Natural England's advice that all net increases in residential development within the 5.6km 'Zone of Influence' are likely to have a significant effect on the Chichester and Langstone Harbours SPA either alone or in-combination with other developments and will need to be subject to the provisions of Regulation 61 of the Conservation of Habitats and Species Regulations 2010. The proposals will not result in a net increase in the number of residential units on site and this policy is therefore is not considered to be relevant.

4. DESK STUDY RESULTS

4.1 STATUTORY DESIGNATED SITES

There are no statutory designated sites located within a 1km radius of the development site. The nearest statutory designation is Chichester and Langstone Harbours Special Protection Area (SPA) and Ramsar and Solent Maritime Special Area of Conservation (SAC), located 1.6km west of the site.

Chichester and Langstone Harbours SPA qualifies by supporting breeding populations of European importance including little tern *Sternula albifrons*, common tern *S. hirundo* and sandwich tern *Thalasseus sandvicensis* and overwintering populations of European importance of bar-tailed godwit *Limosa lapponica*, along with overwintering populations of European importance of a number of regularly occurring migratory species such as dark bellied Brent goose *Branta bernicla*, dunlin *Calidris alpina*, grey plover *Pluvialis squatarola* and redshank *Tringa totanus*.

Chichester and Langstone Harbours Ramsar qualifies for comprising two large estuarine basins linked by the channel, supporting an internationally important assemblage of species.

The qualifying features of the Solent Maritime SAC include:

- Σ Estuaries - The Solent encompasses a major estuarine system on the south coast of England. The Solent and its inlets are unique in Britain and Europe for their hydrographic regime of four tides each day, and for the complexity of the marine and estuarine habitats present within the area.
- Σ Spartina swards - The Solent contains the second-largest aggregation of Atlantic salt meadows in south and south-west England.
- Σ There are also a number of Annex I habitats and Annex II species (qualifying feature, but not a primary reason for selection of this site) such as mudflats and sandflats not covered by seawater at low tide, coastal lagoons and Desmoulin's whorl snail *Vertigo mouliniana*.

4.2 NON-STATUTORY DESIGNATED SITES

There is a single non-statutory designated site located within 1km of the application site. Chichester Canal Local Wildlife Site (LWS) runs immediately outside the southern boundary of the site. Since its abandonment in 1906, the Chichester Canal LWS has been relatively undisturbed. It has acquired a rich wildlife associated with its mosaic of open water, marginal vegetation, banks and bordering hedgerows. The reedbeds are of great importance, notably for birds. Some sections of the canal, particularly between Donnington and Birdham Road, have well developed reedbeds of common reed *Phragmites australis*. This is a scarce type of habitat in the County. Surveys have shown that the

canal's reedbeds support up to 8% of the County's breeding reed warblers *Acrocephalus scirpaceus*. Smaller numbers of sedge warblers *A. schoenobaenus* also nest here. The canal has an interesting marginal vegetation with species such as yellow flag *iris pseudacorus*, branched burreed *Sparganium erectum*, water-plantain *Alisma plantago-aquatica*, water dock *Rumex hydrolapathum*, reed sweet-grass *Glyceria maxima*, water mint *Mentha aquatica* and water forget-me-not *Myosotis scorpioides*. A scarce plant, lesser reedmace *Typha angustifolia*, grows in the shallow water. Great willowherb *Epilobium hirsutum* is locally abundant, both in the water and on the canal banks. The submerged aquatic vegetation tends to be poor. Yellow water-lily *Nuphar lutea* occurs in patches. Four species of duckweed have been recorded, including an unusual alien, least duckweed *Lemna minuscula*. The canal banks support scrub and rough grassland. This grassland has a few interesting herbs such as wild carrot *Daucus carota*, meadowsweet *Filipendula ulmaria* and common fleabane *Pulicaria dysenterica*. The dragonfly fauna of the canal is of some importance. It supports good numbers of black-tailed skimmer *Orthetrum cancellatum* and migrant hawker *Aeshna mixta*. The rare hairy hawker *Brachytron pratense* has been recorded from near Hunston.

The location of the Chichester Canal LWS is shown in Figure 2 below.

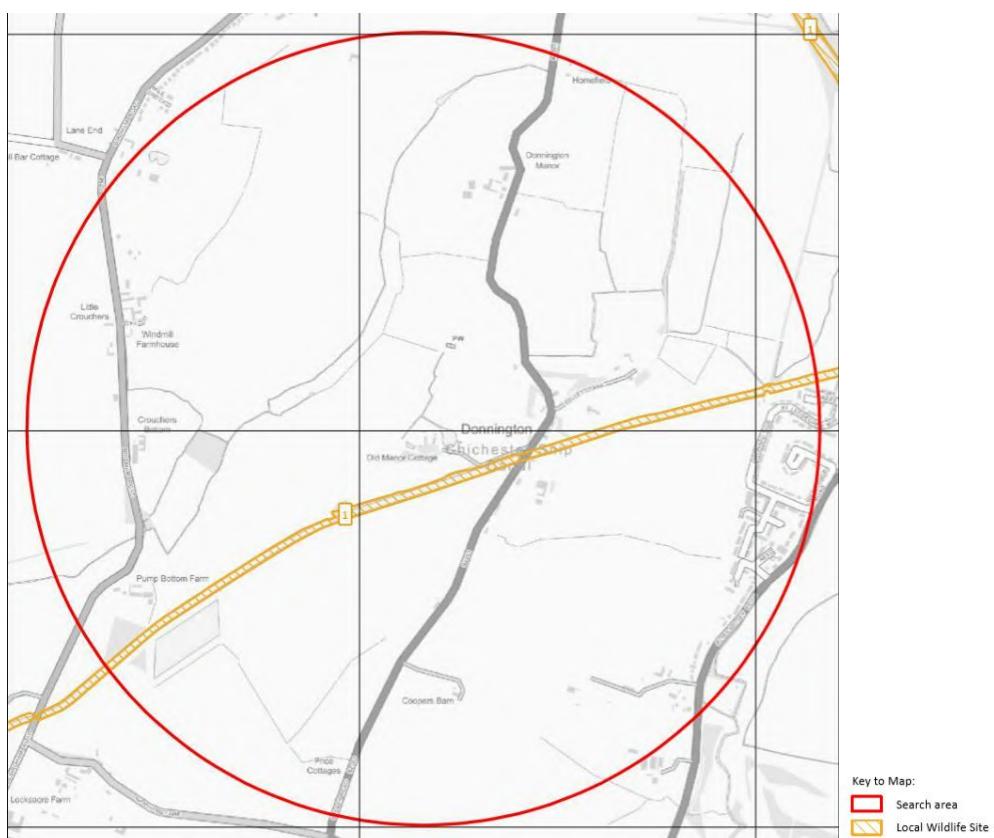


Figure 2. Location of the non-statutory designated sites within 1km radius of the site
(Source: Sussex Biodiversity Record Centre)

In addition to the above LWS, Solent Waders and Brent Goose Strategy ‘Low Use’ site ‘C34’ is located 615m south-west of the site. All ‘Low Use’ sites have the potential to be used by waders and Brent geese and the unmitigated loss of these sites would in combination negatively affect the long-term resilience of the SPA network.

4.3 NOTABLE HABITATS

A total of three notable habitat types, including reedbed, traditional orchard and coastal & floodplain grazing marsh is present within 1km radius of the site. The nearest notable habitat is reedbeds, located immediately outside the southern boundary of the site, in association with the Chichester Canal LWS.

Figure 3 below shows the location of these notable habitats which are listed as habitats of principal importance for the purpose of conserving biodiversity, as detailed within Section 41 of the Natural Environment & Rural Communities (NERC) Act (2006).

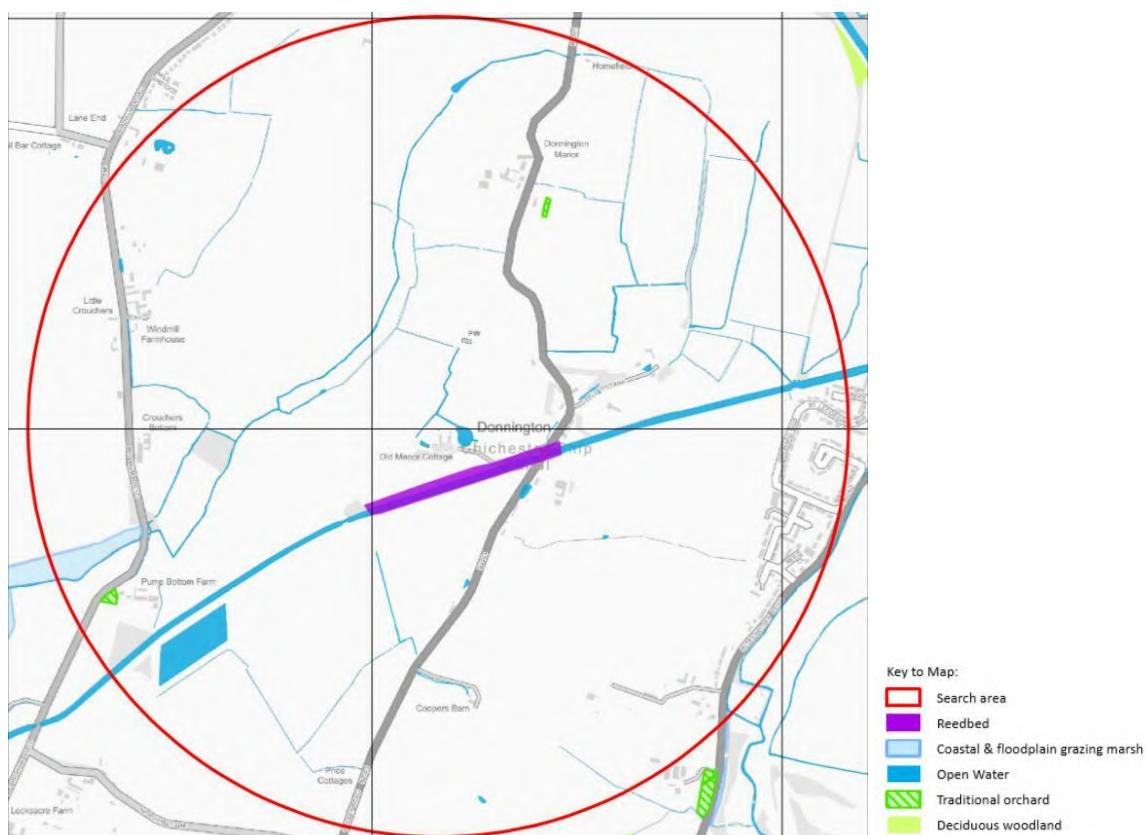


Figure 3. Location of notable habitats within 1km radius of the site (Source: Sussex Biodiversity Record Centre)

4.4 PROTECTED / NOTABLE SPECIES

The following text provides a summary of the protected and notable species records within a 1km radius of the application site, provided by the Sussex Biodiversity Record Centre. It should be noted that the absence of records should not be taken as confirmation that a species is absent from the search area.

Bats

Records of at least eight different species of bat have been returned from a 1km radius of the site. These include brown long-eared bat *Plecotus auritus*, common pipistrelle *Pipistrellus pipistrellus*, Daubenton's bat *Myotis daubentonii*, natterer's *M. nattereri*, noctule *Nyctalus noctule*, serotine *Eptesicus serotinus*, Nathusius pipistrelle *P. nathusii* and soprano pipistrelle *P. pygmaeus*.

The records are mainly from waterway transect surveys along the Chichester Canal, with the largest number of bats belonging to a record from approximately 650m east of the application site, of 58 Daubenton's bats (2019).

Amphibians

No records of great crested newts have been returned from 1km of the application site.

Reptiles

A single record of grass snake *Natrix Helvetica*, common lizard *Zootoca vivipara* and slow worm *Anguis fragilis* are present within 1km of the site (recorded between 1993 and 2018). The exact location for the records belonging to slow worm and grass snake has not been provided. However, the common lizard record is from a location approximately 900m south-east of the site.

Water Voles

94 records of water voles from 1981 to 2018 are present from within a 1km radius of the site. These records have been returned from Donnington Canal, Hunston Canal, Chichester Ship Canal (Birdham to Donnington section and Hunston to Donnington section), Chichester Canal (Birdham Stretch and at Hunston), Bremere Rife, Chichester Golf Course and a number of other locations. The nearest record is from the stretch of the Chichester Canal located immediately along the southern boundary of the site.

Small Mammals

Records of hedgehog *Erinaceus europaeus*, brown hare *Lepus europaeus*, harvest mouse *Micromys minutus* and polecat *Mustela putorius* have also been returned from 1km radius of the site.

Birds

Numerous records of notable birds have been returned by the Sussex Biodiversity Record Centre. These include a number of Schedule 1 bird species under the Wildlife and Countryside Act 1981 (as amended) such as bittern *Botaurus stellaris*, Slavonian grebe *Podiceps auritus*, marsh harrier *Circus aeruginosus*, hen harrier *C. cyaneus*, merlin *Falco columbarius*, hobby *F. Subbuteo*, barn owl *Tyto alba* and peregrine *F. peregrinus*. A number of red and amber listed bird species and those listed under UK BAP Priority Species and Section 41 of the NERC Act 2006 have also been provided. The majority of the records are from the Chichester Canal, with other locations including Chichester Gravel Pits, Hunston Copse, Sidlesham Common and north and south Mundham.

Invertebrates

Six records of stag beetle *Lucanus cervus* have been returned from 1km radius of the site, which are a UK Biodiversity Action Plan (BAP) Priority species, Nationally Scarce, and Sussex Rare species. The nearest record belongs to an adult female, recorded in 2014, found to the south of the Chichester Canal.

Historical records (from 1993) of moth species such as brindled beauty *Lycia hirtaria*, shaded broad-bar *Scotopteryx chenopodiata*, shoulder-striped wainscot and *Leucania comma*, white ermine *Spilosoma lubricipeda* have also been returned from the Chichester Canal, immediately to the south of the site.

A single record of large-mouthed valve snail *Valvata macrostoma* is also present from the Canal to the south of the site.

Invasive Plants

There are records of invasive plants such as Japanese knotweed *Fallopia japonica*, wall cotoneaster *horizontalis*, Virginia creeper *Parthenocissus quinquefolia* and curly waterweed *Lagarosiphon major* returned from 1km of the site.

Notable Plants

The Sussex Biodiversity Record Centre have returned a number of notable plant records within 1km radius of the site such as quaking-grass *Briza media*, coralroot *Cardamine bulbifera* (Nationally Scarce, Sussex Rare), early marsh-Orchid *Dactylorhiza incarnata subsp. incarnata* (Sussex Rare), fen bedstraw *Galium uliginosum* (Sussex Rare) and fringed water-lily *Nymphoides peltata* (Nationally Scarce). The nearest records belong to the Chichester Canal, located to the south of the site and include field mouse-ear *Cerastium arvense*, common cow-wheat *Melampyrum pratense*, fringed water-lily and hoary plantain *Plantago media*.

5. PHASE 1 HABITAT SURVEY

5.1 HABITATS

The Phase 1 Habitat survey of the site was carried out on 7th October 2020 by Maral Miri, Principal Ecologist, MSc, CEnv, MCIEEM, holder of Level 2 bat class licence, Level 1 great crested newt and dormouse licences from Natural England, with over 15 years of experience as a professional ecologist within both the private and public sector.

The following habitat types were recorded on site during the field survey:

Building and Hardstanding

The main dwelling on site, the Old Manor House, is a large two-storey brick building with a pitched roof covered by clay tiles, dating back to the 17th century. A single-storey brick garage with a pitched roof is located immediately to the north of the main dwelling. A single-storey annex building with a sloping lead roof is situated approximately 15m west of the main house. A carport with a thatched roof is present to the south-west of the annex, along with a relatively large greenhouse located approximately 6m to the north of the annex. A shepherd's hut is also sited along the northern boundary of the grass field in the southern half of the site (TN1).

The value of built structure is dependent on its suitability to support protected species such as roosting bats and nesting birds and is therefore further discussed in Section 5.3.

Areas of hardstanding on site are in the form of an access track off Selsey Road B2201 which is over 300m long and extends north-west to the main house and annex building (Figure 4). Other areas of hardstanding include the gravel courtyards to the front of the main house and the annex building (Figure 5). A tennis court is also present in the west of the site (Figure 6).

This habitat is considered to be of negligible ecological value.



Figure 4. View of the access track



Figure 5. View of the gravel courtyards



Figure 6. View of the tennis court on site

Standing Water

A large lake is located to the east of the Old Manor house (Figures 7 & 8). Approximately 50% of the lake is covered by water lilies *Nymphaeaceae*. The water quality is good. At the time of survey, a large population of ducks and a single coot *Fulica atra* were present within the lake. A large number of koi carp were also observed within the lake. A narrow strip of tall grass and herbs surround the lake, with species recorded including rush species *Juncus sp.*, common fleabane *Pulicaria dysenterica*, gypsywort *Lycopus europaeus*, yarrow *Achillea millefolium*, red clover *Trifolium pratense*, nettle *Urtica dioica*, bittersweet *Solanum dulcamara*, yellow flag *Iris pseudacorus* and some ornamental grass. Scrub and ornamental shrub are also scattered along the periphery of the lake.

This lake is considered to be of 'local' value.



Figure 7. View of the lake on site



Figure 8. View of the lake on site

A relatively small pond is located to the south of the formal garden (Figures 9 & 10). The water in this pond is clear and considered to be of good quality. Bulrush *Typha Latifolia* is the dominant species within the pond, with only 20% of open water present. Soft rush *Juncus effusus* is also present in this area.



Figure 9. View of the pond in the west of the site



Figure 10. View of the pond in the west of the site

Ponds provide important habitats for a range of flora and faunal communities. The pond on site is of good quality and forms part of a networks of ditches and ponds in the wider landscape. Therefore, it is appointed a 'local' value.

A small, man-made, concrete pond covered by water lilies and a net on top is located in the centre of the formal garden (TN2) (Figure 11).

This pond is small in extent and surrounded by areas of hardstanding and managed shrubs. Therefore, it is considered to be of 'site' value only.



Figure 11. Man-made pond in the centre of the formal garden

Other Habitats

A formal garden with a symmetrical layout is located in the west of the site (TN3) (Figures 12 – 16) and comprises low, box hedges *Buxus sp.* with ornamental shrubs and flowers and gravel/grass pathways. A small concrete pond is located in the centre of the formal garden (Figure 11). The shrubs and flowers recorded include vervain *Verbena sp.*, lavender *Lavendula sp.*, geranium species *Geranium sp.*, olive *Olea europaea*, moon daisy *Leucanthemum vulgare*, rosemary *Salvia rosmarinus*, aster *sp.*, hypericum species *Hypericum sp.*, Darwin's barberry *Berberis darwinii*, orpine *Hylotelephium telephium* and rose *Rosa sp.* The formal garden is enclosed by a managed yew *Taxus baccata* hedge,

approximately 2m tall, along the northern boundary and a brick wall along the southern boundary.

Whilst this habitat is of value to wildlife such as invertebrates, due to its management regime and mainly non-native nature, it is appointed a 'site' value.



Figure 12. View of the formal garden in the west



Figure 13. View of the formal garden in the west



Figure 14. View of the formal garden in the west



Figure 15. View of the formal garden in the west



Figure 16. View of the yew hedge along the northern boundary of the formal garden

A vegetable patch is located along the western boundary of the formal garden and at the time of survey contained tomatoes, raspberries, broad beans, runner beans, rhubarb and cabbage (Figures 17 & 18) (TN4). This habitat is of 'site' value.



Figure 17. View of the vegetable patch in the west



Figure 18. View of the vegetable patch in the west

A flowerbed, mainly dominated by roses, is located immediately to the south of the greenhouse on site (TN5) (Figure 19). This habitat is of 'site' value only.



Figure 19. Flowerbed to the south of the greenhouse

An orchard is located in the north (TN6) (Figures 20 – 22). Fruit trees recorded in this habitat include early mature medlar *Mespilus germanica*, plum *Prunus* sp., mulberry *Morus* sp., pear *Pyrus* sp., cherry *Prunus* sp., different varieties of apple *Malus* sp. and quince *Cydonia oblonga*. The amenity grassland below the trees is managed and supports a short sward height. In addition to the fruit trees which are mainly located in the eastern half, other trees such as weeping willow *Salix babylonica*, sycamore *Acer pseudoplatanus*, silver birch *Betula pendula*, ash *Fraxinus excelsior*, oak *Quercus robur*, beech *Fagus sylvatica*, guelder rose *Viburnum opulus*, hawthorn *Crataegus monogyna*, broad-leaved cockspur thorn *Crataegus persimilis* and tulip tree *Liriodendron tulipifera* are present.

Whilst the orchard on site appears to be of recent origins and is limited in extent, orchards are a Priority Habitat and for that reason it is given a 'local' value.



Figure 20. View of the orchard on site



Figure 21. View of the orchard on site



Figure 22. View of the orchard on site

Semi-improved Grassland

The southern half of the site is covered by an irregular shaped field of semi-improved grassland (Figures 23 & 24). The sward height was relatively short at the time of survey (approximately 200mm high). The dominant grass is perennial ryegrass *Lolium perenne*, with fescue *Festuca sp.*, Yorkshire fog *Holcus lanatus*, cocksfoot *Dactylis glomerata*, nettle and dove's-foot crane's-bill *Geranium molle* also present.



Figure 23. View of the semi-improved grass field in the west, looking west



Figure 24. View of the semi-improved grass field in the west, looking south

This habitat is of low species diversity and due to its management regime, it is of low structural diversity as well. Semi-improved grassland is common locally and nationally and therefore this habitat is appointed a 'site' value only.

Scrub

A narrow strip of continuous scrub forms the southern boundary of the semi-improved grass field located in the southern half of the site (Figure 25). The dominant species recorded is bramble *Rubus fruticosus*, with other frequent species including hazel *Corylus avellana*, willow *Salix* sp., hawthorn and elder *Sambucus nigra*.



Figure 25. View of the scrub along the southern boundary of the site

This habitat is common locally and could be easily created and therefore is considered to be of 'site' value.

Dry ditch

Along the northern and western boundaries of the orchard is a ditch, which was dry at the time of survey (Figures 26 & 27). No marginal or in channel vegetation were present, with a single willow growing within the ditch. A dry drainage ditch is also present along the western boundary of the semi-improved grass field, with another drainage ditch along part of the southern boundary of the access track (dry at the time of survey).

Due to the lack of water within this feature, it is appointed a 'site' value only.



Figure 26. View of the dry ditch on site



Figure 27. View of the dry ditch on site

Scattered Trees

A large number of trees are present throughout the application site. These trees are mainly found in association with areas of managed amenity grassland. The trees on site are mainly semi-mature; however, a number of mature species are also present. For full details of the trees on site, refer to the Arboricultural Survey report.

Trees are dotted along the southern boundary of the access track (Figures 28 & 29), in addition to a number of trees to the west of the tennis court (Figure 30). The western boundary of the semi-improved grass field is also lined with mature and semi-mature trees

such as oak, field maple *Acer campestre*, hawthorn, willow and hazel (Figure 31). Another line of trees is located along the northern boundary of the semi-improved grass field, with the species recorded including semi-mature white poplar *Populus alba*, holm oak *Quercus ilex*, sycamore, hawthorn and sweet chestnut *Castanea sativa* (Figures 32 - 34).



Figure 28. Example of trees along the access track



Figure 29. Example of trees along the access track



Figure 30. Example of trees to the west of the tennis court



Figure 31. View of the trees along the western boundary of the southern grass field



Figure 32. Example of trees along the northern boundary of the southern grass field

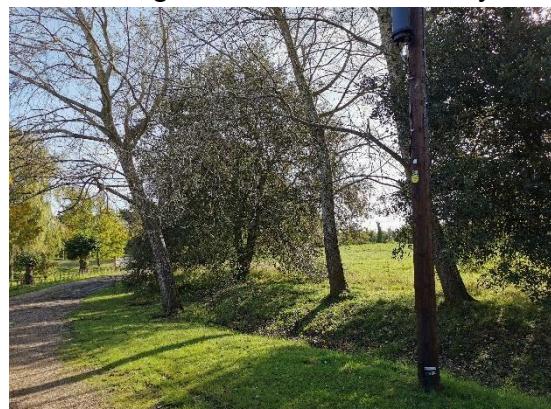


Figure 33. Example of trees along the northern boundary of the southern grass field



Figure 34. Example of trees along the northern boundary of the southern grass field

Another group of trees is located to the south of the Old Manor House, Annex and the formal garden and comprises quince, mature Lombardy poplar *Populus nigra*, cherry, silver birch and apple (Figures 35 – 37).



Figure 35. Example of trees to the south of the Old Manor House and annex



Figure 36. Example of trees to the south of the Old Manor House and annex



Figure 37. Example of trees to the south of the Old Manor House and annex

In the eastern part of the site is another area of parkland, with the trees present including weeping willow, copper beech *Fagus sylvatica f. purpurea*, beech, oak, silver birch, holm oak, alder *Alnus glutinosa* and pine *Pinus sp.* (Figures 38 - 40). Another group of trees scattered within areas of managed amenity grassland is located to the east of the tennis court and comprises olive trees, oak, silver birch, topiary yew *Taxus baccata*, beech, ash,

guelder rose, alder, field maple and cherry (Figure 41). A line of ornamental trees is also present along the western boundary of the annex's courtyard (Figure 42).



Figure 38. Example of trees in the eastern field



Figure 39. Example of trees in the eastern field



Figure 40. Figure 30. Example of trees in the eastern field



Figure 41. Example of trees to the east of the tennis court



Figure 42. View of the line of ornamental trees along the western boundary of the annex's courtyard

The treelines and group of trees on site provide suitable habitat for a wide range of protected and notable species. Furthermore, due to the semi-mature and mature nature of some of these trees, their large number and connectivity to the wider landscape, they are considered to be of high ecological value. Therefore, scattered trees on site are appointed a 'local' value.

Amenity Grassland

The rear garden of the Old Manor House comprises an area of managed amenity grassland, supporting a short sward height (Figure 43). The species recorded within this habitat include common bent *Agrostis capillaris*, dandelion *Taraxacum officinalis*, hawkbit species *Leontodon* sp., daisy *Bellis perennis*, white clover *Trifolium repens*, perennial ryegrass and fescue.



Figure 43. View of the amenity grassland associated with the rear garden of the Old Manor House

Amenity grassland is abundant on site and is present throughout the application site (e.g. eastern field, around the lake, along the access track, to the east, north and west of the tennis court, under the orchard trees, etc.). This habitat undergoes a strict management regime (short sward height). However, the eastern field supports patches of long grass, with abundant common fleabane, red clover, common vetch *Vicia sativa*, common knapweed *Centaurea nigra*, dock species *Rumex* sp., perforate St John's-wort *Hypericum perforatum* and creeping cinquefoil *Potentilla reptans* (TN 7) (Figures 44 & 45).



Figure 44. View of the field in the east with patches of taller grass



Figure 45. View of the field in the east with patches of taller grass sward

Overall, this habitat is of low ecological value due to its poor species diversity, regular management regime and lack of structural diversity. This habitat is common and could be easily created. Therefore, it is appointed a 'site' value only.

Ornamental Shrub

Ornamental shrubs are located along the borders of the rear garden of the Old Manor House (Figures 46 & 47), with some of the species recorded including bamboo, euonymus *Euonymus sp.*, Japanese anemone *Anemone hupehensis var. japonica*, Mexican orange blossom *Choisya ternata*, orpine and star of Persia *Allium cristophii*.



Figure 46. Example of ornamental shrub in the rear garden of the Old Manor House



Figure 47. Example of ornamental shrub in the rear garden of the Old Manor House

This habitat has limited extent on site and is mainly non-native. Therefore, it is considered to be of 'site' value only.

Hedgerows

A number of intact native hedgerows are present throughout the site, including a hedge along the southern (1.5m - 2m tall, managed hedgerow with hawthorn, field maple and occasional hazel) and northern (beech hedge) boundaries of the eastern-most field on site (Figures 48 & 49), along the western boundary of the application site (hawthorn, field maple and hazel hedge) (Figures 50 & 51), along part of the northern boundary of the semi-improved grass field (Figure 52), yew hedge forming the northern boundary of the

formal garden and a newly planted hedge close to the southern boundary of the lake on site (Figure 53). All the hedgerows on site are managed.



Figure 48. View of the hedge along the southern boundary of the eastern-most field



Figure 49. View of the hedge along the southern boundary of the eastern-most field



Figure 50. Example of the hedge along the western boundary of the site



Figure 51. Example of the hedge along the western boundary of the site



Figure 52. View of the hedge along part of the northern boundary of the semi-improved grass field



Figure 53. View of the newly planted hedge between the lake and the access track

Hedgerow are an important feature for foraging and commuting wildlife and provide connectivity between the habitats on site and the wider landscape. However, due to the management regime of the habitats on site, they are considered to be of 'local' value only.

5.2 PROTECTED SPECIES

Based on the nature of the habitats present on site, the following protected/notable species were considered during the survey:

Nesting Birds

The buildings, trees and hedgerows on site are suitable for supporting common and widespread bird species. Therefore, nesting birds are a notable consideration in relation to the proposals and a recommendation is made in Section 7.

Roosting Bats

The buildings and trees on site provide suitable roosting opportunities for bats. Bats are therefore considered to be a notable consideration in relation to the proposed works and therefore further recommendations are made in Section 7. For further details, refer to Section 5.3.

Foraging and Commuting Bats

The range of habitats on site such as orchard, treelines and the lake which is likely to support foraging Daubenton's bats, are considered to provide optimal foraging habitat for a wide range of bat species. Furthermore, the network of hedgerows and treelines on site provide high quality commuting corridors for bats. Foraging and commuting bats are considered to be a notable consideration in relation to the proposed works.

Reptiles

The boundaries of the semi-improved grass field in the south and areas of rank grass within the eastern-most field, compost heaps to the south of the pond, along with the areas of longer grass along the Chichester Canal (a short section to the south of the access track) are considered to provide shelter and refuge for reptiles. Therefore, reptiles are considered to be a notable consideration in relation to the proposals.

Amphibians (Great crested newts)

Review of the OS mapping indicates the presence of three ponds within a 500m radius of the site. Two of these ponds are located to the south of the Chichester Canal, which is considered to be a major barrier to the movement of this species. Another pond is located approximately 245m to the north-west of the site. The pond on site located to the south of the formal garden is considered to be suitable for breeding great crested newts.

Furthermore, the terrestrial habitats on site provide some suitable areas for this species in the form of compost heaps to the south of the pond, margins of the grass field located in the southern section of the site and areas of rank grass within the eastern-most field. The lake on site is not considered to be suitable for great crested newts due to the presence of a large population of fish and waterfowl and lack of egg laying habitat in the form of suitable submerged, emergent and marginal vegetation. Similarly, the small, man-made pond in the centre of the formal garden is considered to be of negligible potential to great crested newts.

Overall, great crested newts are considered to be a notable consideration in relation to the proposals.

Water voles

Whilst the Chichester Canal is located outside the southern boundary of the site, this habitat is considered to be suitable for water voles. The lake on site lacks any suitable banks for water voles and therefore this species is not considered to be a notable consideration within the site boundaries.

Badgers

Despite the presence of suitable sett making and foraging/commuting habitat, no evidence of badgers in the form of setts, snuffle holes, latrines, tracks or hairs was recorded on site. Badgers are therefore not considered to be a constraint in relation to the works.

Dormice

The network of hedgerows on site are considered to provide sub-optimal habitat for dormice. As the habitats on site are linked to other suitable habitats in the wider landscape (i.e. network of boundary hedgerows), the presence of this species could not be ruled out. Therefore, dormice are considered to be a notable consideration in relation to the works.

5.3 PRELIMINARY ROOST ASSESSMENT

Main Dwelling (Old Manor House) - External Inspection

The main house on site is a large, two-storey brick building with a pitched roof covered by clay tiles, dating back to the 17th century (Figure 54). A lean-to extension adjoins the northern elevation (Figure 55). The eastern roof supports three dormers, with the sides covered by hanging tiles (Figure 56). The northern gable-end is covered by hanging tiles (Figure 57). Presence of minor gaps behind the hanging tiles could not be ruled out. The roof tiles are generally in a good state of repair; however, gaps under some of the roof tiles is present (Figures 58 – 60). The ridge tiles appear to be in a good condition. A window is present in the northern gable-end, with two windows in the southern gable-end. The southern gable-end is in a good state of repair (Figure 61). A brick chimney is present in the western elevation, along with another chimney within the southern gable-end. The lead flashing around the base of the chimneys appears to be tightly sealed (Figures 62 & 63). Soffits are tightly sealed with no gaps present along the eaves (Figures 64 & 65).



Figure 54. View of the eastern (right) and western (left) elevations of the Old Manor House



Figure 55. View of the northern lean-to extension



Figure 56. View of the dormers



Figure 57. View of the northern gable-end hanging tiles



Figure 58. Example of lifted roof tiles



Figure 59. Example of lifted roof tiles



Figure 60. Example of lifted roof tiles



Figure 61. View of the southern gable-end



Figure 62. View of the lead flashing around the base of the chimney



Figure 63. View of the lead flashing around the base of the chimney



Figure 64. View of the tightly fitted soffit



Figure 65. View of the tightly fitted soffit

Main Dwelling (Old Manor House) - Internal Inspection

Internally, a single roof void, approximately 13m long is present (Figures 66 & 67). The apex to floor height is approximately 1.5m. The floor is insulated. Roofing felt is present between the rafters and the roof tiles. The roofing felt is in a good condition with no tears or cuts present (Figure 68). No ridge beam is present (Figure 69). One of the gable-ends is brick with the other one covered by roofing felt and vertical beams.



Figure 66. Internal view of the loft void



Figure 67. Internal view of the loft void



Figure 68. View of the roofing felt



Figure 69. No ridge beam present

Evidence of bats in the form of three droppings was found during the internal inspection of the loft void (Figure 70). Rodent droppings were also recorded on the loft floor.



Figure 70. Bat droppings found in the loft space

Overall, the Old Manor House is considered to be of high potential to roosting bats and a confirmed roost. Droppings alone could not be used to robustly identify bat species level. Therefore, a DNA analysis of the droppings will be carried out.

Garage

A detached garage is linked to the main house via a covered walkway (Figures 71 & 72). The garage supports a pitched roof, covered by clay tiles. The front elevation contains two wooden doors. The roof is in a relatively poor state of repair and contains a number of missing and lifted roof tiles, providing access into the void or potential roost features (Figures 73 - 76). Some of the ridge tiles are also missing (Figure 76). The brick gable-ends are in a good condition and tightly sealed.



Figure 71. View of the western (left) and eastern (right) elevations of the garage



Figure 72. View of the southern gable-end and the western elevation (left) and northern (right) elevation of the garage



Figure 73. Example of missing and lifted roof tiles



Figure 74. Example of missing and lifted roof tiles



Figure 75. Example of missing and lifted roof tiles



Figure 76. Missing ridge tile and lifted roof tiles

Internally, there is a loft void present; however, no hatch is present and therefore this space could not be inspected (Figures 77 & 78).



Figure 77. Internal view of the garage



Figure 78. Internal view of the garage

No evidence of bats in the form of droppings, feeding remains, urine staining, etc. was found during the external and internal inspection of the garage. Overall, the garage is considered to be of high potential to roosting bats.

Greenhouse

The greenhouse is considered to be of negligible potential to roosting bats (Figure 79).



Figure 79. View of the greenhouse

Annex Building

The annex is a long (approximately 25m long), single storey brick building with a sloping lead roof (Figure 80). It is understood that no roof void is present. The brickwork and the lead roof appeared to be in a good condition and well-sealed (Figures 81 & 82) and therefore this building lacks any potential roost features for bats. The soffits are also tightly fitted. As such, the annex is considered to be of negligible potential to bats.



Figure 80. View of the western elevation of the annex



Figure 81. View of the lead roof

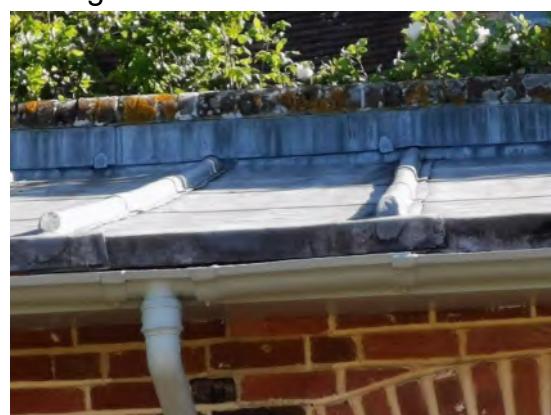


Figure 82. View of the lead roof

Thatched Carport

The carport is an open fronted structure with flint and brick walls and a thatched roof, used for storage (Figure 83). Internally, the straw/reed is fitted directly onto the beams and rafters (Figure 85). This structure is exposed to the elements. The western wall supports two cracks (Figure 86). These shallow features were inspected with the aid of an endoscope and no evidence of roosting bats was found. Similarly, there are no potential roost features identified between the rafters/beams and the straw/reed. No evidence of roosting bats was recorded during the external and internal inspection of this structure. The building is therefore considered to be of negligible potential to roosting bats.



Figure 83. View of the southern (right) and northern elevations (right) of the thatched carport



Figure 84. View of the of the thatched roof of the carport



Figure 85. View of the roof of the thatched carport



Figure 86. View of the western wall of the thatched carport

Trees

All trees on site were subject to a ground level roost assessment. This visual assessment of the trees aimed to determine the presence of any potential roost features within the trees. Examples of potential roost features include cankers, hazard beams, natural holes (e.g. knot holes), loose bark and woodpecker holes. A small number of trees were identified to support potential roost features for bats which are shown in the Phase I Habitat Map (TN8) (Figures 87 - 96).



Figure 87. Lombardy poplar tree with low bat potential (woodpecker hole) – south of the thatched carport



Figure 88. Cherry tree to the south of the Old Manor House with a knothole (low bat potential)



Figure 89. Oak tree along the western boundary of the southern grass field with a large cavity in the limb – moderate bat potential



Figure 90. Another oak tree along the western boundary of the southern grass field with a large cavity in the limb – moderate bat potential



Figure 91. Another oak tree along the western boundary of the southern grass field with a cavity in the limb – moderate bat potential



Figure 92. Another oak tree along the western boundary of the southern grass field with a wound – moderate bat potential



Figure 93. Silver birch tree in the corner of the eastern-most field with a cavity – moderate potential for bats



Figure 94. Another silver birch in the corner of the eastern-most field with a hazard beam – low potential for bats



Figure 95. Another silver birch in the corner of the eastern-most field with a knothole – low potential for bats

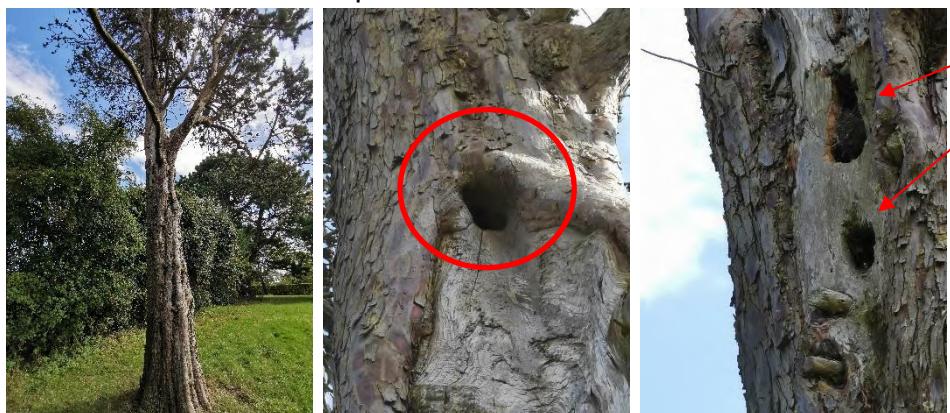


Figure 96. Pine tree in the eastern-most field with a natural hole and woodpecker holes – moderate potential for bats

5.4 ASSESSMENT OF BUILDINGS ON SITE

The main dwelling on site (Old Manor House) and the garage are considered to be of high potential to roosting bats. Furthermore, the internal inspection of the Old Manor House identified the presence of three bat droppings. Therefore, this building is a confirmed bats roost. The glasshouse, thatched carport and annex are considered to be of negligible potential due to the lack of entry points and/or suitable roosting features.

6. IMPACT ASSESSMENT

6.1 SUMMARY OF PROPOSALS

The proposals include general repairs to the main house, conversion of the garage into accommodation, conversion of the thatched cart barn into a gym, along with the construction of a new carport and swimming pool.

6.2 NATURE CONSERVATION SITES

There are no statutory designated sites located within 1km of the application site. The development will not result in a net increase in residential dwellings.

There is a single non-statutory designated site, Chichester Canal LWS, located immediately outside the southern boundary of the site. The proposals will not result in any direct impacts on this designation and are sufficiently away (>90m north) and separated by buffers in the form of other habitats to result in any indirect effects.

6.3 HABITATS

The proposals on site will result in the removal of a small number of trees and partial loss of areas of amenity grassland and hardstanding. Any habitats lost as a result of the proposals will be replaced with higher quality habitats through the new soft landscaping scheme. Therefore, no adverse impacts on the existing habitats or a net loss in biodiversity is considered likely. Nevertheless, in accordance with the local policy and National Planning Policy Framework, a number of recommendations are made in Section 7.

6.4 PROTECTED SPECIES

Nesting Birds

Works to the buildings on site and any tree felling/vegetation clearance, has the potential for impact on nesting birds, if the works are undertaken within the nesting bird season. As such, a recommendation is made in Section 7.

Water voles

The proposals will not affect the Chichester Canal which is located outside the southern boundary of the site. Furthermore, the proposed works footprint is located sufficiently away from the canal. Therefore, no direct or indirect impacts on this species is anticipated.

Reptiles

Currently, areas of suitable habitat for reptiles (e.g. field margins within the southern grass field and areas of tussocky grass within the eastern-most field) will remain unaffected by the proposals. Therefore, no adverse impacts such as loss of habitat and accidental killing/injury is likely.

Great crested newts

The proposals are unlikely to affect the pond located in the west of the site or areas of suitable terrestrial habitat. Therefore, impacts on this species, if present, is considered unlikely.

Dormice

The proposals will not affect the hedgerows on site. Felling of a small number of scattered trees will not have an adverse impact on dormice, if present.

Badgers

No evidence of badgers was found during the walkover survey work in October 2020. However, due to the presence of suitable habitat on site, a recommendation is made in Section 7.

Bats

All UK bat species are European protected species and are capable of being a material consideration in the planning process.

The glasshouse, thatched carport and the annex have been identified to have negligible potential for roosting bats. Therefore, no further nocturnal emergence/dawn re-entry surveys will be required in accordance with the current Good Practice Guidelines (Collins, 2016) and it can be concluded that any works to these structures could be carried out with no constraints in relation to roosting bats.

The main house and the garage are considered to be of high potential to roosting bats. Therefore, any works to these buildings has the potential to disturb or kill/injure bats and result in the loss/damage of a roosting location, if present. As such, a recommendation is made in Section 7.

7. RECOMMENDATIONS

7.1 HABITATS

- Σ Any trees required to be cleared to facilitate the development should be replaced with native trees. Recommended species to be used in the soft landscaping scheme include rowan *Sorbus aucuparia*, crab apple *Malus sylvestris*, cherry *Prunus avium*, yew, oak, common lime *Tilia × europaea*, horse chestnut *Aesculus hippocastanum* and beech.
- Σ Should any areas of amenity grassland be lost, it is recommended that a wildflower meadow seedmix such as Emorsgate EM1 is used to replace this habitat, which is of higher biodiversity value to standard lawn seed mixtures.
- Σ A selection of bird and bat boxes are recommended to be installed on the mature trees on site.

7.2 PROTECTED SPECIES

Nesting Birds

Any works to the vegetation and the buildings are recommended to be undertaken outside the nesting bird season. The nesting bird season is weather dependent but generally extends between March and end of August. If this is not possible, then any vegetation to be affected and the outbuildings to be demolished should be checked by an experienced ecologist for nesting birds immediately prior to works commencing. If birds are found to be nesting, any works which may affect them would have to be delayed until the young have fledged and the nest has been abandoned naturally.

Water voles

Should any works be carried out in close vicinity to the Chichester Canal, a Construction Environmental Management Plan (CEMP) may be required to ensure no indirect impacts on water voles through pollution incidents, noise, lighting and vibration.

Reptiles

Should the proposals require the removal of suitable reptile habitat on site, a survey to establish the presence/absence of reptiles on site will be required. Reptile surveys can be completed in suitable weather conditions between March and September (inclusive) and entail the installation of a series of artificial refugia in the form of squares of roofing felt approximately 500 mm x 500 mm to facilitate detection of reptiles. The refugia will then be checked on seven occasions. Should the presence of reptiles be confirmed, mitigation in the form of sensitive timing of the works and a phased clearance methodology under the supervision of an ecologist or a capture and re-location programme may be required.

Great crested newts

Should the proposals require the removal of suitable terrestrial habitat on site or impact the pond located in the west of the site, an eDNA survey between April and June should be carried out. This entails taking 20 water samples from the pond and sending to laboratories with adequate quality assurance standards for analysis. If the presence of great crested newts is confirmed, further population assessment surveys may be required and a European Protected Species Licence to allow the proposals.

Dormice

Should the hedgerows on site require removal, a dormouse survey may be required to establish the presence/likely absence of this species on site. The survey involves erecting a minimum of 50 no. dormouse nest tubes within suitable dormouse habitats at approximately every 20m. Nest tube surveys could only be carried out between April and November and should be checked by an appropriately licensed ecologist once a month. If the presence of dormice is confirmed, a European Protected Species licence will be required to enable the clearance works.

Badgers

Any deep excavations that need to be left overnight should be covered or fitted with mammal ramps to ensure that any animals that enter can safely escape.

Roosting Bats

The main dwelling and garage on site have been identified as having high potential to support roosting bats. Bat Surveys: Good Practice Guidelines published by the Bat Conservation Trust (Collins, 2016) recommends that for structures with high bat roosting potential three dusk emergence/dawn re-entry surveys are undertaken during the bat active season to determine the presence or absence of roosting bats. The peak bat survey season extends from May to August.

If a roost is discovered during these surveys, a Natural England European Protected Species licence may be required to enable the proposals. The licence application process will include the submission of a method statement detailing the current status of bats on site and how the favourable conservation status of the bat population will be maintained. Prior to a licence being issued, planning permission must be granted and relevant conditions relating to protected species must be discharged.

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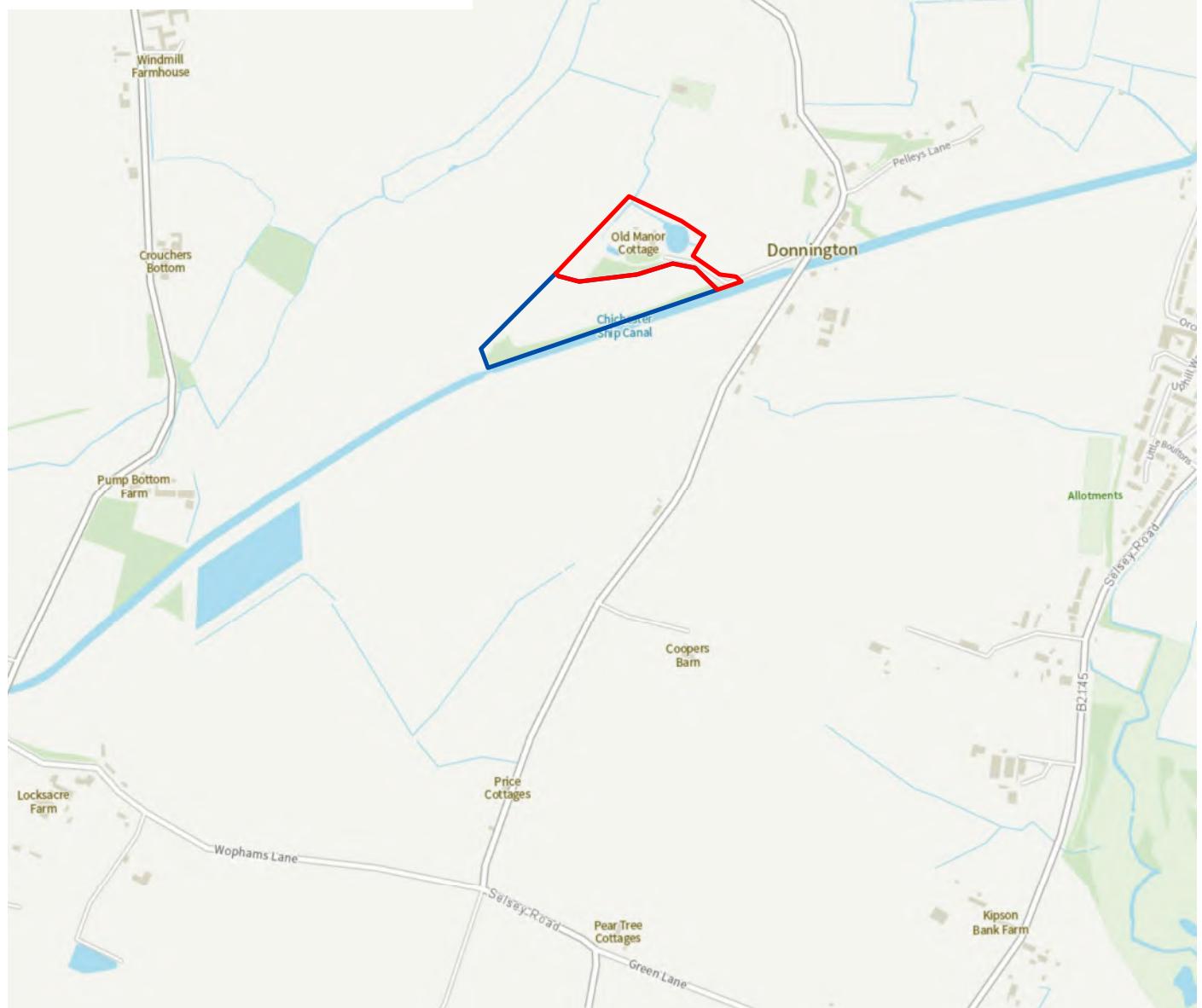
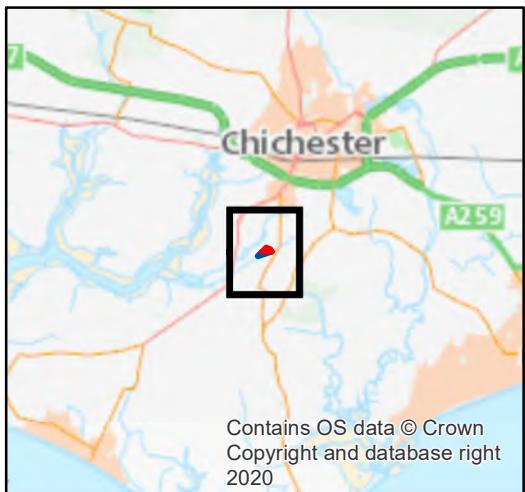
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APPENDIX A

Phase 1 Habitat Map



**The Old Manor House
Donnington
Preliminary Ecological
Appraisal & Preliminary
Roost Assessment**

Figure 1
Site Location

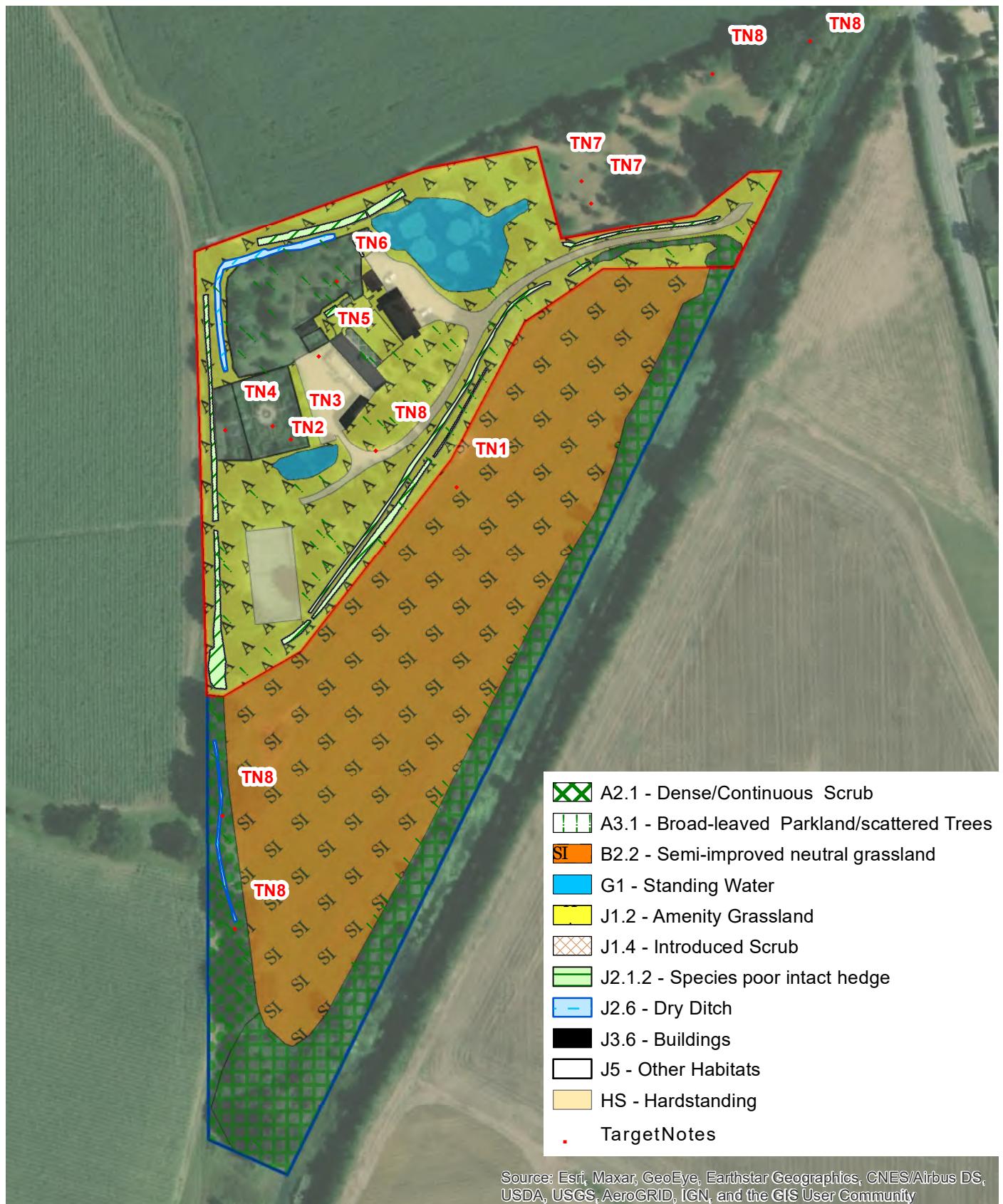
Site Boundary

- Red Line
- Blue Line

Metres
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SCALE: 1:10,000 @ A4

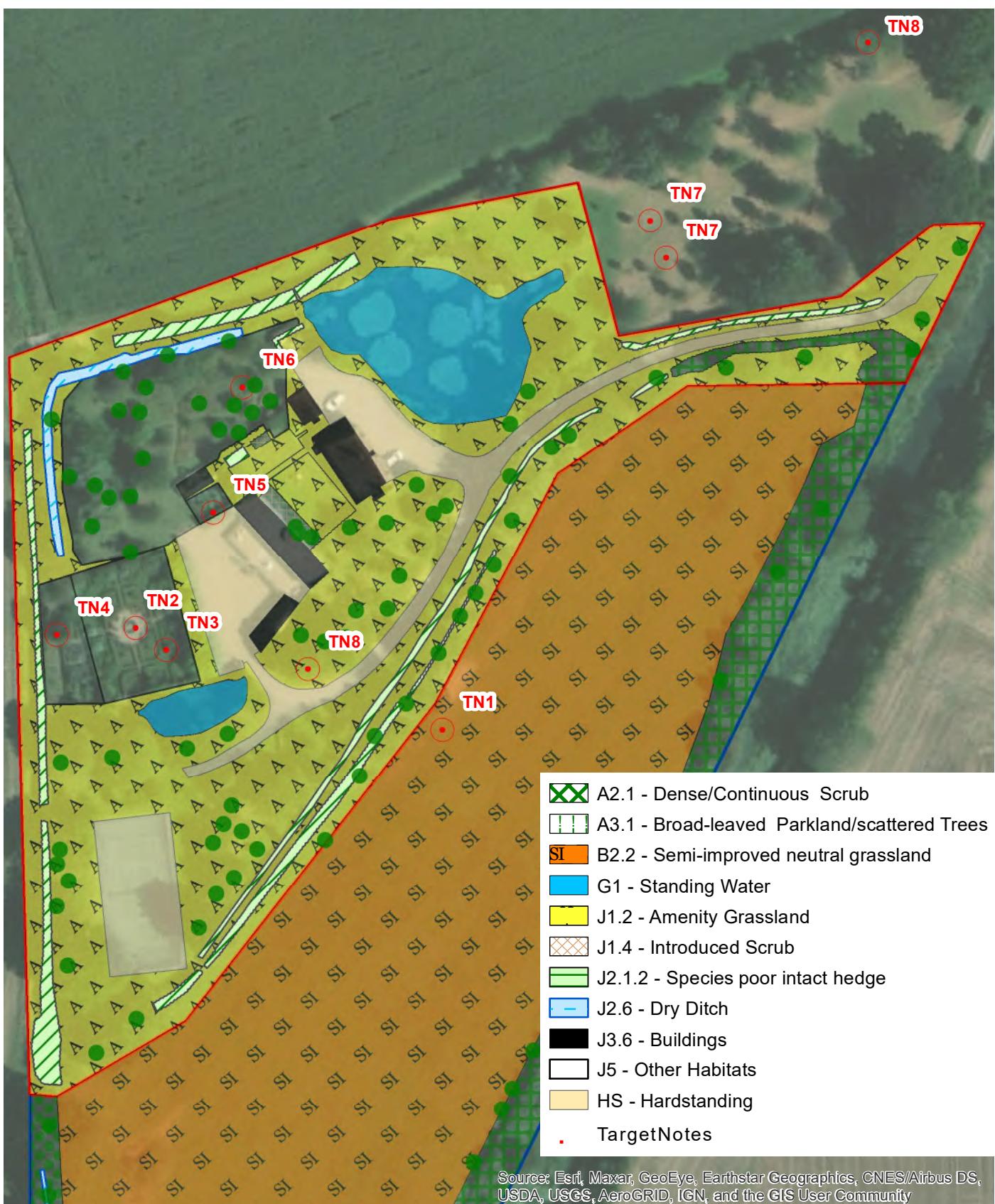
CONTENT: MM
CHECKED: MM
DRAWN: JG
VER: 1.0
DATE: 19/10/2020





Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

The Old Manor House Donnington Preliminary Ecological Appraisal & Preliminary Roost Assessment	Site Boundary	 	X Metres 0 10 20 30 40 50 SCALE: 1:2,000 @ A4	CONTENT: MM CHECKED: MM DRAWN: JG VER: 1.0 DATE: 21/10/2020	
	Figure 2 Phase 1 Habitat Map				



**The Old Manor House
Donnington
Preliminary Ecological
Appraisal & Preliminary
Roost Assessment**

**Figure 3
Phase 1 Habitat Map
(Garden Section)**

Site Boundary

- Red Line
- Blue Line



Metres
0 10 20 30
SCALE: 1:1,200 @ A4

CONTENT: MM
CHECKED: MM
DRAWN: JG
VER: 1.0
DATE: 21/10/2020

